

Northwest Pennsylvania Greenways Plan 2022 Update

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NORTHWEST PENNSYLVANIA GREENWAYS PLAN 2022 UPDATE

Including:

Clarion County
Crawford County
Erie County
Forest County
Lawrence County
Mercer County
Venango County
Warren County

Prepared for:

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INTRODUCTION

Northwest Pennsylvania is rich in recreation opportunities and natural resources that are unique and special to the area. Planning for the preservation and expansion of these regional assets and the value they provide is important for ensuring their future and the future benefit to the area. The Northwest Pennsylvania Greenways Plan, originally adopted in 2009, is a multi-county planning effort undertaken by the Northwest Regional Planning and Development Commission (Northwest Commission) on behalf of the eight counties it serves: Clarion, Crawford, Erie, Forest, Lawrence, Mercer, Venango, and Warren.



Figure 1. Northwest Pennsylvania Region Map. Detailed regional maps can be found on the data site.

Originally created as a synthesis of county greenway planning efforts, the 2009 Northwest Pennsylvania Greenways Plan aimed to capture efforts to conserve and enhance natural system greenway corridors, and establish new recreation and transportation greenway corridors in order to create a regional greenway and trail network that would provide benefits for current and future Northwest Pennsylvania residents.

Since 2009, efforts have continued throughout the region to plan for, expand, and preserve the greenways and trail network. To capture and guide these ongoing efforts, an update of the Northwest Pennsylvania Greenways Plan was initiated by the Northwest Commission in the Spring of 2022. Through the review of recent regional planning efforts, data collection and analysis, and community engagement, this update will build on and enhance the goals and implementation strategies

documented in the original planning process. This plan will also inform the Greenways Block Grant Program, which has funded over 100 related projects since the 2009 plan, to continue to implement the goals and recommendations of this plan.

The Northwest Commission initiated an update of the Northwest Pennsylvania Greenways Plan in the Spring of 2022 with the goal of furthering their efforts to:

- Conserve the region's essential natural resources;
- Identify projects which foster economic development through recreation and recreational partnerships;
- Determine techniques to strengthen regional resiliency in ways that both enhance quality of life and promote sustainable growth through the development of regional greenways and natural assets.

The Greenways Plan Update was developed in two parts- this conventional planning document, which provides detail on the planning process, its benefits, and the implementation recommendations; and the Northwest Pennsylvania Greenways Plan Update data site, which uses web maps to illustrate northwest Pennsylvania's abundant resources and opportunities, and the projects proposed to expand the region's greenways network. The data site allows users to interact with the maps and download the datasets, enabling data sharing and regional coordination. The site can be accessed at the following link: <https://northwest-greenways-plan-update-nwpa-commission.hub.arcgis.com/>



Oil Creek State Park. Source: <https://www.dcnr.pa.gov/StateParks/FindAPark/OilCreekStatePark/Pages/default.aspx>

REGIONAL OVERVIEW

A regional overview has been provided on the data site, allowing users to interact with the included datasets and more readily view detail for relevant areas of interest. The regional overview introduces the region and relevant information which has informed this planning process. The following maps and datasets are included:

- **Major Population Areas & Transportation Corridors:** This map includes the region's major population areas, as well as highways and railroads. This data is shown in reference to the major greenway corridors – the Erie to Pittsburgh Trail running north/south, the North Country Trail running west to northeast, the Redbank Valley Trail running east/west, the Allegheny National Forest, and primary water trails. This view provides a sense of regional connections and potential gaps.
- **Target Economic Development/ Future Growth:** This map illustrates Target Economic Development Locations and Future Growth Areas. The target locations were developed through meetings with County stakeholders, primarily economic development and planning personnel. These represent desirable sites for development based on land availability, market needs, re-use of existing building/infrastructure and general business attraction (e.g. “hot” development sites). They represent both areas for geographic expansion (e.g. industrial parks) and market expansion (e.g. targeted businesses such as solar and lumber). The Future Growth Areas were primarily extracted from County Comprehensive plan maps, or other zones of potential growth based on stakeholder meetings (e.g. drive time around I-80 corridor in Clarion). Also included are Pennsylvania Department of Community and Economic Development (DCED) Keystone Opportunity Zones.

- **Population Change & Census Data:** This map shows population change summarized by County from 2010-2019. For the last decade, the majority of the counties in the region have been experiencing population loss. From 2010 to 2019, Venango County experienced the greatest percent population loss at 7.85%, while Erie has experienced the least loss at 3.86%. This map also contains current census summary data, including population demographics and number of households. Also included on the map is environmental justice areas.
- **Historic & Cultural Resources:** This map depicts the state historical markers in the region and was published by the Pennsylvania Historical & Museum Commission. The region is rich with historical sites, as depicted by the many markers throughout the counties. These sites represent important cultural resources that the Greenways Plan seeks to help maintain and preserve, as well as facilitate access to through the maintenance and development of greenways and trails for public access.
- **Water Resources:** This map depicts streams, wetlands and 100-year flood zones in the region. These areas are important natural resources and sites that should be prioritized for preservation as part of the greenways network.
- **Impaired Waterways:** This map shows “non-attaining streams” as designated by the Pennsylvania Department of Environmental Protection. These features show recreational use attainment, or the risk associated with human recreation activities in or on a water body. (i.e. exposure to bacteria and other disease-causing organisms through water contact recreation like swimming or water skiing).
- **Unique Natural Features & Geological Features:** This map illustrates key natural features in the region that are important components of greenway network development. This includes PA designated “Wild and Scenic Rivers” and State Parks. Two bedrock geology datasets are included as well.

PURPOSE OF THE GREENWAYS PLAN

The development, expansion and maintenance of a greenways network helps preserve a region's essential natural resources and its unique character, while enhancing the quality of life for its residents. While the original 2009 Greenways Plan examined the various methods by which a greenways network could be developed for northwest Pennsylvania, this update examines progress since the 2009 plan and outlines next steps, in order to maintain and expand the northwest Pennsylvania greenways network.

In the thirteen years since that plan was adopted, work has continued throughout the region to preserve and develop the network proposed by the original plan. Much of this work has been funded by the Northwest Commission's Greenways Block Grant program. This plan informs the implementation of that grant program and helps prioritize project funding.

GREENWAYS BLOCK GRANT PROGRAM

The Greenways Block Grant Program is administered by the Northwest Commission and leverages grant funds through the partnership of the Department of Conservation and Natural Resources (DCNR) and the Department of Environmental Protection (DEP). In the past, funding has also included resources from the Pennsylvania Fish and Boat Commission and the Pennsylvania Game Commission. This method of incorporating cooperative consideration and funding by the public agencies of joint projects will implement the Northwest Pennsylvania Greenways Plan and meet DCNR and DEP's statewide and regional goals.

Since its inception, the Greenways Block Grant Program has funded over 100 projects that have contributed to the maintenance or expansion of the northwest Pennsylvania greenways network. These projects have included reforestation, trail and creek restoration work, stormwater best management practice implementation, and much more. The table below provides the projects completed through the programs 2022 Round A applications.

APPLICANT ORGANIZATION	APPLICATION YEAR	PROJECT TITLE
Allegheny Valley Conservancy	2009	Dotter's Eddy Reclamation and Enhancement
New Bethlehem Borough	2009	New Bethlehem Trail Town Plan
Millcreek Township	2009	Cassidy Park Restroom Facility
New Wilmington Borough	2009	McLure Run Restoration
Pulaski Township	2009	Deer Creek Stream Restoration
City of Titusville	2009	Bike Trail/Trailhead Engineering in Titusville, Hydetown Borough, and Oil Creek Township
Allegheny Valley Conservancy	2009	Allegheny River Canoe and Kayak Access at Dotter
Shenango River Watchers, Inc.	2009	Upper Shenango River Water Trail
Penn Soil Resource Conservation and	2009	North Country Trail Connector - Chapman SP Portion
Western Pennsylvania Conservancy	2009	Further Development of West Branch French Creek Conservation Area
Allegheny Valley Land Trust	2009	Redbank Valley Trail Feasibility Study
Crawford County Planning Commission	2009	Northwest PA Stormwater Management Implementation
Venango County Conservation District	2011	Wildlife Habitat Improvement at Two Mile Run Phase I
Lawrence County Planning Commission	2011	Lawrence County Stormwater Management Implementation
Crawford County Conservation District	2011	Crawford County Municipal Education and Outreach: Water Quality Regulations
New Bethlehem Borough	2011	Redbank Valley Trails Development - Clarion County
Venango County Conservation District	2011	Two Mile Run County Park Stormwater Development
Venango County Conservation District	2011	Wildlife Habitat Improvement at Two Mile Run Phase II
Lake Erie Region Conservancy	2011	West Road Access Improvement
Warren County Conservation District	2011	Warren County Agricultural Stewardship Program
Ellwood City Borough	2011	Ellwood City Ewing Park Greenways Hub

Western Pennsylvania Conservancy	2011	Oil Creek Streambank and Habitat Restoration
City of Titusville	2011	Titusville Trail Town Master Plan
Forest County Conservation District	2011	Middle Allegheny River Water Trail Map
Mercer County Conservation District	2011	Shenango River Watch Trail Phase II
Crawford County Conservation District	2011	Crawford County Riparian Tree Planting Program
Woodcock Township	2011	Woodcock Stormwater Management Demonstration
Spartansburg Borough	2011	East Branch Trail - Corry to Spartansburg Feasibility
Penn State University	2011	Aerial Imagery and LIDAR Data Acquisition for the PA Lake Erie Watershed Project
New Castle Human Services Center	2011	Green Roof for Fisher Building
Venango County Regional Planning	2011	Northwest PA Greenways E-Magazine
Cornplanter Township	2011	McClintock Trail Interpretive Panels
City of Sharon	2011	Bicentennial Park Riverbank
City of Oil City	2011	Hasson Park Erosion Control and Repair
Crawford County Planning Commission	2011	Woodcock Creek Lake Signage
Crawford County Planning Commission	2011	Zoning with Act 13 Regulations Training
Environment Erie	2011	Educating Professionals, Applicators, and Residents in Municipal and Residential Stormwater Management
Venango County Regional Planning Commission	2011	"Get Connected, Get Healthy, Have an Adventure" Hiking, Biking, and Water Trail Guide for PA's Great Lakes Region
Foxburg Borough	2011	Foxburg Trailhead
Venango County Regional Planning	2011	Stormwater Ordinance Implementation & Permitting Impacts
Venango County Conservation District	2011	Brannon Run and Sugar Creek Stabilization
Millcreek Township	2011	Walnut Creek Streambank Stabilization
Environment Erie	2011	Trout Run Plan Update
Environment Erie	2011	Service Learning Projects
Western Pennsylvania Conservancy	2014	Lake Pleasant Access Improvements
Mercyhurst University	2014	Elk Creek Trail
Ellport Borough	2014	Ellport Borough Community Park Drainage Improvement
Venango County Conservation District	2014	Municipal Permitting and Integrated Water Resource Management
Environment Erie	2014	Whole Foods Co-op Elmwood Commons Urban Rain Garden
City of Titusville	2014	Oil Creek Water Trail Feasibility Study
Rockland Township	2014	Wilson Park Rain Gardens
Western Pennsylvania Conservancy	2014	Brokenstraw Creek Watershed Improvement
Venango County Conservation District	2014	Cross Heavy Use Area
Venango County Conservation District	2014	Findlay-Fencing
City of Oil City	2014	Justus Park Trailhead
Meadville Area Recreation Authority	2014	Meadville Area Recreation Complex Trails
Emlenton Borough	2014	Implementation of Trail Route Through Emlenton Borough
Lake Erie Arboretum at Frontier	2014	Lake Erie Arboretum at Frontier Green Roof
Summit Township	2014	Conneaut Lake Waterway Trail and Launch Feasibility Study
Foxburg Borough	2014	Foxburg Trailhead, Bike Lane, and Parking Master Site Plan
Kingsley Township	2014	Kingsley Township Recreation Road Signage
Shenango River Watchers, Inc.	2014	Upper Shenango River Water Trail Map
Venango County Conservation District	2014	Deckard Run Channel and Streambank Restoration
Marienville Trail Riders Snowmobile Club	2014	Improvements of Marienville Trail Riders Snowmobile Trails
Marienville Trail Riders Snowmobile Club	2014	Marienville Trail Riders - Groomer
Marienville Trail Riders Snowmobile Club	2014	Marienville Trail Riders - Materials for Groomer
Crawford County Conservation District	2016	Crawford County Streambank Reforestation
Friends of the Marienville Area Library	2016	Marienville Area Library Building Project Rain Garden
Environment Erie	2016	Whole Foods Co-op Rain Garden
Venango County Conservation District	2016	VARHA-Manure Storage
Penn Soil Resource Conservation and	2016	Enhancing Erie Bluffs State Park Recreational Value Through Trail
Lawrence County Department of Planning	2016	Northwest Regional Water Quality Training Initiative
Titusville Redevelopment Authority	2016	Titusville Trail Expansion Feasibility and Bicycle Suitability Map Plan
City of Oil City	2016	Hasson Park Waterflow Improvements - Phase 2
Venango County Regional Planning	2016	Environmental Education Pollinator Garden and Rain Garden
Allegheny Valley Land Trust	2016	Redbank Valley Trails - Sligo Spur Improvements
Erie County Conservation District	2016	Headwaters Park Wetland Revitalization and Trail Expansion
Girard Township	2016	Lake Erie Community Park West Trail Improvements

Clarion County Conservation District	2016	Heavenly Gaits - Manure Storage
Western Pennsylvania Conservancy	2016	Caldwell Creek Restoration Phase II
Erie County Department of Planning	2016	Erie County Municipal Stormwater Assistance Program
Hamot Health Foundation	2016	Wayne Community Park and Playground Improvement
Union Township	2016	Scotland Meadows Park Raingarden
Buhl Park Corporation	2019	Engineering and Environmental Services for Buhl Park Wetlands
Allegheny Valley Trail Association	2019	Allegheny River Trail Infrastructure Improvement-Rockland Tunnel Area
Penn Soil Resource Conservation and	2019	West Branch of Tionesta Creek Trail Improvement
Venango County Conservation District	2019	Improved Animal Heavy Use Area and Stormwater Management-Pine Creek
City of Meadville	2019	Kenneth A. Beers Bicentennial Park Boat Launch Reconstruction
Erie County Department of Planning	2019	Municipal Stormwater Assistance
Venango County Conservation District	2019	Sugar Creek Streambank Stabilization
Venango County Conservation District	2019	East Branch of Sugar Creek Streambank Stabilization and Fish
Clear Lake Authority	2019	East Branch Trail - County Forest South Phase I
Redbank Valley Trails Association	2019	Lawsonham Arch Preservation
Clear Lake Authority	2019	East Branch Trail - County Forest South Phase II
Clear Lake Authority	2019	East Branch Trail - Hydetown to Mystic Park Road and Signage
Scrubgrass Creek Watershed Association	2019	Maintenance of Sterrett Passive Treatment System
Victory Township	2022	Fisherman's Cove Road Bank Stabilization
Clarion County Conservation District	2022	Rehberg Streambank Stabilization
Venango County Conservation District	2022	Improved Animal Heavy Use Area and Stormwater Management-Scrubgrass Creek
Venango County Conservation District	2022	Spring Development and Stormwater Management-Sugar Creek

WHAT IS A GREENWAY?

The term “Greenway” was first coined in the 19th century, and since that time greenways have been defined in many ways. Some people think of greenways as primarily recreational, namely trails for hiking, jogging, biking, or canoeing/kayaking (often called water trails or “blueways”). For them, greenways are places that offer opportunities to experience the outdoors. For others, the purpose of greenways is primarily for conservation of undeveloped land containing important natural resources like forests, wetlands, and stream banks, along with the plants and animals that live there. Still others see greenways in aesthetic terms, preserving the pastoral countryside setting in rural areas and protecting outstanding natural features such as, stream valleys, forested ridges, and sensitive habitats. Through the Northwest Pennsylvania Greenways planning process, the following definition was developed to define greenways for the northwest region’s participating counties:

A greenway is a corridor of open space. Greenways vary greatly in scale, from narrow ribbons of green that run through urban, suburban, and rural areas to wider corridors that incorporate diverse natural, cultural and scenic features. They may follow old railways, canals, or ridge tops, or they may follow stream corridors, shorelines, or wetlands, and include water trails.

Some greenways are for human activity and may accommodate motorized and non-motorized recreation and transportation uses. Other greenways conserve natural infrastructure for the benefit of community, economy, and environment and are not designed for human passage.

By planning to conserve and enhance natural system greenway corridors and build upon existing and establish new recreation and transportation greenway corridors, the counties within the northwest region are taking measures that will provide benefits for current and future generations of northwest Pennsylvania residents.

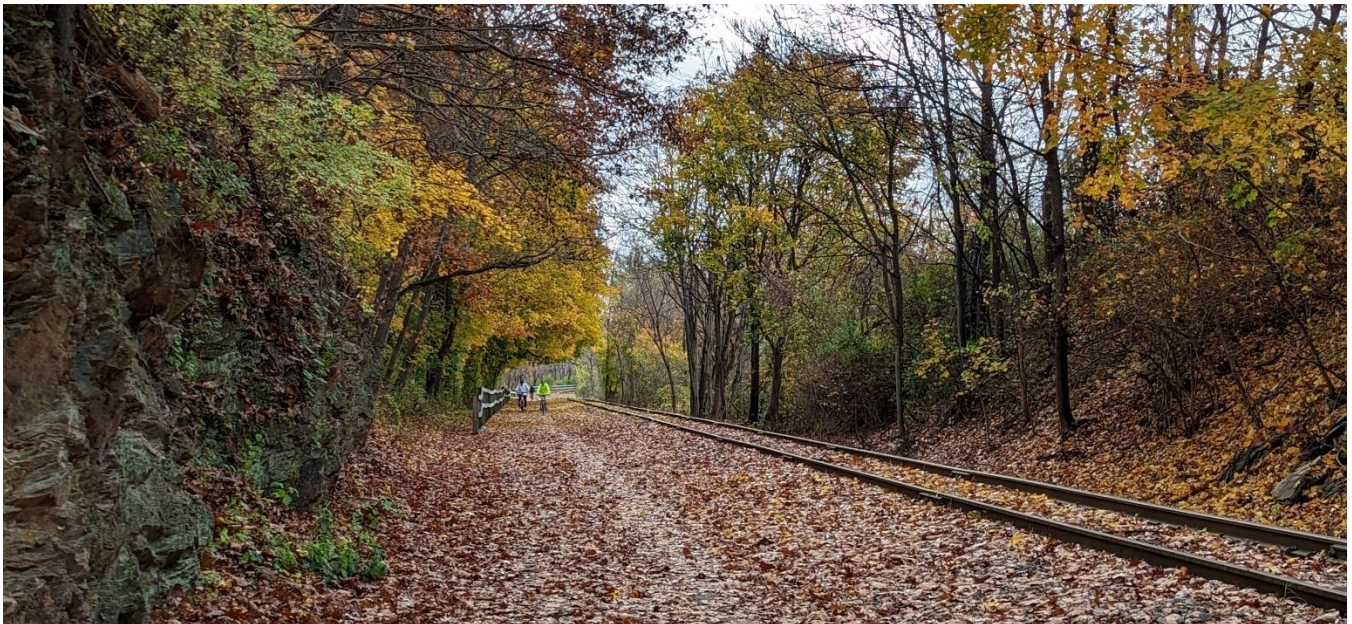


Photo Credit: Andrea Viazanko

WHY A GREENWAYS PLAN FOR NORTHWEST PENNSYLVANIA?

Wherever greenways are developed, they provide numerous and diverse benefits to local municipalities and their residents. This section of the plan focuses on those benefits that are especially applicable to greenways development in the northwest Pennsylvania region. Such benefits include:

- Promoting environmentally-sound land development
- Promoting land and water restoration
- Encouraging a network of non-motorized land and water transportation corridors to connect people to our resources
- Exploring opportunities to expand motorized off highway vehicle and snowmobile trail opportunities
- Conserving natural resource infrastructure resources
- Building capacity at the local level for implementation
- Encouraging economic development
- Promoting healthy living
- Enhancing regional quality of life

For example, greenway corridors established to preserve contiguous forest or open space protect habitat for wildlife, and in certain instances, habitat for threatened or endangered species. Greenways along rivers, streams, lakes, and reservoirs may have multiple advantages, such as habitat protection, flood control, and drinking water protection. Corridors linking areas of farmland and open space help to preserve the rural landscape and way of life. Many of these benefits are interrelated and work together to bolster quality of life in the region. For example, providing transportation alternatives in the form of trails, shared use paths, or safe routes to school leads to better health and fitness. Similarly, conserving historic and cultural resources supports economic prosperity by attracting visitors from outside and inside the region.

Northwest Pennsylvania contains a diversity of environmental, cultural, and historic resources. Municipalities, counties, and regional partnership organizations are committed to plan for the future of the region by promoting and conserving regional resources and utilizing a green infrastructure planning approach. Further, these entities are also committed to connecting residents with these resources by expanding existing, and establishing new, recreation greenways throughout the northwest region.

The process of preserving and expanding the northwest Pennsylvania greenways network will not take away the rights of property owners, nor will it restrict development in the region. The greenways network will promote sustainable development; attract new businesses; reduce development costs; and reduce the burden of providing public services on local, county, and state governments.

PRESERVING NORTHWEST PENNSYLVANIA'S DEFINING CHARACTERISTICS

From its diverse landscapes to its rich history, the northwest Pennsylvania region has a unique character that defines it and is deeply rooted in greenways. Maintaining and conserving northwest Pennsylvania's open spaces and natural resources is now of greater importance than ever. Conservation of these assets can play a key role in establishing a high quality of life for current and future generations. Residents enjoy the natural and recreational resources that set their community or region apart from everywhere else. The counties of the northwest region are almost entirely situated in the Allegheny Plateaus section of the Allegheny Mountains, except for the Central Lowland landforms along the Lake Erie coastline. The region's terrain within the Allegheny Plateau is rugged and heavily dissected by streams that have carved deep valleys and steep hillsides. The Wild and Scenic Allegheny and Clarion Rivers; the biologically diverse French Creek

corridor; the bluffs and Presque Isle Bay along the Lake Erie shore; the Oil Heritage Region; Pennsylvania Wilds; Lumber Heritage Region; and Allegheny National Forest are all part of defining the region's character.

Northwest Pennsylvania is rich in recreation opportunities and natural resources. Many of these resources are unique and special to the northwest region and beyond. They include:

- **Allegheny National Forest:** The Allegheny National Forest (ANF) is the only National Forest in Pennsylvania. The ANF covers more than 513,000 acres in McKean, Warren, Elk, and Forest Counties. Within the ANF there are over 1,000 miles of hiking, biking, ATV riding, and horseback riding trails. Swimming, boating, and fishing opportunities also exist in the Allegheny and Clarion Rivers, Tionesta Creek, and the Allegheny Reservoir.
- **Allegheny Reservoir:** The Allegheny Reservoir is over 24 miles in length at normal pool elevation and covers more than 21,000 acres at its maximum capacity. Additionally, the Allegheny National Forest, in Pennsylvania, and Allegany State Park, in New York, completely surround the reservoir with undeveloped forest land.
- **Allegheny River:** The Allegheny River totals approximately 325 miles in length from its headwaters in central Potter County to the point in Pittsburgh where it joins with the Monongahela to form the Ohio River. The portion of the river in northwest region is found in Warren, Forest, Venango, and Clarion Counties. One hundred and seven miles of the Allegheny River has been officially recognized as the Allegheny Wild and Scenic River Trail, presenting a wealth of non-motorized canoeing and kayaking opportunities. Additionally, more than 86 miles of the Allegheny River has been federally designated as a Wild and Scenic River.
- **Clarion River:** Approximately 52 miles of the Clarion River has been federally designated as a Wild and Scenic River.
- **French Creek:** French Creek is world renowned for its biodiversity. French Creek houses over 80 species of fish, and 26 species of freshwater mussels. This is more than any other stream in the Northeast United States. This includes over 15 species that are endangered or threatened. It has been said that French Creek is "undeniably one of Pennsylvania's foremost aquatic treasures." It has been designated by the Nature Conservancy as one of its original "Last Great Places."
- **Lumber Heritage Region:** The 15-county Lumber Heritage Region strives to promote the history and heritage of the lumber industry and its importance to Pennsylvania's development. The Region boasts a wide variety of natural, cultural, and historic resources. While celebrating the past, the grassroots effort works to build the region's economy and quality of life through education, conservation, and tourism promotion. The Region includes Clarion, Forest, and Warren Counties.
- **Pennsylvania Wilds:** The PA Wilds covers more than two million acres of public lands within areas such as state forests and state game lands and includes 12 northern Pennsylvania Counties. The 500,000 acre Allegheny National Forest is part of the PA Wilds. The PA Wilds offers a wide range of recreational activities from hiking and biking to hunting and fishing. Clarion, Forest, and Warren Counties are located within this region.
- **The Oil Heritage Region:** This region includes outstanding artifacts, scenic views, area museums, and cultural traditions; and the communities themselves continue to depict the Oil Region's legacy as the birthplace of the petroleum industry. The Oil Region was designated by the Commonwealth of Pennsylvania as an official Pennsylvania Heritage Area in 1994 and by the National Park Service as an official National Heritage Area in 2004. The state and federal designations use the same boundaries, comprising 34 municipalities in 708 square miles. Included are, the City of Titusville, Hydetown Borough, and Oil Creek Township in eastern Crawford County, plus all of the municipalities located within Venango County.

- **World Class Steelhead Fishing Streams:** These streams are located in Erie County and include Twelvemile, Sixteenmile, and Twentymile Creeks; Crooked Creek; Elk Creek; and Walnut Creek.
- **U.S. Route 6 Heritage Region:** Pennsylvania's U.S. Route 6 covers over 400 miles within northern Pennsylvania. U.S. Route 6 stretches beyond Pennsylvania's borders both east and west and continues on to the Atlantic and Pacific coasts. U.S. Route 6 crosses through Crawford, Erie, and Warren Counties, in the northwest Pennsylvania region, and is also Pennsylvania Bicycle Route Y.
- **North Country National Scenic Trail:** This recreational trail stretches for about 4,600 miles from North Dakota to New York. The route for this trail runs through Lawrence, Clarion, Venango, Forest, and Warren Counties within the region.
- **Washington's Trail:** This trail is an historic and scenic driving route commemorating George Washington's first military and diplomatic journey in 1753 and 1754. The portion of this trail within the northwest region runs through Venango, Crawford, and Erie Counties.
- **Erie National Wildlife Refuge:** Located in Crawford County, it is the only refuge in the nation protecting endangered northern riffleshell and clubshell mussels. It is also designated as an Important Bird Area and a globally-significant watershed. Three distinct habitats of forest, fields, and water's edge support 47 species of mammals, and 37 species of amphibians and reptiles.
- **Erie to Pittsburgh Trail:** This system of non-motorized, multi-use trails runs through Clarion, Venango, Crawford and Erie Counties, allowing users to experience small towns, rural landscapes, historic sites, and cultural areas. Much of the trail corridor runs along waterways and acts as a riparian buffer helping to protect the adjacent water ways.

The Pennsylvania DCNR, Bureau of State Parks provides eight state parks in northwest Pennsylvania, including:

- 1) **Oil Creek State Park:** It consists of approximately 6,250 acres in northern Venango County along Oil Creek. The Oil Creek Valley is home to the site of the world's first successful commercial oil well located in Drake Well Museum and Park, abutting Oil Creek State Park. The park tells the story of the early petroleum industry by interpreting oil boomtowns, oil wells, and early transportation.
- 2) **Chapman State Park:** It is an 804-acre park located in Warren County which includes a 68 acre man-made lake. This park is known as a recreation oasis within the wilderness area of the Allegheny National Forest.
- 3) **Cook Forest State Park:** This park is approximately 8,500 acres in northeast Clarion County, in an area once called the Black Forest due to its stands of old growth forest.
- 4) **Pymatuning State Park:** It is located in Crawford County and is the second most visited state park in Pennsylvania. It is also one of the largest at over 17,000 acres.
- 5) **Presque Isle State Park:** It is located in Erie County along the Lake Erie shore. It is the most visited state park in Pennsylvania and one of the best locations for birds in the state.
- 6) **Erie Bluffs State Park:** It is one of Pennsylvania's most recent state parks, situated along Lake Erie in Erie County. It contains old growth forest, rare flora, exceptional value wetlands, and significant archeological sites.
- 7) **McConnell's Mill State Park:** This 2,546-acre park found in Lawrence County contains Slippery Rock Creek Gorge and a historic 19th-century grist mill and wooden covered bridge.
- 8) **Maurice K. Goddard State Park:** This nearly 3,000-acre state park features the 1,860-acre Lake Wilhelm, which is a popular destination for anglers.

The Pennsylvania DCNR, Bureau of Forestry also includes two forest districts within the northwest Pennsylvania region. They are two of eight in the larger PA Wilds Region and include:

- 1) **Cornplanter State Forest:** This 1,585 acre state forest is named in honor of Chief Cornplanter, Native-American leader of the Seneca tribe, who maintained peace between the fledgling US government and the Iroquois from 1784 to 1812. Cornplanter State Forest covers land in:
 - Forest County
 - Crawford County
 - Warren County
- 2) **Clear Creek State Forest:** Many of Clear Creek State Forest's 16,716 acres hug the Clarion and Allegheny rivers. Other tracts rest on the Allegheny Plateau and grow a diverse collection of trees, including: red oak; white oak; red maple; birch; beech; tulip poplar. This state forest covers land in:
 - Clarion County
 - Venango County
 - Forest County
 - Mercer County
 - Jefferson County (outside this plan's study area)

In addition to its abundant natural and recreational assets, the region also has a rich history that is well-preserved. The region is comprised of many significant sites and structures, some of which are within the Oil Heritage Region. The region boasts 22 historic districts. Greenways linking historic resources with the region's recreational amenities will increase their accessibility and attract more tourists.

ECONOMIC BENEFITS OF GREENWAYS

The northwest region contains numerous natural and recreational resources that are important assets for providing the potential for substantial growth in the travel and tourism sector. This fact, in conjunction with the region's proximity to major population centers, such as Cleveland, Buffalo, and Pittsburgh, as well as its location along major transportation routes like U.S. Interstate 80, Interstate 79, and Interstate 90 make it a logical place for development in Pennsylvania's tourism sector.

Recent data shows a decrease in the tourism sector for the state, with visitation falling by nearly sixty million travelers in 2020, according to Pennsylvania's Tourism Office. This is directly related to a reduction in nationwide travel during the Coronavirus Pandemic. However, during the same time, for areas like northwest Pennsylvania with significant outdoor recreation resources, day trips and shorter, local travel was at an all time high as people looked for safe ways to recreate.

According to the U.S. Department of Commerce Bureau of Economic Analysis, Pennsylvania has the sixth largest outdoor recreation economy in the country, with outdoor recreation contributing \$14 billion dollars to the state economy and supporting approximately 150,000 jobs. Outdoor recreation is an important economic driver in the state and delivers economic benefits to rural communities, brings in income from out of state visitors, and provides sustainable economic and environmental benefits. Outdoor recreation accounts for 1.5% of the state's total economic productivity.

The economic benefits of greenways are well-documented by several studies completed along developed trails. In 2013, Rails-to-Trails Conservancy (RTC) conducted a study of the six connected trails that make up the central leg of the Erie to Pittsburgh Trail: Queen City Trail (1.4 mi), Oil Creek State Park Trail (9.7 mi), McClintock Trail (3.7 mi), Samuel Justus Recreation Trail (5.8 mi), Allegheny River Trail (34.2 mi), and Sandy Creek Trail (12 mi). These trails, located in and adjacent to the Oil Heritage Region, represent more than 66

miles of continuous multi-modal corridor. The results of this study can be found in Erie to Pittsburgh Trail (Between Titusville and Parker, Pa.) 2013 User Survey and Economic Impact Analysis, which states:

- Based on the analysis of data accumulated from infrared counters along the trails and paper surveys from users, 158,507 combined users visit the trails annually.
- Of those visits, 87.1% included the purchase of hard or non-consumable goods, like bikes, kayaks, clothing, etc., with \$337.50 being spent per user, on average (2013 dollars).
- 76.8% of visits included the purchase of soft or consumable goods, like food or drink, with an average of \$21.62 being spent per user (2013 dollars).
- 13.0% of visits included spending on lodging, with an average of \$80.20 being spent per user (2013 dollars).
- The annual visits resulted in a total economic impact of \$7,479,348.
- Of the total economic impact, \$6,928,620 went directly into the local economy.

This study, along with other similar studies, including: Trail Utilization Study: Analysis of the Trail Systems within the Oil Heritage Region 2006; the Heritage Rail Trail County Park 2007 User Survey and Economic Impact Analysis; the Pine Creek Trail 2006 User Survey and Economic Impact Analysis; 2010 Armstrong Trail User Survey and Economic Impact Survey Study; the DCNR 2015 Trail User Economic Impact Comparison; and the 2002 User Survey for the Allegheny Trail Alliance, confirm there are positive economic impacts associated with the development of these trails.

Moreover, greenways can encourage new residents and businesses to settle into an area. Young people and families are attracted to places that provide opportunities for easy access to outdoor recreation. Greenway trails provide such accessibility since they connect population centers to parks and other natural amenities. Furthermore, to cater to the needs of recreational users, new service businesses, such as bike shops, canoe & kayak rentals, outdoor equipment stores, restaurants, campsites, and bed and breakfasts often spring up around recreational greenways. These new businesses bring new jobs and additional tax dollars to the host municipalities. Proximity to nature increases the desirability and value of residential property, a factor that increases the profitability of real estate development and the attractiveness of towns, cities, and regions.

Beyond the direct economic benefits of greenways, other less-tangible, but important fiscal impacts may be attributed to greenways. For example, when looking for places to relocate or expand their businesses, employers look at a variety of factors including amenities for their employees. Telecommuters often want to live in a place with outdoor recreation opportunities, like those available in northwest Pennsylvania.

ECONOMIC BENEFITS OF NATURAL SYSTEMS GREENWAYS

Probably the least understood and least quantified aspect of greenways is the impact of natural resource greenways to the economy. There are tourism dollars generated from residents and visitors to the region that otherwise would not be realized if it weren't for the natural resources that support them. These tourism dollars would be non-existent if the resources which create habitat, create recreation opportunities, and create northwest Pennsylvania's character did not exist.

The natural resources along northwest Pennsylvania's waterways cleanse water, provide for the temporary storage of flood waters, and provide ground water recharge zones. Without these resources in place we would realize a significant cost in building additional infrastructure to replace these functions. Further, the single aspect of temporarily storing floodwaters provides a major financial benefit by controlling property damage that may be caused by flooding. By eliminating these storage areas and increasing impermeable surfaces, the risk of flooding is increased, and an expense is incurred during development to mitigate their negative effects.

TRANSPORTATION BENEFITS

The maintenance and expansion of the greenways and trails network not only promotes recreational use of natural areas, it provides critical non-motorized transportation connections. On-road bicycle facilities, sidewalks, and trails encourage:

- The use of non-polluting transportation alternatives to the automobile for those short trips to work, school, or the local store
- The use of non-consumptive transportation alternatives to expending fossil fuels
- Reduction in congestion
- Improvement of air quality
- Additional alternatives for residents
- Additional cost savings in car and road maintenance
- Enhances the quality of life

According to the U.S. Bureau of Transportation Statistics:

- The average pedestrian's trip for recreation purposes is 1.9 miles
- The average pedestrian's trip for non-recreation purposes is 0.8 miles
- The average bicyclist's trip for recreation purposes is 5.6 miles
- The average bicyclist's trip for non-recreation purposes is 2.2 miles

There are many opportunities to expand choices for alternate modes of transportation, such as developing safe routes to schools, safe routes to parks, and expanding the roadway network to include bicycle facilities. Expansion of the greenways and trails network may also help to improve access to resources, especially recreational facilities, reducing the length of pedestrian and bicyclist trips.

RECREATION BENEFITS

Greenways offer opportunities for recreation, health, and fitness. Many studies have shown that as little as 30 minutes a day of moderate to intense exercise can improve a person's mental and physical health and prevent certain diseases. Studies also support the premise that Americans place a high priority on having trails and open space in their community for recreation purposes.

Greenways and trails:

- Support a wide variety of recreation uses
- Provide for the restoration and interpretation of historic sites
- Provide connectivity between rural areas and the main street centers
- Enhance the quality of life for residents
- Connect Pennsylvania with its neighboring states, Ohio to the west, New York to the north, and Maryland to the south
- Connect residents with the environment and natural resources

HEALTH AND WELLNESS BENEFITS

Trails and greenways create healthy recreation and transportation opportunities by providing people of all ages with attractive, safe, accessible, and low - or no-cost places to cycle, walk, hike, jog, or skate. Trails help people of all ages incorporate exercise into their daily routines by connecting them with places they want or need to go. Communities that encourage physical activity by making use of the linear corridors can see a significant effect on public health and wellness.

The Rails to Trails Conservancy's fact sheet "Health and Wellness Benefits," provides the following facts on how greenways and trails benefit health and wellness:

- In addition to helping control weight, opportunities for physical activity help to prevent heart disease, help control cholesterol levels and diabetes, slow bone loss associated with advancing age, lower the risk of certain cancers, and help reduce anxiety and depression. The power of physical activity to improve mood and prevent disabilities and chronic diseases is especially pronounced for older adults.
- Trails connect people with places, enabling them to walk or cycle to run errands or commute to work. A majority of the daily trips people make are short, providing an opportunity for physical activity that can be built into the daily routine.
- Trails connect neighborhoods and schools so children can cycle or walk to their friend's homes, athletic facilities or to school, especially in communities that lack sidewalks.
- Trails and greenways provide natural, scenic areas that cause people to actually want to be outside and be physically active. The City of Pittsburgh has transformed unsightly urban decay into an inviting and popular greenway and trail with the Three Rivers Heritage Trail System. This trail attracts visitors, businesses, and residents.

ECOLOGICAL BENEFITS

The ecological benefits of greenways are most likely some of the most important benefits provided to humankind. However, they generally are the least understood and valued. These ecological benefits are expensive to replace with artificial means to achieve their functions. Ecological benefits include:

- Preserving vital habitat corridors
- Promoting plant and animal species diversity
- Absorbing contaminants of surface runoff
- Cleansing and replenishing the air
- Buffering the negative effects of development
- Mitigating noise, water, thermal, and air pollution
- Controlling property damage due to flooding

EDUCATIONAL BENEFITS

Greenways and trails provide educational benefits from a variety of perspectives including cultural, historical, and environmental interpretation. Greenways serve to promote the unique history and culture of towns, cities, and villages all across Pennsylvania by providing:

- Access to buildings and sites of historic and architectural significance in a community
- A look back at the events and people that shaped the present
- An opportunity to preserve historic assets and archeological artifacts

Natural areas that are set aside for educational purposes provide immeasurable opportunities for people of all ages to learn and interact with their natural surroundings. Greenways:

- Act as living museums, outdoor classrooms, and laboratories
- Provide scenic excursions along water trails or wildlife preserves
- Assist students, both young and old, in developing concepts and skills by helping them become effective stewards and decision makers concerning natural resources
- Promote and encourage interaction with natural surroundings

PROTECTING PENNSYLVANIA'S RURAL LEGACY

Pennsylvania's rural landscape is an inextricable link to its history, as well as a demonstration of the success that continues to be achieved by its farming community. Studies show that over the last forty years, Pennsylvania has lost much of its agricultural land to urban areas. This rate of loss has a sizeable economic impact, but it also threatens the unique characteristics that encompass Pennsylvania such as its rural legacy. Development without preservation of this rural character significantly impacts the future course of the Commonwealth. Greenways help to preserve the rural character of a community by:

- Protecting ridge lines, river corridors, and scenic resources
- Providing visual relief by framing and distinguishing neighborhoods in the face of sprawl
- Preserving farmland, small country settlements, and surrounding open space
- Maintaining the character of place

CONSERVING CRITICAL HABITATS

Northwest Pennsylvania contains a variety of forests, wetlands, rivers, natural areas, and streams, as well as numerous conservation holdings. All of these features provide habitat for a wide array of plants and animals. Natural Heritage Inventory (NHI) data for each of the eight counties within the region was provided for use in developing this plan. The Pennsylvania Natural Heritage Program identifies natural areas that serve as critical habitat for species of special concern or that host a variety of habitats and landscape features warranting conservation. Additionally, the Pennsylvania Audubon Society has identified at least twenty Important Bird Areas (IBAs), or areas essential to sustaining wild bird populations, in the northwest region.

Greenway implementation strategies developed through this planning process will help to conserve these sensitive resources and promote development that respects these resources.

SOUND LAND USE AND SUSTAINABLE GROWTH

Proper planning is essential for ensuring new residential, commercial, and industrial development is implemented in a manner that respects the region's natural infrastructure, along with the region's cultural, historic, and scenic resources.

An example of responsible land use is the in-fill development of land in existing areas of urban or suburban development. For example, developing land in an existing industrial park, rather than previously undisturbed land, provides easier access to utilities and resources, while preserving an existing area of open space.

It is important to note that a thoughtfully-developed Greenway Plan does not oppose development, but rather identifies ways to integrate it with conservation practices. Thus, economic growth will occur in planned areas and will result in healthier communities: economically, socially, and environmentally.



Photo Credit: Andrea Viazanko

PLANNING PROCESS

EXISTING PLANNING EFFORTS

The first step in any planning process should be a review of the existing work being performed. That is especially true in the case of a plan that covers a large region and addresses a diverse topic like greenways. Below is a review of existing planning efforts from the state level to municipal plans and specialized area studies. This planning update has worked to coordinate the efforts of the Northwest Pennsylvania Greenways plan with the priorities of existing planning efforts, especially those prescribed by the State.

STATEWIDE PLANS

Several state agencies have published plans related to statewide greenways and trails goals. This regional plan focuses on coordinating with these efforts. Ensuring coordination at all levels of implementation helps to ensure success.

[Pennsylvania Greenways: An Action Plan for Creating Connections \(2001\)](#)

This state greenways plan identifies many needs and recommendations that will enable implementation of the statewide greenways plan. The statewide plan identifies the need to map county/ municipal greenways, to build GIS base mapping on a regional scale, and to facilitate regional coordination and cooperation among municipalities as building blocks of a successful statewide greenways network. Other needs identified in detail by the Pennsylvania Greenways Plan include:

- More public education about greenways and their benefits;
- Greater effort to conserve land and protect ecological systems;
- Dedication of funding for long-term support of greenways and coordination of funding programs;
- A lead state agency for greenway initiatives; and
- State agencies' revision of their guidance documents, policies, and practices to work cooperatively.

Using a "bottom up" approach, only greenways recognized at the local or county level will be considered as a part of the statewide network. The goal of the state's greenways program is to identify and encourage linkages between local and regional greenways. Each county is encouraged to use greenways as a land use strategy and show existing and proposed greenways and open space in their plans. The information from each county would then be shared in a statewide geographic information system (GIS), so that regional plans, like this one, are building toward greater statewide objectives.

Another part of Pennsylvania's greenway objective, as established by DCNR, is the development of Major Greenway Corridors. These are regional greenways greater than 50 miles in length, passing through two or more counties, and are each recognized in at least one official planning document. Major greenways are among the top greenway priorities in the state and will serve as the backbone of the statewide greenways network. Each county's greenways plan is required to discuss major greenway corridors. The major greenway corridors that pass through the northwest Pennsylvania greenways planning region are the Allegheny Wild and Scenic River Water Trail, the Clarion River Water Trail, the North Country National Scenic Trail, the Redbank Valley Trail Corridor, and the Erie to Pittsburgh Greenway.

[Pennsylvania Statewide Comprehensive Outdoor Recreation Plan: Recreation for All, 2020- 2024 \(2020\)](#)

Planning for outdoor recreation continues to be a top priority for the DCNR. The Statewide Outdoor Recreation Plan provides a five-year blueprint for state and local governments and other providers on how to best deliver and invest in outdoor recreation. The plan offers recommendations and action steps following five priority areas:

- 1) Health and Wellness: Promoting Healthy Living Through Outdoor Connections
- 2) Recreation for All: Ensuring Equity in Access to Pennsylvania's Outdoors
- 3) Sustainable Systems: Protecting and Adapting Our Resources
- 4) Funding and Economic Development: Elevating Outdoor Recreation
- 5) Technology: Using New Tools to Improve Engagement

Pennsylvania Land and Water Trail Network Strategic Plan, 2020- 2024 (2020)

This document is a companion to the Statewide Recreation Plan and provides an update after 2014 Pennsylvania Trails Plan, outlining new priorities and action steps. The plan's priority areas include:

- 1) Close priority trail gaps in Pennsylvania's statewide land and water trail network with the overall goal of having a trail within 10 minutes of every Pennsylvanian.
- 2) Coordinate state and federal funding and programs to leverage maximum investment in priority trail projects.
- 3) Cultivate a variety of partnerships to build capacity to address local and regional trail needs.
- 4) Provide more opportunities and connections for everyone to regularly use a trail.
- 5) Establish and expand regional trail networks to connect communities and community assets.
- 6) Maintain and improve existing land and water trails and related infrastructure.
- 7) Promote Pennsylvania's trails and their economic, environmental, and health benefits.

Pennsylvania Water Trails Program Strategic Plan, 2017- 2022 (2017)

A joint effort by the Pennsylvania Environmental Council (PEC), DCNR, the Pennsylvania Fish and Boat Commission (FBC), and the National Park Service, this plan was created to promote and maintain the Pennsylvania Water Trails Program's network of creeks and rivers. The program's primary goals are to:

- 1) Develop trails that promote sustainable use of natural resources.
- 2) Increase and improve access to Pennsylvania's water trails.
- 3) Connect water trails to land trails.

The program has eight guiding principles to help achieve these goals:

- 1) Partnerships
- 2) Stewardship
- 3) Volunteerism
- 4) Education
- 5) Conservation
- 6) Community Development
- 7) Diversity
- 8) Wellness and Well-being

In addition to the state level plans, many local and regional plans were reviewed and are listed below:

COUNTY AND MUNICIPAL COMPREHENSIVE PLANS

- Clarion County Comprehensive Plan Update (2022)
- Crawford County Comprehensive Plan 2014 – Cultivating Crawford, Growing a Community (2014)
- Focus Lawrence County (2016)
- Forest County Comprehensive Plan (2013)
- Mercer County Comprehensive Plan (2005)
- Oil Creek Region Amended Comprehensive Plan (2006)
- Sugarcreek Three Year Plan (2011)
- The Northern Venango County Comprehensive Plan (2011)
- Township of Cranberry Three-Year Plan (2015)
- US ACE Woodcock Lake Master Plan (2019)
- Venango County 2004 Comprehensive Development Plan (2004)
- City of Warren Comprehensive Plan (1998)
- Warren County Comprehensive Plan Update (2005)
- East Mead Township Comprehensive Plan (2014)
- Wayne Township Comprehensive Plan (2015)
- East Fairfield Township Comprehensive Plan– Forging East Fairfield’s Future (2018)
- Conneaut Valley Multi-municipal Plan (2022)
- Cambridge Springs Borough Placemaking Plan (2021)

COUNTY AND MUNICIPAL GREENWAYS AND RECREATION PLANS

- McKean Conservation Area Master Plan (2016)
- Lawrence County Greenways Plan Update (2017)
- Clarion County Greenways Plan (2010)
- Warren County Parks, Recreation & Greenways Plan (2021)
- Lawrence County Multimodal Corridor Study (2018)
- Northwest Pennsylvania Greenways Plan (2009)
- Venango County Comprehensive Recreation, Parks, & Open Space Plan (2010)
- Erie County Parks, Trails, and Recreation Plan (2020)
- Titusville Comprehensive Recreation, Park, and Open Space Plan – Crawford County (2013)
- City of Titusville Fleming Park Improvement Plan (2015)
- Meadville City Multi-municipal Comp. Rec. Park, Open Space & Master Site Plan (2016)

SPECIAL AREA PLANS AND STUDIES

- Warren County Redevelopment Task Force Report (2018)
- Pennsylvania Greenways: An Action Plan for Creating Connections (2001)
- Crawford County Woodcock Peer to Peer Study (2012)
- Titusville Trail Town Master Plan (2013)
- Oil Creek Water Trail Feasibility Study (2015)
- French Creek Trail Corridor Plan (2022)
- French Creek Watershed Conservation Plan (2002)
- New Bethlehem Borough Trail Town Plan (2011)
- Redbank Valley Trails Feasibility Study (2011)
- North Warren Trail Feasibility Study (2002)
- Union City Borough Active Transportation Plan (2021)
- Conneaut Lake Watershed Implementation Plan (2020)
- Brokenstraw Creek Watershed Conservation Plan (2011)
- Corry Active Transportation Plan (2020)
- Corry Community Strategic Plan (2021)
- East Branch Trail Feasibility Study (2013)
- PA Route 6 Bicycle Master Plan (2016)
- Erie to Pittsburgh Trail (between Titusville and Parker, PA) 2013 User Survey and Economic Impact Analysis (2013)

ADJACENT AREA PLANS AND STUDIES

In addition to reviewing plans within the eight-county planning area, a selection of materials from organizations that represent the surrounding and overlapping areas were reviewed to best understand the greater context in which the greenways network exists and to ensure consistency with proposed projects.

- Industrial Heartland Trails Coalition
- North Central Greenways and Active Transportation Plan
- PA Wilds
- Rails to Trails Conservancy
- Erie to Pittsburgh Trail
- WeConservePA

HOW A GREENWAYS PLAN IS DEVELOPED

Despite being an update to the 2009 Greenways Plan, the creation of this document followed a complete planning process to ensure regional support for the expansion of the greenways network and to document progress since the previous plan was adopted. This process first involved data collection and analysis in order to understand the current conditions and efforts already taking place in the region. The results of these efforts are documented in the preceding sections. Following data collection and analysis, an extensive public participation process was completed, which was then used to help inform the implementation strategies and proposed projects, documented in the following sections.

PUBLIC PARTICIPATION

Greenways planning also involves an extensive public participation process that solicits knowledge and expertise from regional residents and officials. Building on the public input gathered during the original plan development, additional engagement included:

- Steering Committee Meetings
 - Kickoff with Northwest Commission and Steering Committee (April 2022)
 - Steering Committee Update Meeting (July 2022)
 - Steering Committee Update Meeting (September 2022)
 - Steering Committee Update Meeting (November 2022)
- Virtual Public Workshop held via Zoom (August 2022)
- Attendance at two public events
 - Oil Heritage Festival (July 2022)
 - Clarion Autumn Leaf Festival (September 2022)
- Four Round Table Discussions
 - Trail Groups (November 2022)
 - Chambers of Commerce & Tourism Organizations (November 2022)
 - Conservation Groups (November 2022)
 - Local Business Owners (November 2022)
- Two Focus Group Discussions (November 2022)



Figure 2. Northwest Commission and HRG attending the Oil Heritage Festival.

Figure 3. Screenshot of Online Survey

A survey was also active online from July to November. The survey asked participants about their current greenways and trail use and spending associated with outdoor recreation in the northwest Pennsylvania region. Three hundred and ten participants answered the survey. Additional statistics from the survey responses can be found on the hub site.

In addition to the online survey, two online mapping tools were used to gather public input. One tool asked users to provide data about their existing trail use. The other tool allowed users to provide input on improvements they would like to see. These improvements could have been in the form of specific extensions to the existing greenways and trails network, improved facilities along existing trails and

greenways, additional facilities adjacent to existing greenways and trails, and other improvements that may not fall in these prescribed categories. The complete data sets can be seen in the maps included in the Public Participation section of the data site.

Through the Round Table and Focus Group discussions, input was gathered from many groups. From this input, the following general themes emerged:

- Need to prioritize filling network/trail gaps and connections.
- Land ownership/acquisition issues/expense
- Signage issues- expensive, but critical for safety
- Projects to improve access to what already exists
- Trail Town vs. Outdoor Town
- Need for education & engagement
- Need for educational resources
- Need for marketing & tourism promotion
- Increase support/promotion of local events
- Enhance regional coordination/communication efforts
- Data sharing

Additional details about the public participation process and outcomes can be found under the “Public Participation” tab on the data site.

GOALS AND OBJECTIVES

Preserving and enhancing northwest Pennsylvania's character and quality of life is the main goal of the Greenways Plan, and these specific objectives support this main goal:

- Protect existing natural areas primarily for ecological health and preservation of wildlife habitat;
- Promote the preservation of agricultural land;
- Provide recreational opportunities for residents through preservation and connection of existing open spaces;
- Promote economic growth via recreational or eco-tourism;
- Encourage counties and local municipalities to work in unison to help protect their various resources by adopting open-space and land-use regulations; and
- Educate residents on the aspects and benefits of Greenways Planning, including the benefits of implementation of the goals listed above.

These goals and objectives support the two general functions that define proposed greenways in northwest Pennsylvania:

- 1) Natural Systems Greenways are corridors whose primary function is preservation of unique Natural Infrastructure, including: habitats such, as wetlands, steep slopes, and floodplains; exceptional value water-quality streams; high-value natural areas identified by the County Natural Heritage Inventory; Interior Forests; Important Bird Areas; and Important Mammal Areas. They are linear tracts of essentially undeveloped open space. Some low-impact activity, like hiking or wildlife observation, is acceptable in these corridors, but intense development and motorized vehicle use are not recommended.
- 2) Recreation and Transportation Greenways are corridors in which trail development is recommended or trails already exist. These greenways connect population centers and points of interest. They bring people in contact with the outdoors and engender an appreciation of the natural world. These trails also provide alternative, environmentally-friendly transportation opportunities for commuters and visitors. In some cases, recreation and transportation trails overlay areas where conservation of natural assets is also an objective. To avoid conflicts, recreation and transportation uses should be planned to minimize impacts. For example, a biking trail along a river or stream corridor should be designed to preserve steep slopes, wetlands, and other sensitive areas.

IMPLEMENTATION

The implementation of natural systems greenways will rely on a proactive approach from the public and private sectors. From the public side, the implementation of natural systems greenway corridors should begin with the Northwest Commission who must educate, advocate, encourage, and implement the recommendations outlined by this plan. This should occur through partnerships with other public and private entities.

IMPLEMENTATION STRATEGIES

Traditionally, the region, its counties, and the local municipalities have relied heavily on state and federal funding to implement greenway and trails projects. Although state funding has been available, it should not be relied upon as the sole source of funding. State funding should be used as seed money to start implementation; build success; and create momentum to encourage additional implementation.

Therefore, the Northwest Commission must position the region to be able to access other sources of funding that may be available. Further, the Commission should educate and advocate for each county to participate financially as they implement the strategies. After all, it will be the local municipalities and the counties that will capitalize on the results of the plan's implementation through increased economic development activity. This will lessen demand for man-made infrastructure, assuming natural infrastructure elements are conserved.

Finally, through this study, it became evident that the concept of Greenways is still not understood by many in the region. Therefore, it is recommended that the Northwest Pennsylvania Commission and its partners continue to focus on educating the region's residents, its local municipal officials, and county officials on the value of greenways and how they can be utilized to achieve the vision that most counties have already established in their prior comprehensive planning efforts.

IMPLEMENTATION TOOLS

Many tools are available to assist in the conservation of natural resources. Those tools are identified here, and a brief description of each tool is provided. Being listed here does not imply that the tool(s) must be used. Rather, they are listed to provide a comprehensive list of tools that can be considered to assist in implementing the recommendations contained in this study.

ACQUISITION TOOLS

These tools generally provide permanent protection of land and are preferred when establishing greenways.

Fee Simple Purchase

- **Description:** The direct purchase of land, at a price agreeable to the landowner, is done by a governmental or public agency or non-profit land trust or other organization. Land acquisition can be made at every level of government.
- **Benefits:** Acquiring fee simple title provides more permanent protection than other methods, such as zoning or subdivision requirements. Acquisition by non-profit groups partnering with communities imposes little or no cost and little administrative burden on local governments.
- **Implementation:** DCNR and DEP's Growing Greener Program has sources of funding to help communities and non-profit groups implement acquisition of land for inclusion in greenways.

Option/ First Right of Refusal

- Description: A municipality or private entity enters into an agreement with a landowner that, should the landowner decide to sell, gives the government or private entity the right to bid on the land before anyone else.
- Benefits: This technique gives the municipality or private entity time to assemble funds needed to purchase the property or to reach an agreement with the landowner through other means.
- Implementation: The option is negotiated and memorialized in a legal agreement. If the property is sold, the municipality or private entity may, but is not obligated to, submit a bid to the landowner.

Conservation Easements

- Description: A landowner voluntarily agrees to sell the right to develop his land in certain ways by granting an easement to another entity such as a land trust. The landowner retains title to the land and continues to pay taxes on it. The easement may or may not allow the grantee access to the land for certain purposes.
- Benefits: Establishment of conservation easements provides long-term protection, but is less costly than fee simple acquisition because the buyer receives less than full title to the land. Where the easement is held by a non-profit group, cost and burden on local government are minimized. Moreover, the landowners pay reduced real estate taxes, subject to terms of the conservation easement.
- Implementation: Generally, the buyer pays the landowner the difference between the value of the land that can be fully developed and the value of the land without development potential. The easement is recorded with the property deed and remains if the land is sold.
- Through both state-wide and local chapter efforts, Audubon Pennsylvania (AP) promotes conservation through a variety of education programs. Among these programs are workshops aimed at promoting the establishment of conservation easements.
- Although AP does not hold conservation easements, it promotes establishment of easements through other qualified land trust organizations (local examples are described later in this section). AP's efforts are important to the region because of the presence of several Important Bird Areas (IBA) in the region. IBAs contain areas of essential and sometimes vulnerable bird habitat.

Agricultural Conservation Easements

- Description: A subset of conservation easements described above, these easements protect farms from development. Landowners voluntarily sell the rights to develop the farm to a government entity or land trust. The agency or organization usually pays them the difference between the value of the land for agricultural use and the value of the land for its "highest and best" use, which is generally residential or commercial development.
- Benefits: Conservation easements preserve land for agricultural use. They provide a financial benefit to farmers while conserving farmland that often provides wildlife habitat. Also, owners of land subject to conservation easements pay reduced real estate taxes.
- Implementation: County Agricultural Land Preservation Boards have primary responsibility for developing application procedures. They also establish priority for easement purchases based on a numerical ranking system. The ranking system is modeled on Pennsylvania Dept. of Agriculture (PDA) regulations that require consideration of soil quality, conservation practices, development pressure, and proximity to other preserved farmland and open space.

Forest Land Conservation Easements

- **Description:** These easements are a market driven tool used to preserve working forests, in the same way agricultural conservation easements protect working farmland.
- **Benefits:** Easements can be used to protect forests for present and future economic benefit, simultaneously preserving wildlife habitat; protecting watersheds; providing outdoor recreation opportunities; and promoting soil conservation. In addition, benefits to landowners include reduced property taxes. These easements are of great importance to the Commonwealth of Pennsylvania, as timber is one of the top sectors of the state's economy.
- **Implementation:** Some non-profits, such as conservancies and land trusts provide financial support for purchasing easements from landowners, or may accept them as tax-deductible donations.
- The U.S. Forest Service's Forest Legacy Plan (FLP) aids in the identification and protection of environmentally-important forest lands threatened by conversion to non-forest uses. The FLP provides funding to state governments to help purchase easements on private forestland. Eligible forest lands must be located in a designated Forest Legacy Area and must meet other specific eligibility requirements. The DCNR Bureau of Forestry, in cooperation with the State Forest Stewardship Committee (SFSC) is responsible for implementation of this program in Pennsylvania. For more information, visit www.dcnr.state.pa.us/forestry.

Trail Easement

- **Description:** A trail easement allows a property owner to give the rights to create, maintain, and use a trail on their property without giving up ownership of their land through which the trail passes. The landowners (the "owners") may donate or sell access to their land to a trail group, land trust, municipality, authority, or other charitable or governmental entity (the "holder of the easement").
- **Benefits:** By donating or selling a trail easement to the holder, the owner may make their land available for a public purposes without having to subdivide or lose ownership of the land.
- **Implementation:** The creation of a trail easement mainly requires the owners and the holder to come to an agreement that is incorporated into an easement document prepared or reviewed by an attorney. After being signed by both the owners and the holder, the easement document is recorded in the county recorder of deeds office to ensure that future owners are informed of the easement. The easement remains in force even if the land subject to the easement changes hands.
- WeConservePA has developed model trail easement documents that may be used as guide in this process (<https://weconservepa.org/blog/weconservepa-updates-model-trail-easements/>). WeConservePA has other model documentation that may be a valuable resource as well.

Transfer / Purchase of Development Rights

- **Description:** Transfer of Development Rights (TDR) is a tool that allows conservation and development to co-exist within a municipality or group of municipalities with joint zoning. TDR permits landowners in conservation target areas to transfer some or all of the development rights to their land (sending areas) to areas where growth is desired at higher densities than zoning allows (receiving areas). The landowners keep title to the land and the right to use it, but give up the right to develop it for other purposes. The buyer of development rights uses them to develop another parcel at greater density than would otherwise be permitted. With TDR, transfer of rights occurs at the time of development.
- **Purchase of Development Rights (PDR)** operates in a similar manner. However, with PDR, an entity buys the rights to develop land from the landowner. The landowner retains title and use of the land and receives tax benefits. A municipality can pass a bond issue to buy the rights and "bank" them. A

developer may then purchase the development rights from the municipality when ready to develop an area with high density. The municipal bond financing is paid off over time by the purchase of development rights as development occurs.

- **Benefits:** The value of each development right is controlled by the open market, not the municipality. TDR is an equitable option for preserving open space and agricultural land, compensating the owner of the preserved land while guiding the growth of development by allowing increased density where existing infrastructure can support it.
- **PDR** provides an immediate return to the landowner, as he/she is compensated for the reduction in development potential of their land. At the same time, PDR supports the development district concept. PDR also streamlines the development process, since private sales and negotiations for development rights are eliminated. It allows a municipality to guide growth to desired areas.
- **Implementation:** In Pennsylvania, TDR can only be used to transfer development rights within a single municipality or among municipalities with a joint zoning ordinance. It is up to each municipality implementing TDR to set up a mechanism to accomplish the transfer.

REGULATORY TOOLS

Regulatory techniques can also be used to establish greenways. However, because they can always be amended or even abolished by local officials, they cannot be relied on for permanent protection of land. Nevertheless, they should not be overlooked when discussing long-term strategies for assembling a greenways network.

Open Space Zoning

- **Description:** This preserves a large amount of land for conservation uses while still allowing full-density development. In contrast to cluster zoning, where the emphasis is more often placed on providing active recreation areas, open space zoning is more suited for protecting farmland; forests; historic sites; or scenic views. Subdivisions are required to dedicate a significant portion of their unconstrained land to permanent open space uses. The open space is typically owned and managed (according to an approved management plan) by a homeowners' association. Other possible owners include land trusts or the municipality.
- **Benefits:** While a regulatory tool, open space zoning provides a means of permanent protection of undeveloped land while allowing full-density development. Ideally, the open space in each new subdivision will be planned to abut one another, forming an interconnected system of conservation land.
- **Implementation:** This technique is implemented through a municipal zoning ordinance. The number of dwellings permitted is based on the net acreage of buildable land and the allowable density in the property's zoning district. Easements are then placed in the open space to ensure that it will not be further subdivided or developed.

Growing Greener: Conservation by Design

Growing Greener: Conservation by Design is a collaborative program between the Natural Lands Trust, a non-profit conservancy located in Media, PA; the Pennsylvania Department of Conservation and Natural Resources; the Governor's Center for Local Government Services; DCED; and an advisory committee comprised of officials from state, local, and non-profit agencies and the private sector. The Governor's 1999 state-wide funding initiative shares the same Growing Greener name, but is a separate program funding natural resource protection and land preservation efforts across the Commonwealth.

In order to implement conservation, subdivision design, zoning, and subdivision ordinances are revised to focus not only on the development related issues (such as lot dimensions, street geometry, stormwater

management, etc.) but to place equal emphasis on conserving a variety of environmental, cultural, historic, and scenic features. It is precisely those features that typically give a community its special character and are often destroyed by conventional development practices.

When local land use regulations require developers to design around special natural and cultural features, developers can become the municipality's greatest conservationists, at no cost to the community. To achieve this, several revisions must usually be made to the subdivision and zoning ordinances.

Subdivision ordinances must contain, at a minimum:

- Procedures that strongly encourage dialogue between the applicant and the municipality before detailed plans are engineered
- Standards for configuration and location of conservation lands
- A requirement for a map, showing all natural and man-made features around the site
- A requirement that a detailed site inventory for existing features, upon which to base decisions regarding the area, to be protected.
- Required site visit by planning commission staff members accompanied by the developer, with the site inventory in hand
- A four-step design process in which conservation areas are determined first, before houses, streets, and lot lines are established

Revisions to the zoning ordinance create a menu of options for developers to choose from, relating to density to the provision of open space. The options offer density increases when greater open space is proposed and reduced density when less open space is proposed. In addition, the zoning ordinance needs to be made flexible to accommodate development in patterns that preserve natural resources.

Zoning ordinances must contain, at a minimum:

- The ability for the applicant to obtain full density, through a "by-right" (versus conditional use) approval process, but only when the conservation option is selected
- A requirement that protected lands in conservation subdivisions are comprised of at least 50% of the buildable ground, whenever the underlying density is one unit per acre or lower
- Strong disincentives to discourage "conventional" development, usually reducing the density by half
- Restrictive covenants that ensure conservation lands are perpetually restricted from development
- Open space location design standards

Successful communities employ a wide array of conservation planning techniques simultaneously over an extended period of time. Complementary tools, which a community should consider adding to its "toolbox" of techniques, include the purchase of development rights; donations of sales to conservancies; the transfer of development rights; and "land owner compacts" involving density shifts between contiguous parcels. Other techniques can be effective, but their potential for influencing the big picture is limited. The Growing Greener: Conservation by Design approach offers the greatest potential because it:

- Does not require public expenditure,
- Does not depend on land owner charity,
- Does not involve complicated regulations for shifting rights to other parcels, and
- Does not depend on the cooperation of two or more adjoining landowners to make it work.

Additional informational material describing *Growing Greener: Conservation by Design* concepts is available from the Natural Lands Trust, Hildacy Farm, 1031 Palmers Mill Road, Media, PA 19063, 610- 353-5587, www.natlands.org.

Overlay Zoning Districts

- Description: An overlay zoning district applies additional regulations to an underlying zoning district or districts. The restrictions of the overlay district supplement and supersede (where there is a conflict) the provisions of the underlying district. Overlay districts have been used to conserve floodplains and other sensitive natural features.
- Benefits: Overlay zoning allows regulations to be tailored to specific conditions. Administration is similar to any other zoning district.
- Implementation: Provisions of a zoning district must apply uniformly to each class of uses or structures within the district. However, Section 605 (2) of the Municipal Planning Code authorizes additional classifications, potentially through overlay zoning, for "regulating, restricting, or prohibiting uses and structures at, along, or near..."
 - Natural and artificial bodies of water.....
 - Places of relatively steep slope or grade, or areas of hazardous geological or topographic features.....
 - Places having unique historical, architectural, or patriotic interest or value.
 - Floodplain areas,...sanitary landfills, and other places having a special character or use affecting and affected by their surroundings."

Buffer Zones

- Description: Municipalities enact regulations requiring buffers of a prescribed width between incompatible uses, such as residential and commercial areas, or adjacent to sensitive resources, such as streams or drinking water supplies. This tool allows the municipality to limit or prohibit development within the buffer area.
- Benefits: Buffers can be used to protect large, linear corridors of valuable resources like stream and river banks, which are often included in greenways. They allow municipalities to protect areas of sensitive land without having to shoulder the expense of acquisition.
- Implementation: Requirements for buffers are enacted as part of a zoning ordinance or subdivision and land development ordinance. Buffer restrictions should be wide enough to protect the resource or shelter the less intensive use. However, care must be taken not to create buffers that are so wide that they will disproportionately reduce the value of land in the municipality. An amazingly successful example of a buffer zone is Falling Spring Greenway in Guilford Township, Franklin County. Successful implementation of a buffer zone around the Falling Spring Branch, a popular fishery, coupled with several stream restoration projects, saved a threatened natural resource. This ordinance, as well as an illustrated article detailing its success, are available in the appendices of this report.

Agricultural Protection Zoning

- Description: This zoning designates areas where farming is the primary land use and discourages other land uses in those areas.
- Benefits: Agricultural Protection Zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development. This reduces the likelihood of conflicts between

farmers and non-farming neighbors. Maintaining unbroken masses of farmland ensures continued support for local agricultural service businesses.

- Implementation: Agricultural Protection Zoning is economically viable when coupled with tools such as Transfer of Development Rights or Purchase of Development Rights.

Mandatory Dedication Ordinance

- Description: Township officials require developers to dedicate a portion of the undeveloped land on a development parcel for open space preservation purposes. The amount of open space dedication is often reflective of the type, amount, and intensity of development to occur on the site.
- Fees in-lieu-of dedication are required of the owner or developer as a substitute for dedication of land. Fees are usually calculated in dollars per lot, and referred to as "in-lieu fees." The municipality then uses these funds to purchase new park or conservation land.
- Benefits: Mandatory dedication ensures that open space will be preserved as a municipality develops. With careful planning by municipal officials, these areas of open space can be aligned to create greenway corridors. However, many municipalities prefer payment of in-lieu fees because they allow the municipality to combine funds from several developments and purchase large tracts of recreation or conservation land.
- It is important to note that mandatory dedication ordinances can include specific clauses requiring the dedication of land that includes environmentally-sensitive features such as wetlands, floodplains, etc. Ordinances can also require negotiation with municipal officials so that other lands desired by the municipality can be identified for dedication.
- Implementation: Provisions requiring mandatory dedication or in-lieu fees can be added to municipal zoning ordinances by amendment. The Municipal Planning Code requires that "the land to be dedicated or the fees to be paid shall bear a reasonable relationship to the use of the park or recreational facilities [developed on that land] by future inhabitants of the development....". The municipality is also required to expend any fees collected within three years of payment by the owner/ developer.

The Official Map

- Description: A municipality creates an "official map" that designates public or private land that has been identified as a current or future public need. This can be land for roads or other infrastructure, as well as open space for conservation or recreation.
- Benefits: The Official Map is a very powerful tool for municipalities planning for conservation and recreation. It gives municipalities time to assemble funds to purchase identified lands through First Right of Refusal (described earlier in this section). Of importance is the fact that a municipality is not required to enact ordinances to create and adopt an Official Map.
- Implementation: The Official Map does NOT result in taking of land, but simply gives the municipality right of first refusal to purchase the land or obtain an easement. The municipality has one year to make an offer to the landowner, should the property be made available for sale. After one year, the landowner can sell the property to any other interested buyer.
- Municipalities wanting to establish a desired feature should only do so after they have identified lands needed for conservation or recreation through a comprehensive planning process. Such lands must be identified on a parcel-by-parcel basis, with greater detail than is given in this greenways plan. If lands are to be reserved on an official map, the municipality should have a reasonable prospect of obtaining the funds necessary to purchase the property of interest.

- The Official Map is a tool of great importance because a municipality can implement an official map with or without a zoning ordinance.

OTHER RECOMMENDATIONS

The action plan also includes several other conservation, recreation, and transportation based recommendations essential to maintaining the quality of life that defines the region. The following mechanisms are methods of land conservation or resource protection that do not involve acquisition of land or enactment of ordinances by a municipality, but are no less effective.

Agricultural Security Areas

- Description: A landowner or group of landowners whose parcels together comprise at least 250 acres may apply to their local government for designation as an Agricultural Security Area.
- Although ASAs do not offer conservation-based protection, they help ensure continuation of agricultural practices, which are a large part of the quality of life in northwest Pennsylvania. This plan recommends that the County continue to accept applications for agricultural security areas and couple that effort with a strong conservation-based education program, showing farmers in ASAs the benefits of agricultural best management practices and natural resource conservation.

Agricultural Tax Incentives

- Description: Differential assessment laws direct local governments to assess agricultural land at its value for agriculture, rather than its full market value, which is usually higher. Differential assessment laws are enacted at the state level, but implemented locally.
- Benefits: The programs allow farmers to continue operating an agricultural operation in the face of development, helping to ensure the economic viability of agriculture. These tax laws align agricultural property taxes with what it actually costs local governments to provide services.
- Implementation: Landowners must apply to the County Assessment Office.

Clean and Green Program

- Description: Pennsylvania ACT 319 (also known as Clean and Green) provides real estate tax benefit to owners of agricultural or forest land by taxing that land on the basis of its "use value", rather than its true market value. This act provides preferential assessment to any individuals who agree to maintain their land solely devoted to one of the three following uses:
 - Agricultural Use: Land used for producing an agricultural commodity or devoted to (and qualifying for) payments or other compensation under a soil conservation program, under an agreement with a federal government agency.
 - Agricultural Reserve: A non-commercial open space used for outdoor recreation or enjoyment of scenic or natural beauty, offering public use without fee or charge. Agricultural reserve land is the only use under the Clean and Green program that requires landowners to permit nondiscriminatory public access. This use is generally requested by landowners that wish to maintain their land in a natural state – free of farming, timbering, or any other activities.
 - Forest Reserve: A 10+ acre parcel of land stocked by forest trees that are capable of producing timber or other wood products. Forest reserve lands include any farmstead land on the same property parcel as the timber trees.
- Benefits: Clean and Green reduces property taxes for owners of farm, timber, or conservation land.

- **Implementation:** Landowners applying for this program must have 10 or more acres of active agricultural or forest land, unless they gross at least \$2,000 annual income from the land.

Partnership with a Land Trust Organization

- **Description:** The regular acquisition of property rights (using several of the conservation tools mentioned previously in this section) for conservation defines an organization as a land trust. Land trusts are non-profit organizations focused on working cooperatively with landowners and organizing land acquisition projects that benefit both landowner and community. Nearly 100 land trusts operate in Pennsylvania.
- Land trusts can be private charitable organizations, or in some cases governmental agencies, that vary greatly in size and conservation priorities. They may be staffed entirely by volunteers, concentrating efforts in a small area or municipality, or may be large, regional entities staffed by many professionals (i.e. the Western Pennsylvania Conservancy). Among the various possible focuses of land trusts are:
 - Operating public recreation areas or nature preserves;
 - Owning no property, but holding conservation easements for the protection of natural resources;
 - Acquiring land that is to be turned over to governments for public parks or other recreation, such as State Game Lands;
 - Focusing on protection of water resources, such as lakes, rivers, and streams;
 - Preserving scenic views, wildlife habitat, or open space for public recreation;
 - Promoting the preservation of productive farmland, forested areas, or hunting grounds; or
 - Promoting smart land-use planning, environmental education, or trail development for transportation.
- **Benefits:** Conservation of open space in Pennsylvania is essential not only to the environment, but to the State's economy. Agriculture, timber production, eco-tourism, hunting, fishing, wildlife observation, and other outdoor recreation are all dependent on preservation and management of Pennsylvania's natural resources, upon which the State's economic success depends.
- Because they are devoted to working directly with landowners, land trusts can dispel any fears about government "taking" of land. Their efforts can comply with community conservation interests, while spelling out benefits to the landowner, thus creating a "win-win" situation.
- In addition, land trusts may have considerably more success than municipalities in attracting funding for acquisition projects. They sometimes qualify for Federal, State, and local government funds available for conservation projects. Pennsylvania DCMR supports land trust acquisitions with Keystone Fund and Environmental Stewardship Fund (Growing Greener) grants, which support 50% of the costs of priority acquisitions. Land acquisition projects were a main focus of the Growing Greener grant funding in 2006.
- **Implementation:** Many of Pennsylvania's land conservation organizations utilize WeConservePA, whose mission is to help people care for, wisely use, and enjoy what nature offers. They help organizations and individuals to effectively and efficiently conserve land, protect and restore waterways, implement sustainable practices, and connect people to the outdoors. They foster understanding of conservation and advocate for pro-conservation policy to promote a high quality of life for all. For more information, visit <https://weconservepa.org>.

Continue to Promote Agricultural Best Management Practices

It is recommended that County Conservation Districts continue their work with farmers to promote and implement best management practices, thus protecting water quality in the County's streams. Agricultural runoff may cause siltation and may alter nutrient content of streams, adversely affecting aquatic ecosystems. Best management practices, such as stabilized cattle stream crossings, streambank fencing to limit livestock access to streams, and planting vegetative stream buffers may help to prevent excessive runoff from agricultural fields.

Many of the region's conservation districts offer landowner education on agricultural best management practices and have helped landowners implement such practices throughout the Counties. The Pennsylvania Conservation Reserve Enhancement Program (CREP) rewards agricultural producers and landowners for agreeing to install conservation practices on their land. More information is available at www.creppa.org and through the respective County Conservation District.

Caution must also be taken to preserve farm-related infrastructure, such as farm supply stores, etc. A regional example of preservation without proper planning is Montgomery County, Maryland. Agricultural preservation areas were concentrated in only one area of the county and other areas were left open to development. Once land was developed in other portions of the county, farm-related infrastructure supply businesses moved out of the county towards larger customer bases. The farms that remained protected in the county then experienced financial hardship due to lack of nearby support businesses like supply stores, machinery dealers, etc.

Pennsylvania Game Commission Cooperative Programs

Hunting is a part of life in northwest Pennsylvania. This is apparent during any drive through the region's countryside, and in the region's abundance of State Game Lands. It is recommended that the landowners in rural areas be encouraged to make land available for public hunting via the *Cooperative Farm-Game Program* and *Cooperative Safety Zone Program*, administered by the Pennsylvania Game Commission (PAGC).

These programs benefit both sportsmen and farmers. They provide more accessible hunting grounds, support the implementation of sound land use practices associated with game species habitat, and foster a mutual respect between hunters and landowners. Landowners may also receive the following:

- Increased law enforcement patrol during regular hunting seasons;
- Food and cover seedlings attractive to game species;
- Special preference in the commission's pheasant stocking program;
- Informational and warning signage for property borders and for safety zones, which are located within 150 yards of occupied dwellings or other buildings;
- Free advice on soil conservation and other farm-related land use practices; and
- Cutting of tree roots and limbs from crop field borders to increase sunlight on crops and provide cover for small game species and other wildlife.

Cooperating property owners enrolled in the Safety Zone Program execute an agreement with the PAGC that may be terminated at any time with 60-days advanced written notice. Landowners in the Farm-Game Program execute an agreement giving the Commission hunting rights to the property for a minimum of 5 years. Further information is available from PAGC field officers, any of the 6 regional PAGC offices, through the Bureau of Land Management at the PAGC Harrisburg headquarters, or through the PAGC website: www.pgc.state.pa.us.

Land Trust Organizations

There are many land trust and conservation organizations whose geographical area includes portions of the northwest Pennsylvania region. The Northwest Pennsylvania Commission and its participating counties must continue a dialogue with each organization identified herein to determine how they can partner with one another to advance the recommendations and implementation strategies contained within this plan.

Conservation Organizations in the Northwest Pennsylvania Region

ORGANIZATION	CLARION	CRAWFORD	ERIE	FOREST	LAWRENCE	MERCER	VENANGO	WARREN
Allegheny Valley Conservancy P.O. Box 96, Franklin, PA 16323 814-432-2187 https://www.avc-pa.org/contact.php							X	X
Allegheny Valley Trails Association Box 264, Franklin, PA 16323 814-432-4476, x121 avta@ficda.org https://www.avta-trails.org/							X	
Armstrong Conservancy, Inc. PO Box 777, Kittanning, PA 16201 724-822-7176	X							
Armstrong Conservation District 120 South Grant Ave., Kittanning, PA 16201 724-548-3425 conservation@co.armstrong.pa.us https://www.armstrongcd.org/	X							
Clarion County Conservation District 249 South 2 nd Ave, Clarion, PA 16214 814-297-8014 https://www.clarionconservation.com/	X							
Clarion County Forest Stewardship Council 158 South 2 nd Ave, Clarion, PA 16214 814-354-6206 homay@pa.gov	X							
Conewango Creek Watershed Association 4000 Conewango Avenue, Warren, PA 16365 814-726-1441 https://www.conewangocreek.org/								X

ORGANIZATION	CLARION	CRAWFORD	ERIE	FOREST	LAWRENCE	MERCER	VENANGO	WARREN
Crawford County Conservation District 21742 German Road, Meadville, PA 16335 814-763-5269 https://www.crawfordconservation.com/		X						
Erie County Conservation District 1927 Wager Road, Erie, PA 16509 814-825-6403 https://www.erieconservation.com/			X					
Forest County Conservation District and Planning Dept. 526 Elm Street, Box 4, Tionesta, PA 16353 814-755-3450 dzofcin@co.forest.pa.us http://www.co.forest.pa.us				X				
French Creek Valley Conservancy 411 Chestnut St, P.O. Box 34, Meadville, PA 16335 814-337-4321 https://www.frenchcreekconservancy.org/		X	X			X	X	
Lake Erie Region Conservancy P.O Box 11046, Erie, PA 16514 814-490-3248 LakeErieRegionConservancy@gmail.com https://www.lakeerieregionconservancy.org/			X					
Lawrence County Conservation District 430 Court St., New Castle, PA 16101 724-652-4512 https://www.lawrencecd.org/					X			
Mercer County Conservation District 24 Avalon Court, Suite 300, Mercer, PA 16137 724-662-2242 jmedberry@mercercountypa.gov https://www.mercercountycd.com						X		
North Fork Conservancy Waterplant Rd., Brookville, PA 15825 814-849-5260 prkwrk@penn.com https://northforkwatershed.tripod.com/id8.html	X							

ORGANIZATION	CLARION	CRAWFORD	ERIE	FOREST	LAWRENCE	MERCER	VENANGO	WARREN
PA Environmental Council (PEC) West Region 810 River Ave, Suite 201, Pittsburgh, PA 15212 412-481-9400 https://pecpa.org/	X	X	X	X	X	X	X	X
Penn Soil Resource Conservation and Development Council 4000 Conewango Avenue, Warren, PA 16365 814-726-1441 pennsoilrccd@wcconservation.net https://www.pennsoil.org/	X	X	X	X	X	X	X	X
Seneca Highlands Conservancy 800 Minard Run Road, Bradford, PA 16701 607-257-6533 john@youngbros.com http://www.senecahighlandsconservancy.org/		X						
Venango Conservation District 1793 Cherrytree Rd, Franklin, PA 16323 814-676-2832 https://www.venangocd.org/							X	
Warren County Conservation District 4000 Conewango Ave, Warren, PA 16365 814-726-1441 https://wcconservation.net/								X
Western Pennsylvania Conservancy 800 Waterfront Drive, Pittsburgh, PA 15222 412-586-2326 info@paconserve.org www.wpconline.org	X	X	X	X	X	X	X	X

POTENTIAL IMPLEMENTATION PARTNERS

Potential partner organizations were identified through this planning process. They include:

- Adagio Health - Venango County
- Allegheny College
- Allegheny National Forest Vacation Bureau
- Allegheny Outdoor Club
- Allegheny River Trail in Clarion County
- Allegheny Valley Conservancy
- Allegheny Valley Trails Association
- Armstrong Conservancy, Inc.
- Armstrong Trails
- Asbury Woods
- Bartramian Audubon Society
- Brokenstraw Creek and Conewango Creek Watershed Associations
- Brookville Hospital and Health Community Members
- Center for Economic and Environmental Development based at Allegheny College
- Clarion Area Chamber of Business and Industry
- Clarion County Agricultural Preservation Board
- Clarion County Conservation District
- Clarion County Economic Development Corporation
- Clarion County Parks Department
- Clarion Hospital/ Butler Health System
- Clear Lake Authority
- Cochranon Area Greenways, Inc.
- Conneaut Lake Aquatic Management Association
- Conneaut Lake Health Center
- Council of Greenways & Trails (CGT)
- Corry Area Chamber of Commerce
- Corry Community Development
- Corry Memorial Hospital
- Crawford County Planning Commission (CCPC)
- Edinboro Chamber of Commerce
- Edinboro University of Pennsylvania
- Envision Linesville
- Erie Downtown Partnership
- Erie Outing Club
- Erie to Pittsburgh Trail Alliance (EPTA)
- Erie Regional Chamber and Growth Partnership
- Erie Runners Club
- Erie Shriners Hospital
- Focus on Forest Future
- Forest County Visitors Bureau
- Foxburg Information Center, Inc.
- Franklin Area Chamber of Commerce
- Franklin Industrial and Commercial Development Authority
- French Creek Recreational Trails, Inc.
- French Creek Valley Conservancy
- Gannon University
- Girard Lake City Chamber of Commerce
- Hamot Medical Center
- Impact Corry
- Jamestown Audubon Society
- Jamestown Lions Club
- Kalbfus Road and Gun Club
- Lake Country Bike
- Lake Erie Region Conservancy
- Lake Erie-Allegheny Earth Force

- Local and Regional Businesses and Foundations
- Local Municipalities
- Lumber Heritage Region of Pennsylvania, Inc.
- Marienville Area Civic Association
- Marienville Chamber of Commerce
- Meadville / Western Crawford County Chamber of Commerce
- Meadville Medical Center
- Mercyhurst College
- Millcreek Community Hospital
- North County Trail Association
- North East Chamber of Commerce
- Northern Allegheny Conservation Association
- Northwest Pennsylvania Trails Association
- Oil Creek Planning Commission (OCPC)
- Oil Region Alliance of Business, Industry and Tourism
- Penn Soil Conservancy Charitable Trust
- Penn Soil Resource Conservation and Development Council
- Penn State Erie
- PennWest Clarion University
- Penn/Ohio Watershed Association
- Pennsylvania Advocates for Nutrition and Activity
- Pennsylvania Audubon Society
- Pennsylvania Department of Conservation and Natural Resources Bureau of State Parks
- Pennsylvania Department of Conservation and Natural Resources, Bureau of Forestry
- Pennsylvania Department of Conservation and Natural Resources, Chapman State Park
- Pennsylvania Department of Conservation and Natural Resources, Clear Creek Forest District
- Pennsylvania Department of Conservation and Natural Resources, Cook Forest State Park
- Pennsylvania Department of Conservation and Natural Resources, Cornplanter Forest District
- Pennsylvania Department of Conservation and Natural Resources, Oil Creek State Park
- Pennsylvania Department of Conservation and Natural Resources, Pymatuning State Park
- Pennsylvania Department of Transportation
- Pennsylvania Environmental Council
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission
- Pennsylvania Great Outdoors Tourism Bureau
- Pennsylvania Hardwood Development Council
- Pennsylvania Lake Erie Watershed Association
- Pennsylvania Route 6 Heritage Corporation
- Pennsylvania Sea Grant
- Pennsylvania State University Agricultural Extension Offices
- Pennsylvania Sustainable Forestry Initiative
- Pennsylvania Wilds Corporation
- Presque Isle Audubon Society
- Presque Isle Cycling Club
- Presque Isle Partnership
- Private Timber Producers
- Pymatuning Lake Association
- Redbank Renaissance, Inc.

- Redbank Valley Chamber of Commerce
- Redbank Valley Trails Association
- Seneca Rocks Audubon Society
- Shenango River Watchers
- St. Vincent Health System
- The Nature Conservancy
- Tionesta Chamber of Commerce
- Tionesta Valley Snowmobile Club, Inc. and Warren County Snowmobile Club
- Titusville Area Chamber of Commerce
- Titusville Area Hospital
- Titusville Area Trails Association (TATA)
- Titusville Planning Commission (TPC)
- Titusville Redevelopment Authority
- Titusville Renaissance, Inc.
- Titusville Wellhead Protection Committee
- Trout Unlimited Chapters
- U.S. Army Corps of Engineers, Woodcock Creek Lake
- U.S. Fish and Wildlife Service
- U.S. Forest Service, Allegheny National Forest
- Union City Memorial Hospital
- University of Pittsburgh at Titusville
- University of Pittsburgh Medical Center – Northwest
- UPMC Horizon
- Venango Area Chamber of Commerce
- Venango Conservation District
- VisitErie
- Warren County Agricultural Preservation Board
- Warren County Chamber of Business and Industry
- Warren County Conservation District
- Warren County Council of Sportsmen's Clubs
- Warren County Recreation Department
- Warren County Visitors Bureau
- Warren General Hospital
- YMCAs and YWCAs
- Western Pennsylvania Conservancy

POTENTIAL FUNDING SOURCES

Development of a greenways network can be costly and requires a long-term strategy to access a variety of federal, state, and private sector funding opportunities. Funding programs designed to conserve natural resources, develop recreational trails, and create transportation improvements are all potential sources of grants for implementation of the projects proposed by this plan. Most require some form of local match, and sometimes one grant opportunity can be utilized as the 'local match' for another grant opportunity. This may include the funding available through the Northwest Commission's Greenways Block Grant Program.

The Greenways Block Grant Program has the potential to fund many of the proposed projects. However, the restrictions of that funding should be recognized. DCNR and DEP funding may be used for development, rehabilitation and improvements to public parks, recreation areas, greenways, trails, and river conservation. Some of the proposed projects may fall outside of these guidelines, and in those cases, the additional funding sources should be considered.

The following tables list many current funding sources that are available to assist in funding greenway efforts in the northwest Region. Because these programs are constantly changing, these tables are a starting point. When seeking grant programs, applicants should check web sites of the funding organizations for an updated listing of grant programs and eligibility requirements.

Moreover, any funding strategy should leverage local resources as well. Private and non-profit foundations in the communities and region are important sources of funding that should not be overlooked when assembling funding strategies. In addition, efforts should be made to create public- private partnerships and to seek in-kind contributions from local businesses in the communities and the region.

STATE AND FEDERAL FUNDING SOURCES

AGENCY	PROGRAM NAME	GRANT (% FUNDED) OR LOAN	BRIEF DESCRIPTION	OPEN FUNDING ROUND (TYPICAL)
Commonwealth Financing Authority (CFA)	Greenways, Trails and Recreation	Grant (85%)	Planning, acquisition, development, rehabilitation, and improvements to public parks, recreation areas, greenways, trails, and river conservation	Due in May
Commonwealth Financing Authority (CFA)	Watershed Restoration and Protection Program	Grant (85%)	Construction, improvement, expansion, repair, maintenance, or rehabilitation of new or existing watershed protection BMPs	Due in May
Dept. of Conservation and Natural Resources (DCNR)	Community Conservation Partnerships Program (C2P2)	Varies	Planning, acquisition, and development of public parks, recreation areas, trails, river conservation, and access / conservation of open space	Due in April
Dept. of Conservation and Natural Resources (DCNR)	Wild Resource Conservation Program	Grant (75%)	Priorities for species surveys, conservation / management, and climate change. Must show clear indication of wild resource benefits	Due in July
DCNR / Fish & Boat Commission / PA Trout	Coldwater Conservation Planning & Implementation Grants	Grant	Develop Coldwater Conservation Plans to conserve and protect our cold-water streams	Due in March
PA Fish & Boat Commission	Boating Facility Grant Program	Grant (50%)	Projects relating to fishing and boating access facilities and related amenities	Due in December
U.S. Fish & Wildlife Service	Cooperative Endangered Species Conservation Fund	Grant (75%)	Species and habitat conservation actions on non-federal lands	Due in April
U.S. Fish & Wildlife Service	North American Wetlands Conservation Act	Grant	Increase bird populations and wetland habitat	Due in July
PA Dept. of Environmental Protection (DEP)	319 Non-Point Source Management Grants	Grant (100%)	Address non-point source pollution originating from agriculture, stormwater runoff, stream channel degradation, and AMD	Due in June

AGENCY	PROGRAM NAME	GRANT (% FUNDED) OR LOAN	BRIEF DESCRIPTION	OPEN FUNDING ROUND (TYPICAL)
PA Dept. of Environmental Protection (DEP)	Growing Greener Plus	Grant (85%)	Watershed protection and restoration, abandoned surface mine reclamation, and abandoned oil and gas well plugging projects	Due in June
U.S. Bureau of Reclamation	Cooperative Watershed Management Program	Grant	Promote the sustainable use of water resources and improve the condition of rivers and streams through collaborative conservation efforts	Due in March
Rails-to-Trails Conservancy	Trail Grants Program	Grant	Complete and connect trails, improve trail use experience, and support local organizations dedicated to new and existing trails	Varies
U.S. Dept. of Agriculture (USDA) Forest Service	State and Private Forestry Landscape Scale Restoration (LSR) Grant Program	Grant	Funds collaborative, science-based restoration of priority rural forest landscapes, leverages public and private resources, and supports State Forest Action Plans. Outcomes: improve fish and wildlife habitat, improve water quality and watershed function, mitigate invasive plants, insect infestation, and disease, reduce wildfire risk, improve forest ecosystem health	Drafts due in September, Applications due in November
The Conservation Fund	Conservation Loans	Loan	To help accelerate the pace of conservation in your community. Includes trail and park acquisitions and construction, habitat restoration and ecosystem services, initiatives to connect people to nature, etc.	Varies
American Water (PA)	Environmental Grant Program	Grant	Community-based projects that improve, restore, or protect the watersheds, surface water, and groundwater supplies	Due in March

REGIONAL FUNDING SOURCES

AGENCY	PROGRAM NAME	GRANT (% FUNDED) OR LOAN	BRIEF DESCRIPTION	OPEN FUNDING ROUND (TYPICAL)
Appalachian Regional Commission	Area Development Program	Grant (30-80%)	Projects that create and retain jobs in the Appalachian Region including trail investments	Varies
National Fish and Wildlife Foundation (NFWF)	Central Appalachia Habitat Stewardship Program	Grant (50%)	Restore and sustain healthy forests, rivers, and streams that provide habitat for diverse native bird and aquatic species populations	Varies
PA Dept. of Environmental Protection (DEP) & NOAA	Coastal Zone Grants	Grant (50%)	Used to implement the Coastal Resources Management Program. Focus Areas: Coastal Hazard Areas, Fisheries Management, Wetlands, Public Access for Recreation, Historic Sites / Structures, Port Activities, Energy Facilities, Intergovernmental Coordination, Public Involvement, and Ocean Resources / Biodiversity	Due in October
National Oceanic and Atmospheric Association (NOAA)	Coastal and Marine Habitat Restoration Grants	Grant	Restoration projects that use a habitat-based approach to rebuild productive and sustainable fisheries, contribute to recovery and conservation of resources, promote healthy ecosystems, and yield community and economic benefits	Due in April
Western PA Conservancy	Canoe Access Development Grants	Grant (100%)	Improve or develop stream access sites for canoeing or kayaking	Due in November
Northwest Commission	Greenways Block Grant Program	Grant (50-90%)	Facilitate the implementation of the natural systems greenway recommendations contained in the Northwest Pennsylvania Greenways Plan (NPGP) and the resulting individual eight county plans.	Varies

COUNTY SPECIFIC FUNDING SOURCES

AGENCY	PROGRAM NAME	GRANT (% FUNDED) OR LOAN	BRIEF DESCRIPTION	OPEN FUNDING ROUND (TYPICAL)
PA Dept. of Community & Economic Development (DCED)	Community Development Block Grant (CDBG)	Grant	Projects that benefit low- and moderate-income persons, prevent or eliminate slums or blight, or address community development needs, including parks and recreation facilities improvements – separate programs by County	Due in November
Crawford County Planning	Act 13 Environmental Initiative Fund Program	Grant (50%)	Planning, acquisition, design, conservation, construction, development, repair, rehabilitation, or beautification of: greenways, recreational trails, open spaces, natural areas, community and heritage parks, and water resource management	Due in March
Erie County Gaming Revenue Authority	Community Assets Grant: Parks, Fields, & Trails	Grant	To provide funding for capital projects to create, protect, or improve publicly accessible parks, athletic fields, and trails throughout Erie County	Varies
U.S. Dept. of Agriculture (USDA) Forest Service	Allegheny Resource Advisory Committee: Natural Resource Project Proposals	Grant	Projects that benefit fish, wildlife, soils, watersheds, and other resources; that maintain roads, trails, and other existing infrastructure; obliterate unneeded roads; or control noxious weeds in Forest County	Varies

PROPOSED PROJECTS

The following proposed project tables are intended to document the regional support from citizens, municipalities, and other regional organizations for specific efforts. The review of regional projects and regional planning documents completed since 2009, and analysis of the public engagement comments, were synthesized with the proposed project lists from the 2009 Greenways Plan to create an up to date and comprehensive list of greenways and greenway related projects that should be supported and prioritized moving forward. The interconnectedness of these projects should also be taken into consideration as funding becomes available. Opportunities to coordinate development efforts and promote consistency throughout the region should be prioritized in addition to extending the greenways network.

The prioritization or ranking of the projects proposed by the 2009 plan has been removed as the goal of this plan is to represent the general support for a project to be completed as funding becomes available. Organizations looking to fund a specific project should consider it based on the appropriateness of the funding. The structure of the projects is also not meant to limit the funding of smaller portions of a given project, but instead to show that there is support for any or all pieces of these large projects.

The proposed project categories include:

- Greenways
- Land Trails
- Water Trails
- Trail Gaps
- Access Projects
- On-Trail Facilities
- Outdoor Towns
- Thematic Projects

GREENWAYS

The proposed greenways projects are largely based on the analysis completed in the original 2009 plan. The projects originally proposed were updated based on feedback from the public and Steering Committee, and recent regional planning documents reviewed. Projects that have been completed since 2009 were removed from the list, however, partially completed or in progress projects remain to show ongoing support for funding the remaining pieces of the efforts. The input received during this process indicated that no greenways project had been completed since the 2009 plan. For additional project details, please refer to the project description in the 2009 Plan.

The 2009 Greenways Plan inventoried and analyzed all existing and potential recreation and transportation greenway corridors. The greenways were assessed based on trail demand, the degree of land acquisition required, potential to improve connectivity of the regional network, environmental and historical impacts, benefits to the public, potential for funding opportunities and partnering, and the potential for economic development. Based on this analysis, the prioritized establishment of forty-four recreation and transportation greenway corridors was recommended for the northwest Pennsylvania region.

Proposed Greenway Projects

PROPOSED GREENWAY CORRIDORS	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Allegheny River Greenway	X			X			X	
Allegheny River/Reservoir Greenway								X
Ashtabula Creek Greenway			X					
Beaver / Mahoning Rivers Greenway					X			
Big Run Greenway					X			
Blue Eye Run Greenway								X
Bluejay Creek Greenway				X				
Blyson Run Greenway	X							
Brokenstraw Creek Greenway			X					X
Caldwell Creek Greenway								X
Canoe Creek Greenway	X							
Clarion River Greenway	X			X				
Coffee Creek Greenway								X
Conewango Creek Greenway								X
Conneaut Creek Greenway		X	X					
Conneaut Lake/Outlet Greenway		X						
Conneauttee Creek/Edinboro Lake Greenway		X	X					
Cook Forest Greenway	X			X				
Coon Creek Greenway				X				
Crooked Creek Greenway			X			X		
Cussewago Creek Greenway		X	X					
Deer Creek Greenway	X							
Dennison Run Greenway							X	
East Hickory Creek Greenway				X				X
East Sandy Creek Greenway							X	
Elk Creek Greenway			X					
Erie/Presque Isle/Mill Creek Greenway			X					
Falls Run Greenway			X					
French Creek Greenway		X	X				X	
Hemlock Creek Greenway	X						X	
Hemlock Run Greenway								X
Hickory Run Greenway					X			
Hubbel Run Greenway			X					
Irvine Run Greenway								X
Jackson Run Greenway								X
Lake Pleasant Greenway			X					
LeBoeuf Creek Greenway			X					
Little Beaver Creek Greenway					X			
Little Brokenstraw Creek Greenway								X
Little Coon Creek Greenway				X				
Little Hickory Run Greenway				X				
Little Shenango Creek Greenway						X		
Little Sugar Creek Greenway		X						
McKee Run Greenway					X			
Mead Run Greenway								X
Mill Creek Greenway							X	
Mill Creek/Kahle Lake Greenway	X						X	
Muddy Creek Greenway		X						
Neshannock Creek Greenway					X			
Oil Creek Greenway		X					X	
Otter Creek Greenway						X		
Patchel Run Greenway							X	

PROPOSED GREENWAY CORRIDORS	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Pine Creek Greenway	X							
Piney Tract Greenway							X	
Pithole Creek Greenway							X	
Pymatuning Reservoir Greenway		X						
Queen Creek Greenway								X
Raccoon/Turkey Creeks Greenway			X					
Redbank Creek Greenway	X							
Ross Run Greenway				X				
Salmon Creek Greenway				X				
Sandy Creek Greenway		X					X	
Scrubgrass Creek Greenway							X	
Sevenmile/Eightmile Creeks Greenway			X					
Shenango River Greenway						X		
Sixmile/Fourmile Creeks Greenway			X					
Sixteenmile Creek Greenway			X					
Slippery Rock Creek Greenway					X			
South Branch French Creek Greenway			X					
South Branch Tionesta Greenway				X				X
Spring Creek/Wolf Run Greenway				X				
Stillwater Creek Greenway								X
Sugar Creek Greenway		X					X	
The Branch Greenway				X				
Tidioute Creek Greenway								X
Tionesta Creek Greenway				X				X
Tippery Greenway							X	
Toby Creek Greenway				X				
Trout Run Greenway			X					
Tubbs Run Greenway				X				
Turkey Run Greenway	X							
Twelvemile Creek Greenway			X					
Twentymile Creek Greenway			X					
Two Mile Run Greenway/ Justus Lake Greenway							X	
Union City Reservoir Greenway			X					
Walnut Creek Greenway			X					
West Branch French Creek Greenway			X					
West Branch Millstone Greenway				X				
West Branch Tionesta Creek								X
West Hickory Creek Greenway				X				X
Wolf Creek Greenway						X		
Woodcock/ Lake Creeks Greenway		X						

LAND TRAILS

Like the proposed greenway projects, the proposed land trail projects are based on a synthesis of the 2009 analysis and feedback from the public and Steering Committee. Projects completed since the 2009 plan have been removed.

Additional project descriptions can be found in Appendix A.

Proposed Land Trail Projects

PROPOSED LAND TRAIL NAME	CLARION	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Albion to Conneaut Harbor Trail			X					
Albion to Girard Trail			X					
Allegheny & Eastern Railroad			X					
Allegheny River Trail	X					X		
Bear Lake Trail								X
Canadohta Lake Trail		X						
Conneaut Lake Trail		X						
East Brady to Chicora Trail	X							
East Branch Trail		X						
End of the Road Trail		X						
Ernst Trail		X						
Foxburg to Bruin Rail- Trail/ Bike Lane	X							
Freeport Trail			X					
French Creek Trail		X					X	
French Portage Trail			X					
Lake Pleasant Connector Trail			X					
Lake to Lake Trail (Linesville to Girard)		X	X					
Redbank Valley Trail to Sligo	X							
Linesville to Conneaut Lake Trail		X						
Little Shenango Creek Greenway Trail						X		
Mill Village to Corry Trail			X					
Neshannock Rail Trail					X			
North Country Scenic Trail	X			X	X		X	X
Otter - Wolf Loop Trail						X		
PA Wilds Loop	X			X				X
Polk/Franklin Loop Trail							X	
Pymatuning Valley Trail		X						
Shenango River Rail Trail					X	X		
Spillway Trail		X						
Stavich Bike Trail					X			
Thornton Junction Trail			X					
Tidioute Trail								X
Tionesta Creek Trail				X				
Titusville Queen City Trail		X						
Titusville to Youngsville Trail		X						X
Venango Frankstown Path Trail	X							
Warren to Kinzua Dam Trail								X
Warren Trail				X				X
Warren\North Warren Trail								X
Washington Trail			X					
West Branch Tionesta Creek Trail								X
Youngsville to Warren Trail								X

WATER TRAILS

Proposed water trail projects are also based on a synthesis of the 2009 analysis and feedback from the public and Steering Committee. Projects completed since the 2009 plan have been removed.

Additional project descriptions can be found in Appendix B.

Proposed Water Trail Projects

PROPOSED WATER TRAIL NAME	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Allegheny Reservoir Water								X
Beaver River Water Trail					X			
Brokenstraw Creek Water								X
Clarion River Trail	X							
Conewango Creek Water Trail								X
French Creek Water Trail		X	X			X	X	
Mahoning River Water Trail					X			
Oil Creek Water Trail		X					X	
Presque Isle Bay Water Trail			X					
Redbank Creek Water Trail	X							
Shenango River Water Trail		X			X	X		
Tionesta Creek Water Trail				X				X

TRAIL GAPS

This list was created based on a gap analysis which is explained and presented on the data site. Following DCNR prioritization, filling trail gaps and connections should be the top priority in expanding the greenways network. This list of projects illustrates gaps identified based on community input, natural features, and existing facilities data, and should be prioritized in addition to the DCNR top trails which can be seen here- <https://www.gis.dcnr.state.pa.us/storymaps/trailgaps/>

Proposed Projects From the Gap Analysis

PROPOSED TRAIL GAP PROJECTS	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Allegheny River Trail	X						X	
Connect Shenango River Trail to Pymatuning Reservoir						X		
Connect Shenango River Trail to Trout Island Trail						X		
Connect snowmobile trails		X						
East Branch Trail		X						
Ernst Trail to Meadville		X						
Ferry from Presque Isle to Erie needed			X					
French Creek Water Trail			X					
Knox to Kane Rail Trail Gap along abandoned rail line				X				
Potential trail on abandoned rail line		X						X
Queen City Trail		X						
Stavich Bike Trail to Neshannock Creek Trail (New Castle)					X			
Trail along Shenango River- connecting Pymatuning Reservoir to New Castle					X	X		
Upper Hillville to Parker connects Armstrong Trails to the Allegheny River Trail	X							

ACCESS PROJECTS

The expansion and maintenance of the northwest Pennsylvania greenways and trails network loses value if people cannot easily access the natural, historical and cultural resources it seeks to promote. Access projects would include any project that works to improve access to a greenway or trail facility. These projects were incorporated into the plan based on public and Steering Committee input.

Access projects may include improving access to a water trail through the addition of a canoe and kayak launch site, or improvements to existing trail heads. These projects may also include the promotion of regional transportation that would allow greenway users to move more easily between recreational sites, land or water trails. Public comment indicated that transportation or shuttle services that would enable one-way trips along land or water trails might also increase visits to some facilities.

Proposed Access Projects

PROJECT	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Improve Access to Oil Creek		X					X	
Improve Access to Clarion River	X							
Pursue regional shuttle, taxi or ride service that would enable one-way trips along land and water trails	X	X	X	X	X	X	X	X
Improve access to Allegheny Wild and Scenic River Water Trail				X				X

ON-TRAIL FACILITIES

Access to on-trail facilities, like restrooms, improved signage, shelters or benches improves a trail users experience and increases the likelihood of users returning to the area. On-trail facilities projects were incorporated into the plan based on public comment. The projects proposed for this category are based completely on public comment and may be found in the public participation map on the data site. The mapping exercise allowed users to indicate a need for the following types of amenities for a specific greenway or trail area:

- Benches
- Picnic Areas
- Lighting
- Trail Signs/ Guidance
- Restrooms
- On-Trail Activities
- Safety Features
- Bike Racks
- Parking
- Bicycle Repair Stations
- Other

OUTDOOR TOWNS

It should be the goal of recreation and transportation greenways in the northwest Pennsylvania region to attract trail users to the main street districts, where they can find goods and services. While the 2009 plan prioritized trail towns, based on input from the Steering Committee and new promotion by the Pennsylvania Environmental Council (PEC) this plan advocates for the creation of outdoor towns. While the concepts are similar, outdoor towns will be more all-encompassing of both trail and any other outdoor recreation connections. This will ensure that the areas are not limited by public perception of what may be available.

The PEC describes Outdoor Towns as, “vibrant communities that connect places to eat, stay, and shop with people seeking adventure,” and outlines the following benefits of being an outdoor town:

- **Economic** – According to the 2017 National Recreation Economy Report, outdoor recreation is an economic powerhouse in the United States, each year generating \$887 billion in consumer spending and 7.6 million jobs.
- **Quality of life** – A walk-able and bike-able community offers transportation choices to all citizens regardless of age, ability, or socio-economic status. Community walkability is a major factor in families’ decision to move to a town, and studies show that shops experience up to 80 percent more business if they have regular foot traffic.
- **Health** – Doctors all agree that outdoor recreation is good for mental and physical health. Some doctors have even started prescribing walking on trails to benefit patients.

The PEC has developed an Outdoor Towns Toolkit, which should be used as a resource for any municipality in northwest Pennsylvania looking to gain this designation- whether they are listed as a proposed outdoor town project in this plan or not. The toolkit can be found at the following site- <https://townsandtrailstoolkit.com/whatisanoutdoortown/>.

It is recommended that education and coordination in the planning and development of outdoor towns continue with any applicable municipalities. Many communities in the region are ideally situated to capitalize on the concept, to maximize the economic benefits that can come with greenway development.

The following list of proposed outdoor towns is based on the proposed trail towns from the 2009 plan. Because of the similarity in the two concepts, it was assumed that these municipalities are still best suited to pursue this designation.

Proposed Outdoor Towns Projects

PROPOSED OUTDOOR TOWNS	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Cambridge Springs		X						
Clarion Borough	X							
Cochrannton		X						
Conneaut Lake		X	X					
Cooksburg				X				
Corry			X					
East Brady	X							
Ellwood City					X			
Emlenton							X	
Erie/ Erie Bayfront			X					
Foxburg	X							
Franklin							X	
Girard			X					
Greenville						X		
Grove City						X		
Hydetown		X						
Jamestown						X		
Linesville		X						
Marienville				X				
Meadville		X						
Mercer						X		
New Bethlehem	X							
New Castle					X			
New Wilmington					X			
North East			X					
Oil City							X	
Sharon						X		
Spartansburg		X						
Tidioute								X
Tionesta				X				
Titusville		X						
Volant					X			
Warren								X
Waterford			X					
Youngsville								X

THEMATIC PROJECTS

This section provides suggested projects related to specific themes that arose during the data and input gathering process. While the other projects relate to specific geographic locations, these projects generally relate to resolving issues experienced regionally. These projects are grouped based on the following themes:

- Education & Engagement
- Marketing
- Regional Coordination & Data
- Safety

Proposed Thematic Projects

THEME	PROPOSED PROJECT	CLARION COUNTY	CRAWFORD COUNTY	ERIE COUNTY	FOREST COUNTY	LAWRENCE COUNTY	MERCER COUNTY	VENANGO COUNTY	WARREN COUNTY
Education	Observation deck at the Oil Creek/Pine Creek confluence on the Queen City Trail to feature the Heron Rookery.		X						
Education	Construction of a regional environmental education center on the Queen City Trail in the reclaimed brownfield adjacent to the Heron Rookery to teach the story of environmental recovery from the oil, gas, and steel industries.		X						
Marketing	Work with PennDOT to implement billboards advertising the Northwest Pennsylvania Greenways network along major routes.	X	X	X	X	X	X	X	X
Marketing	Collaborate regionally to promote the Northwest Pennsylvania Greenways in surrounding states to increase tourism.	X	X	X	X	X	X	X	X
Regional Coordination & Data Sharing	Establishing branding and consistent visual identity for the Northwest Regional Greenways facilities and signage.	X	X	X	X	X	X	X	X
Regional Coordination & Data Sharing	Promote regional coordination through the continued use of the data site for data and information sharing.	X	X	X	X	X	X	X	X
Regional Coordination & Data Sharing	Facilitate regional discussion of greenways advancement every 3 to 5 years.	X	X	X	X	X	X	X	X
Safety	Improve Regional Broadband/ Wifi Connection, including access along greenways and trails in order to improve safety.	X	X	X	X	X	X	X	X
Safety	Incorporate consistent signage and area markers to improve location awareness in case of emergencies.	X	X	X	X	X	X	X	X
Safety	Install and maintain water gauges and thermometers at strategic locations along water trails to ensure necessary safety information is available.	X	X	X	X	X	X	X	X

PROJECT COST ESTIMATION

The feasibility and potential success of a proposed project is highly dependent on cost - from land acquisition to construction to maintenance. Outside of the more abstract project types (e.g. thematic projects), the key cost driver for linear greenway projects is length. For land trail projects, approximate lengths are listed in the following table that were derived from GIS analysis. However, the cost of greenway/ trail construction is challenging to realize due of the many variables that are involved in addition to simple project length. Trail location, width, surface, required structures (e.g. bridges, railings), drainage elements, signage, and amenities all affect total construction cost.

Projects may also have significant costs before construction even begins. As the 2009 plan states, feasibility studies are critical in developing an accurate cost structure for a given project. Even for small trail connections, feasibility studies need to be extensive in scope to analyze all aspects of planning, construction, and design. The 2009 study suggested an average cost of \$55,000 for a feasibility study (including title searches and legal analysis) across all projects in the 8-county region, which is approximately \$75,000 in today’s dollars. Although substantial, this is a good baseline feasibility study cost for an average project size.

A construction cost of \$75 per linear foot of trail and base has been used to provide a general idea of estimated construction cost for land trail projects. However, as feasibility evaluations were not conducted as part of this study, it should be reiterated that these are rough estimates and that this cost summary table should be used for a holistic view of the major cost elements to be considered when estimating total project expense- not an exact value. Project variables, desired amenities, and other construction assumptions (typically generated from the findings of the feasibility study) can be entered into the table to approach more realistic greenway project costs.

TRAIL PLANNING EXAMPLE COST ESTIMATE				
DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	
FEASIBILITY STUDY			5%	OF ESTIMATED CONSTRUCTION COST
DESIGN & ENGINEERING			10%	OF ESTIMATED CONSTRUCTION COST
PERMITTING				WILL VARY BASED ON PERMITS NECESSARY, IF ANY
<u>CONSTRUCTION</u>				
SITE CLEARING				
DEMOLITION				
TRAIL INSTALLATION		LF	\$75.00	APPROXIMATE COST FOR TRAIL SURFACE AND BASE
LANDSCAPE RESTORATION		LF	\$10.00	
TRAIL AMENITIES				TRASH CANS, BENCHES, ETC.
TRAIL SIGNAGE		EA	\$300.00	
PEDESTRIAN ACCESS/CROSSINGS				CROSSWALKS, ADA ACCESS, ETC.
STORMWATER INFRASTRUCTURE				
RESTROOM FACILITIES				
WATER LINE EXTENSION				INCLUDE TAPPING FEES, METERS, ETC.
SEWER LINE EXTENSION				INCLUDE AUTHORITY FEES
CONTINGENCY			20%	OF ESTIMATED CONSTRUCTION COST
CONSTRUCTION ADMINISTRATION			5%	OF ESTIMATED CONSTRUCTION COST
CONSTRUCTION OBSERVATION			5%	OF ESTIMATED CONSTRUCTION COST

MEASURING PROGRESS

To help ensure that these proposed projects are realized, the final critical piece of the implementation process is monitoring progress using performance measures. Performance measurement is the regular collection and analysis of outcomes and results related to a project, which helps to ensure the effectiveness and efficiency of the program. In this case, performance measures have been defined to help ensure the implementation of this plan, as well as assist in measuring the performance related to the Greenways Block Grant Program. Performance measures have been defined based on measuring the number of proposed projects implemented, as well as general additions made to the region, to make sure that any projects not captured in this plan are still credited as part of forward progress in the development of the regional greenways and trails network.

Performance measurement should take place every one to two years to make sure that implementation is on track. The data site may be used to help track these performance measures and share the information with regional partners, which will also help to further goals of regional coordination. The performance measurement process will also help determine when another update to Greenways Plan may be needed, to ensure the relevance of and ongoing support for the remaining proposed projects.

PROJECT TYPE	MEASURE	FREQUENCY
Greenways Block Grant	Total number of funded Greenways Block Grant Projects	Annually
Greenways Block Grant	Number of Greenways Plan Proposed Projects Implemented	Annually
Greenways Block Grant	Number of Greenways Block Grant Projects that did not originate with the Greenways Plan	Annually
Data Site	Number existing data sets updated, or new data sets added to the data site	Annually
Data Site	Number of times the data site was used to share regional information	Annually
Regional Coordination	Number of regional discussion efforts	Every 3 years
Greenways	Number of completed Proposed Greenways Projects	Every 2 years
Greenways	Acres of additional greenway added to the region	Every 2 years
Land Trails	Number of completed Proposed Land Trail Projects	Every 2 years
Land Trails	Miles of additional land trails added to the region	Every 2 years
Water Trails	Number of completed Proposed Water Trail Projects	Every 2 years
Water Trails	Miles of additional water trails added to the region	Every 2 years
Gaps	Number of completed Proposed Gap Projects	Every 2 years
Gaps	Number of gaps filled in the regional greenways/trail network	Every 2 years
Access	Number of completed Proposed Access Projects	Every 2 years
Access	Number of additional access points added in the region	Every 2 years
Outdoor Towns	Number of regional towns that have gained Outdoor Town Designation	Every 2 years
On-Trail Facilities	Number of on-trail facilities projects implemented	Every 2 years
Thematic	Number of completed Proposed Thematic Projects by Type	Every 2 years

Northwest Pennsylvania Greenways Plan 2022 Update

Appendices

APPENDIX A: PROPOSED LAND TRAIL PROJECT DETAILS

The following section provides project details for all Proposed Land Trail Projects. Details were updated as data or input allowed. For any projects that were carried over from the 2009 Greenways Plan, it was assumed that details remained the same unless otherwise indicated by the Steering Committee. If the trail was listed in the 2009 Plan, but no details were included, it was assumed that no specific details exist for the project, so none were included here. Some details, like project length or size, may vary from the data available on the data site.

ALBION TO CONNEAUT HARBOR TRAIL

This proposed trail follows the Bessemer & Lake Erie Railroad corridor linking the Thornton Junction Trail to Albion and on to the Conneaut, Ohio.

- > Approximate Length: 15 miles
- > Associated Municipalities: Conneaut and Springfield Townships, as well as Albion and Cranesville Borough.

ALBION TO GIRARD TRAIL

This proposed trail follows a Bessemer & Lake Erie Railroad corridor from Cranesville, north of Albion to Wallace Junction, north of Girard and on to Lake Erie Community Park passing through Lake City along the way. The Albion to Girard Trail also connects to the Seaway Trail.

- > Approximate Length 10 miles
- > Associated Municipalities: Elk and Girard Townships, as well as Cranesville, Platea, Lake City, and Girard Boroughs.

ALLEGHENY & EASTERN RAILROAD CORRIDOR TRAIL

This proposed trail follows an active Allegheny and Eastern Railroad line from Union City to the Erie Bayfront to Behrend Trail near the Penn State Berhend Campus. This trail links with the Mill Village to Corry trail connecting the towns of Mill Village and Corry to the City of Erie, the Seaway Trail, and Presque Isle State Park.

ALLEGHENY RIVER TRAIL

This existing shared use path, developed by the Allegheny Valley Trails Association, extends approximately twenty-eight miles on flat, smooth, eight-foot wide asphalt surface from Franklin to Emlenton following the former Oil City Secondary Line. A dirt access road parallels portions of the trail and is suitable for horseback riding.

The Allegheny River Trail in Clarion County (ARTinCC) is currently in the process of securing the right for public access between Emlenton and Foxburg, in Clarion County. Once this access is secured, the Allegheny River Trails in Clarion County (ARTinCC) will begin securing funds and improving the trail.

- > Approximate Length: 28 miles.
- > Associated Municipalities: Richland, Rockland, and Cranberry Townships, the City of Franklin, and Emlenton Borough.

BEAR LAKE TRAIL

This trail follows the inactive Conrail Bear Lake Line from CM Junction, near Columbus, to the New York State border.

- > Approximate Length: 8.2 miles
- > Associated Municipalities: Columbus and Freehold Townships.

CONNEAUT LAKE TRAIL

This trail runs northwest out of Fireman's Beach along Conneaut Lake to Meadville Junction, following the former Bessemer & Lake Erie Railroad line, which ceased operation in 1977. This trail has potential to connect Conneaut Lake with Linesville.

- > Approximate Length: 3.5 miles
- > Associated Municipalities: Sadbury and Summit Townships, and Conneaut Lake Borough.

END OF THE ROAD TRAIL

This proposed trail is a connection between the Spillway Trail and Linesville Beach area. It extends approximately 1.5 miles along the northern shore of Pymatuning Reservoir. The End of the Road trail would also link up with the Spillway Trail to provide a connection between Linesville and the recreation facilities at the end of the road.

An extension of this trail called the Seabee Trail would provide an approximately one half mile link between the Linesville Beach and Lynn Summers Little League Complex, on Route 6 west of Linesville

The End of the Road and Seabee Trail effort is being furthered by Envision Linesville and Pymatuning State Park.

- > Approximate Length: 3.3 miles
- > Associated Municipalities: Pine and Conneaut Townships, as well as Linesville Borough.

EAST BRANCH TRAIL - CRAWFORD COUNTY

Currently, the East Branch Trail, owned and managed by the Clear Lake Authority in Spartansburg, is improved from just south of the Erie County line on Route 89, to Spartansburg. With an additional 2.4 miles from Rosenberg Road south through the Crawford County Forest to Mainstreet in Hydetown. Potential exists to develop the trail from Spartansburg to Centerville, then south to Hydetown, and to connect to the Queen City Trail in Titusville. Although the entire length is undeveloped, most sections are passable.

It is anticipated that an additional 5.1 miles of trail and the rehabilitation of the Sportsman Road Bridge will be complete by 2026. Funding is secured for most of this work depending on price fluctuation of materials.

- > Approximate Length: 16.5 miles
- > Associated Municipalities: Spartansburg Borough, Spartan Township, Rome Township, Centerville Borough, Steuben Township, Troy Township, Oil Creek Township (Crawford County), Hydetown Borough, and the City of Titusville.

EAST BRANCH TRAIL - ERIE COUNTY

This proposed trail connects the City of Corry, via the Mill Village to Corry Junction Greenway Trail, with Clear Lake in Crawford County. Following along an unused railroad corridor as feasible. After conversations with the Western New York and Pennsylvania Railroad the proposed trail from Corry south to Lovell Road will reside within the rail corridor with the active railroad. A letter of commitment to work with the trail organizations has been signed by the railroad. The next step is to engineer the segment with the Railroad input before an official license agreement can be executed. This trail segment is part of the proposed eastern

route of the Erie to Pittsburgh Trail system. The section of this trail within Erie County runs from the Erie County line, northwest of Spartansburg in Crawford County, to the Mill Village to Corry Junction Greenway Trail, passing State Game Land No. 144.

- > Approximate Length: 4 miles
- > Associated Municipalities: Concord Township and the City of Corry.

ERNST TRAIL

The existing section of the Ernst Trail is paved and runs approximately 5 miles from the Park Avenue Plaza in Meadville to Route 19. The remaining section proposed in this plan, runs from Route 19 another 6 miles to Conneaut Lake. The proposed section is still undeveloped, but is passable by hikers and mountain bikers. The trail route follows the former Meadville to Linesville Railroad corridor.

- > Approximate Length: 11 miles
- > Associated Municipalities: Union, West Mead, and Vernon Townships, as well as the City of Meadville.

FOXBURG TO BRUIN RAIL- TRAIL/ BIKE LANE

This partially on-road, partially mixed-used rail-trail path provides a connection between Foxburg and Bruin- just outside the Northwest Pennsylvania Region.

- > Approximate Length: 12 miles
- > Associated Municipalities: Foxburg Borough, Bruin Borough

FREEPORT TRAIL

This proposed trail follows Freeport Road, State Route 89 connecting North East Borough with the Seaway Trail, Halli Reid Park, and Freeport Beach.

- > Approximate Length 1.75 miles
- > Associated Municipalities: North East Township and North East Borough.

FRENCH CREEK TRAIL- VENANGO COUNTY

This proposed trail runs along French Creek from Franklin to Meadville, Crawford County partially along the former Oil City Branch of the New York Central Railroad and also along the Franklin Secondary line. The Franklin Secondary line is currently active. If it should become available, efforts should be made to obtain the right-of-way for future trail use.

- > Approximate Length: 11.5 miles in Venango County
- > Associated Municipalities: Frenchcreek and Canal Townships, Sugarcreek, and Utica Boroughs, as well as the City of Franklin.

FRENCH CREEK TRAIL- CRAWFORD COUNTY

This proposed trail would link Meadville, via the Ernst Trail, with the City of Franklin, Venango County, by following the active Franklin Secondary Line along French Creek. While rail-with-trails do exist in other places, this is not the most ideal situation. Additionally, it can be difficult to work with the rail road to obtain permission for this type of shared use trail. If the rail line ever becomes inactive, the County or local trail advocacy group should pursue means of obtaining the right-of-way before it is reverted. Another potential alignment that should be considered is to provide continuity of the trail by sharing the road, utilizing the existing low volume roads located west of State Route 322 and east of French Creek.

A master plan was completed for a segment of the French Creek Trail beginning north of Lincoln Park, and connects to the existing Ernst Trail in the vicinity of State Route 19. The master plan also identified the

opportunity for a spur through the City of Meadville along Mill Run, past the high school and Meadville Area Recreation Center, and extending to Tamarack Lake. To date there has not been any implementation completed for these trail segments, although Allegheny College is pursuing implementation of the natural system greenway corridor associated with Mill Run, as it flows through the City of Meadville.

- > Approximate Length: 10.1 miles within Crawford County
- > Associated Municipalities: Union, East Fairfield, Fairfield, and Wayne Townships, as well as Cochranon Borough.

FRENCH PORTAGE TRAIL

This proposed trail follows a former trade route between Fort LeBoeuf, near present day Waterford Borough and Fort Presque Isle. This overland trade route was used to transport goods from Lake Erie to French Creek where they could be canoed downstream to the Allegheny, the Ohio, and the Mississippi Rivers. This trail would connect the City of Erie and Presque Isle State Park to Waterford and on to Crawford County via the Washington Trail.

- > Approximate Length 17.3 miles
- > Associated Municipalities: Summit, Waterford, and Mill Creek Townships, and Waterford Borough, as well as the City of Erie.

LAKE PLEASANT CONNECTOR TRAIL

This proposed trail connects the Allegheny and Eastern Railroad Corridor to Lake Pleasant following Dublin Road.

- > Approximate Length 4.5 miles
- > Associated Municipalities: Waterford Township.

LAKE TO LAKE TRAIL (LINESVILLE TO GIRARD)

This proposed trail follows the former Pittsburgh, Bessemer, and Lake Erie Railroad line, which runs from Jamestown to Erie County. The Lake to Lake section of this rail corridor runs from Linesville to Erie County, where it has potential to link up with the Seaway Trail near Girard.

This trail has potential to connect to the Spillway Trail, the end of the Road Trail, and the Linesville to Conneaut Lake Trail, making it an asset to regional trail development.

- > Approximate Length: 13.7 miles in Crawford County
- > Associated Municipalities: Pine, Conneaut, and Spring Townships, as well as Linesville Borough.

LINESVILLE TO CONNEAUT LAKE TRAIL

This proposed trail will provide a connection between Linesville and Conneaut Lake, ultimately on to Meadville via the Ernst Trail Extension. The Linesville end of this trail from the Spillway Trail Extension north to Townline Road would utilize the bed of the former Meadville-Linesville Railroad. The majority of this right-of-way is still intact and already in use as an undesignated trail. From the intersection with Townline Road, the trail would continue south along low volume roads to Route 285, which it would follow east to Conneaut Lake.

- > Approximate Length: 9.4 miles
- > Associated Municipalities: Pine and Sadsbury Townships, as well as Linesville and Conneaut Lake Boroughs.

LITTLE SHENANGO CREEK GREENWAY TRAIL

This trail would provide a connection between Sandy Lake, Stoneboro, Clarks Mills, Hadley, Salem/Leeches Corners, Osgood and Greenville, while providing conservation and recreation along the river corridor.

- > Approximate Length: 20-25 miles
- > Associated Municipalities: Sandy Lake Township, Sandy Lake, Stoneboro, Lake Township, New Vernon Township, Perry Township, Salem Township, Sugar Grove Township

MILL VILLAGE TO CORRY TRAIL

This inactive Norfolk Southern Railroad Corridor will connect Mill Village, through Union City, to the City of Corry. This trail could eventually connect to the Erie National Wildlife Refuge in Crawford County.

- > Approximate Length: 19 miles
- > Associated Municipalities: LeBoeuf, Union, and Concord Townships, along with Mill Village and Union City Boroughs, and the City of Corry.

NESHANNOCK RAIL TRAIL

This previously planned trail follows an inactive rail corridor from New Castle to Volant, with a spur connection to New Wilmington. Approximately seventy-five percent of the corridor is open or maintained in some way.

- > Approximate Length: 12.5 miles
- > Associated Municipalities: City of New Castle, Hickory, Neshannock, and Wilmington Townships, and New Wilmington and Volant Boroughs.

NORTH COUNTRY SCENIC TRAIL- CLARION COUNTY

The North Country Trail is a hiking trail that will extend over 4,000 miles from New York to North Dakota, passing through six additional states along its route. Currently, over 1,800 miles of the North Country Scenic Trail have been developed off-road. Although many segments of the trail currently exist, completion of the entire route is still years away.

The section of the trail through Clarion County begins at the southern end of the Allegheny National Forest and extends through Cook Forest State Park and State Game Land No. 283. This section of trail exists through the State Park and Game Land. At this point, the established trail currently ends and does not begin again until it reaches the Butler County line, west of Parker.

Between State Game Land No. 283 and the Butler County line, the proposed trail route is undetermined. Potential routes through Clarion County include one proposed through Clarion and Callensburg Borough, crossing the Allegheny River at Parker. A temporary route connects with the Clarion Highlands Trail passing through Shippensburg and utilizing the existing Sandy Creek and Allegheny River Trails to connect to Parker.

The North Country Scenic Trail is of national significance and upon being entirely established, will follow in the footsteps of the Appalachian Trail, a 2,175-mile trail connecting Maine to Georgia. It is recommended that Clarion County, and the regional greenway coordinator, partner with the North Country Trail Association to complete a feasibility study to determine a recommended route for this trail through Clarion County.

Further, once the corridor is defined, it is recommended that the county work with their municipalities to implement land use tools to ensure compatible land use development and provide appropriate buffers to maintain the desired atmosphere of the corridor.

- > Approximate Length: 45 miles

- > Associated Municipalities: Clarion, Farmington, Highland, Licking, Monroe, Perry, and Piney Townships, as well as Callensburg and Clarion Boroughs.

NORTH COUNTRY SCENIC TRAIL - LAWRENCE COUNTY

One of the North Country Trail Association's most active chapters is located in Wampum, and is responsible for the construction, promotion, and maintenance of the trail in Lawrence and Beaver Counties.

- > Approximate Length: 20 miles
- > Associated Municipalities: Shenango, Slippery Rock, and Wayne Townships, as well as Wampum and New Beaver Boroughs.

NORTH COUNTRY NATIONAL SCENIC TRAIL - FOREST, VENANGO, AND WARREN COUNTIES

The North Country National Scenic Trail is a dedicated hiking trail in Forest and Warren Counties through the Allegheny National Forest, and utilizes the Sandy Creek and Allegheny River Trails through Venango County.

OTTER - WOLF LOOP TRAIL

Trail provides conservation and recreation along the Otter Creek Greenway, connecting Mercer, Hope Mills, Milburn, Springfield Falls, Schollard and Leesburg. Access to SGL 284.

- > Approximate Length: 20-25 miles
- > Associated Municipalities: Findley Township, Springfield Township

POLK/FRANKLIN LOOP TRAIL

A shared use path following the former Oil City Branch of the New York Central Railroad corridor is proposed to connect the Sandy Creek and French Creek Trails, creating a loop between Franklin, Polk, and the Allegheny River.

- > Approximate Length: 4.7 miles
- > Associated Municipalities: Frenchcreek Township and Polk Borough.

PYMATUNING VALLEY TRAIL

The Pymatuning Valley Trail extends from Jamestown, Pennsylvania to Jefferson in Ashtabula County, Ohio. This proposed shared-use path would connect the regional trail system in Pennsylvania to Ohio and potentially on to Ashtabula and Cleveland in the future. This trail also has the potential to connect to the Greenville to Jamestown Trail, which is proposed to parallel the proposed Shenango River Water Trail, with potential to extend further south in the Shenango River Valley.

REDBANK VALLEY TRAIL TO SLIGO

Redbank Valley Trail's Sligo Spur was completed in 2019 for 9 miles and follows the former Sligo Branch of the Pennsylvania Railroad extending nine miles from Lawsonham, along Redbank Creek to within one mile of Sligo, along Wildcat Run, in south central Clarion County.

The remaining 1.2 miles will connect Sligo residents to Rimersburg and the main Redbank Valley Trail, the Armstrong Trail, and the Erie to Pittsburgh Trail Corridor.

- > Approximate Length: 1.2 miles
- > Associated Municipalities: Toby Township and Sligo Borough.

SHENANGO RIVER RAIL TRAIL

Concurrent with this study a feasibility study is being conducted on the Shenango River to determine the potential of establishing a water trail along the Shenango River corridor.

SPILLWAY TRAIL

There are two sections of existing trail in this corridor. The first segment is located on the northern end and is a shared-use gravel section running approximately 2.8 miles along an inactive rail line from Fries Road to Linesville Road, near the fish hatchery, with access at either end of the spillway. The second existing segment begins at the southern end of the corridor in Jamestown and extends northward approximately 2.7 miles.

Extensions of the Spillway Trail will connect the northern and southern ends, from Linesville to the north and Jamestown to the south. The proposed section of this trail is approximately 6.8 miles. This trail has the potential to connect into Greenville, in Mercer County, and become part of a regional trail system.

The Spillway Trail effort is being furthered by Envision Linesville and Pymatuning State Park.

- > Approximate Length: 12.3 miles
- > Associated Municipalities: South Shenango, North Shenango, and Pine Townships, as well as Linesville Borough.

STAVICH BIKE TRAIL

The Stavich Trail extends from Union Township in Lawrence County to Struthers, Ohio by way of Lowellville, Ohio. The existing six and one-half mile stretch in Pennsylvania was constructed in the early 1980s and is in need of rehabilitation. As of this writing, design and engineering is being completed for this segment of trail. Proposed extension of the trail includes a connection into the City of New Castle and extending it further south along the Mahoning and Beaver Rivers to Wampum, with an eventual connection to the Beaver River Rail Trail in Beaver County. A feasibility study should be completed to determine the best route to make this connect.

- > Approximate Length: 18 miles
- > Associated Municipalities: City of New Castle, Mahoning, Union, Taylor, New Beaver, and Wayne Townships.

THORNTON JUNCTION TRAIL

This proposed trail follows the abandoned Bessemer & Lake Erie Railroad corridor from the Crawford County line at Pennside to Girard Junction at Erie Bluffs State Park. This trail is part of the western route of the Erie to Pittsburgh Greenway eventually connecting the Seaway Trail and Erie Bluffs State Park to Crawford County and Pymatuning State Park. This trail intersects with the Crooked Creek Trail.

- > Approximate Length: 12.5 miles
- > Associated Municipalities: Conneaut and Girard Townships.

TIDIOUTE TRAIL

The Tidioute Trail runs adjacent to the Allegheny River between Tidioute and Buckaloons Recreation Area. This trail is part of the regional Warren Trail, linking the City of Warren with Oil City in Venango County. The entire length of this trail parallels the Wild and Scenic section of the Allegheny River.

- > Approximate Length: 14.2 miles
- > Associated Municipalities: Brokenstraw and Deerfield Townships, as well as Tidioute Borough.

TIONESTA CREEK TRAIL

This proposed trail follows Tionesta Creek from Kellettsville north to Warren County, where it intersects with the North Country Trail.

- > Approximate Length: Over 20 miles within Forest County
- > Associated Municipalities: Howe, Kingsley, Green, and Tionesta Townships, as well as Tionesta Borough.

TITUSVILLE QUEEN CITY TRAIL

This trail runs for approximately two miles from the Jersey Bridge Parking Lot in Oil Creek State Park to South Martin Street. This proposed trail extension will connect the 1.4 miles of Queen City Trail to Kerr Mill Road in the area of Walmart. Then from Walmart to Hydetown.

- > Approximate Length: 6 miles
- > Associated Municipalities: City of Titusville and Oil Creek Township.

TITUSVILLE TO YOUNGSVILLE TRAIL - CRAWFORD COUNTY

This proposed trail follows the former Valley Branch of the New York Central Railroad from Titusville to Youngsville, in Warren County. The potential trail route within Crawford County runs northeast out of Titusville for about 3.6 miles before entering Warren County.

- > Approximate Length: 3.6 miles within Crawford County
- > Associated Municipalities: Oil Creek Township and City of Titusville

TITUSVILLE TO YOUNGSVILLE TRAIL - WARREN COUNTY

The proposed trail follows the former New York Central Railroad corridor from Titusville to Youngsville in Warren County.

- > Approximate Length: 22 miles
- > Associated Municipalities: Southwest, Eldred, Deerfield, Pittsfield, and Brokenstraw Townships, and Youngsville Borough.

VENANGO FRANKSTOWN PATH TRAIL

This proposed trail runs nearly 15 miles from Piney Mine to the Jefferson County border near Sutton. This path follows the route of the Mt. Laurel Railroad Clarion Secondary line. This line was purchased by Kovalchick Corp., of Indiana, PA, who is in the process of salvaging the steel from the corridor. Like the Knox and Kane corridor described above, this line may be a candidate for railbanking.

It is recommended that the Northwest Commission, the North Central Commission, and each of their participating counties, municipalities, and trail organizations position themselves to be ready to participate in a request for railbanking of this corridor should it be presented.

- > Approximate Length: 15.1 miles

WARREN TO KINZUA DAM TRAIL

This trail parallels the Allegheny River, heading east out of the City of Warren, to the Kinzua Dam. It connects Warren with the Allegheny Reservoir and potentially on to the Allegheny National Recreation Area. The majority of this trail is along the Wild and Scenic designated section of the Allegheny River.

- > Approximate Length: 6.7 miles
- > Associated Municipalities: Glade Township, and the City of Warren.

WARREN TRAIL - FOREST COUNTY

The proposed Warren Trail follows the inactive Oil City Secondary Line from Warren County to Venango County, along the Allegheny River. This proposed trail may connect Oil City with the City of Warren and pass through Tionesta, along the way in Forest County.

- > Approximate Length: 14 miles
- > Associated Municipalities: Harmony and Tionesta Townships.

WARREN TRAIL - WARREN COUNTY

The Warren Trail follows the abandoned Oil City Secondary Line, from Warren County to Venango County, along the Allegheny River. The trail connects Oil City with the City of Warren and passes through Tionesta, in Forest County, as well as Tidioute, in Warren County, along the way. The Warren Trail merges with the Tidioute Trail in Tidioute, which it follows north to the Youngsville to Warren Trail, at the Buckaloons Recreation Area.

- > Approximate Length: 4.5 miles in Warren County
- > Associated Municipalities: Limestone and Triumph Townships, as well as Tidioute Borough.

WARREN\NORTH WARREN TRAIL

A portion of this trail is active and paved from downtown Warren to North Warren. The proposed section will continue north to Russell and beyond to New York State, passing through Akeley Swamp and State Game Land No. 282. This trail also parallels the Conewango Water Trail.

- > Approximate Length: 12 miles
- > Associated Municipalities: Pine Grove, Glade, and Conewango Townships, as well as the City of Warren.

WASHINGTON TRAIL

This proposed trail follows the route which commemorates George Washington's first military and diplomatic venture in the fall and winter 1753-1754. Today, the route primarily follows major roads. Within Erie County, this trail follows Route 19 from north of Cambridge Springs, Crawford County to Waterford Borough.

- > Approximate Length: 6.8 miles
- > Associated Municipalities: LeBoeuf and Waterford Townships, as well as Waterford Borough.

WEST BRANCH TIONESTA CREEK TRAIL- WARREN COUNTY

This trail connects Hearts Content Scenic Area, in Allegheny National Forest, to Chapman State Park following Forest Route 536, an unimproved forest road that is proposed to be developed as a trail. A possible extension to this proposed trail includes extending the trail along the former Tionesta Valley Railroad grade, connecting Clarendon, Tiona, and Sheffield on its way to Tionesta.

Efforts to develop the first phase of this trail are being pursued by Warren County, PA DCNR, Chapman State Park, and the Allegheny National Forest Service.

- > Approximate Length: 7.5 miles
- > Associated Municipalities: Watson, Cherry Grove, and Pleasant Townships.

YOUNGSVILLE TO WARREN TRAIL- WARREN COUNTY

This trail extends from Warren to Youngsville, along the Allegheny River and Brokenstraw Creek, following an active Allegheny and Eastern Railroad line.

- > Approximate Length: 8.3 miles
- > Associated Municipalities: Brokenstraw and Conewango Townships.

APPENDIX B: PROPOSED WATER TRAIL PROJECT DETAILS

The following section provides project details for all Proposed Water Trail Projects. For any projects that were carried over from the 2009 Greenways Plan, it was assumed that details remained the same unless otherwise indicated by the Steering Committee. Some details, like project length or size, may vary from the data available on the data site.

ALLEGHENY RESERVOIR WATER TRAIL

There is no horsepower restriction on the reservoir; however, the Pennsylvania Fish and Boat Commission has adopted special boating regulations for a number of locations on the reservoir. These areas are better suited to non-motorized boating opportunities than other portions of the reservoir. They include:

Boats are limited to a maximum of 8 miles per hour, and waterskiing is prohibited in the following areas:

- Willow Bay
- Sugar Bay

Boats are limited to slow, no wake in the following areas:

- In the vicinity of camping areas and boat launch areas
- Dew Drop Bay
- Wolf Run Bay
- Hodge Bay, North and South Branch
- Cornplanter Bay
- Billies Bay

The Pennsylvania Fish and Boat Commission, in conjunction with the U.S. Forest Service's Allegheny National Forest, should evaluate opportunities to develop formal water trails on the Allegheny Reservoir.

BEAVER RIVER WATER TRAIL- 23 MILES

This proposed water trail extends through Lawrence and Beaver Counties. It also is an extension of the proposed Shenango River Water Trail as the Beaver River is created by the confluence of the Shenango and Mahoning Rivers just south of the City of New Castle.

Lawrence County completed and adopted "Connections: Linking Lawrence County's Resources through Greenways" in 2008, this plan includes this recommendation and provides a conceptual plan of the proposed water trail.

BROKENSTRAW CREEK WATER TRAIL- 12 MILES

Garland to Youngsville is canoeable during the high water season (December through May). There is a pipeline crossing the creek in Youngsville. It is runnable from as far upstream as the old State Route 6 bridge, near Columbus, but watch for low hanging cables that cross the river between Columbus and Garland. One can continue two miles south to the Buckaloons Recreation area, at the confluence with the Allegheny River.

- Shuttle Points:
 - State Routes 27 and 6 along entire length, from Columbus to Youngsville.
 - Buckaloons National Recreation Area

CONEWANGO CREEK WATER TRAIL

The Conewango Creek is not documented in the “Canoeing Guide to Western Pennsylvania and Northern Western Virginia”. The Conewango Creek Water Trail has been formally recognized as part of the Marden E. Cobb Waterway Trail, in Chautauqua County, New York. It originates near Kennedy, New York and extends 25 miles to the Pennsylvania border, just south of Frewsburg, New York. The Pennsylvania portion of Conewango Creek is locally known as a canoeing resource, but has not formally been identified as such. From the Pennsylvania line, the Conewango Creek extends approximately 10 miles until its confluence with the Allegheny River in the City of Warren.

It is recommended that a water trail along the Pennsylvania segment of Conewango Creek be formalized. From the Pennsylvania line, the Conewango Creek extends approximately 10 miles until its confluence with the Allegheny River in the City of Warren. A Water Trail Guide should be developed, and a wayfinding signage system should be implemented to direct visitors to put in/ take out locations and to direct water trail users to find goods and services they desire along the water trail.

- > Conewango Creek – Kennedy, New York to Pennsylvania State Line – 25 miles
 - Shuttle Points:
 - Route 42, just south of the Southern Tier Expressway. The site is of the stair type and is found just upstream of the bridge.
 - The distance to the next site is approximately 11 miles. The first Frewsburg site is located on the east bank, down stream of the Route 55 bridge. The remains of an old concrete bridge pier will alert you to this first of two pull-outs at Frewsburg. Look for a negotiable, but steep bank on your left as you pass under bridge. There is parking for about four cars at this site.
 - If you proceed downstream 2 miles from the first Frewsburg site, there is a beautiful site on the east bank. Look for a 50-yard wide, gently sloping and grass covered bank on your left as you approach the Route 60 bridge at Frewsburg. Here you will have room for ten vehicles. From this point, it is 4 miles to the county-owned island where you will find a dock and two lean-to's.
 - The end of this Chautauqua County Waterway Trail is located on the west bank about ½ mile below the island. There you will find a multi-level dock and parking for 10 cars.
 - Beyond this point, the Conewango enters the State of Pennsylvania where canoes and kayaks must be registered if they are used at state-maintained launch facilities.
- > Conewango Creek - Ackley to Warren – 9.6 miles
- > During the Warren County Public Input Session, attendees indicated there is a launch located off of State Route 62, in Ackley, and one can take out before the dam in the City of Warren.
 - Shuttle Points:
 - Launch off of State Route 62, Ackley PA
 - Warren School before the dam at East Third Avenue Bridge (second bridge in City)

FRENCH CREEK WATER TRAIL- 74 MILES

French Creek is a designated Pennsylvania Water Trail with French Creek Valley Conservancy designated as manager. French Creek has functioned as a transportation corridor throughout history, a vital resource to the Native American population and as part of George Washington's 1753 campaign.

French Creek Valley Conservancy has created a French Creek Paddling Guide and two French Creek Water Trail maps which are updated regularly; they are available to the public free of charge in print and online.

These maps and guide outline paddling access for French Creek, from Union City Dam in Erie County to its confluence with the Allegheny River at the City of Franklin in Venango County, covering 74 miles. Over this length French Creek winds its way through the towns of Cambridge Springs, Venango, Saegertown, Meadville, Cochranton, Utica and Franklin.

The guide and maps identify fourteen public access points along this route's length. They are approximately located at:

- > Mile 74 Union City Dam
- > Mile 56 Cambridge Springs- John Anselmo Launch (FCVC)
- > Mile 50 Cambridge Springs- PFBC
- > Mile 49 Cambridge Landing (FCVC)
- > Mile 48 Conneauttee Creek
- > Mile 38 Bertram Park
- > Mile 37 Saegertown Access- PFBC
- > Mile 32 Joe Cat Launch (FCVC)
- > Mile 31 Bicentennial Park
- > Mile 26 Wilson Chute- PFBC
- > Mile 22 Shaw's Landing- PFBC
- > Mile 18 Cochranton
- > Mile 10 Utica Access (Western Pennsylvania Conservancy)
- > Mile 0 Franklin Access- PFBC

At this point the French Creek joins the Allegheny River Water Trail.

Proposed expansion of the French Creek Water Trail included the establishment of a public launch near Mile 64 (Route 19/6N)- this is a high priority in order to close a trail gap between Union City and Cambridge Springs. Also of high priority is establishing a public launch near Carlton near Mile 14, between Cochranton and Utica in order to close a trail gap. Other projects include expanding the official Water Trail to the north of the Union City Dam and to the east through Union City on the South Branch of French Creek.

MAHONING RIVER WATER TRAIL- 10 MILES

The proposed Mahoning River Water Trail would begin in Edinburg, Lawrence County, and flow southeast to reach the river's confluence with the Beaver River, just south of New Castle. Access points are proposed in Edinburg, at the Covert Road Bridge in North Beaver Township, and at the confluence of the Mahoning and Beaver Rivers.

Lawrence County completed and adopted "Connections: Linking Lawrence County's Resources through Greenways" in 2008, this plan includes the recommendation for this proposed water trail.

OIL CREEK WATER TRAIL- 20 MILES

- > Oil Creek Township to Oil City. Designated in 2016 as a state water trail.
- > Some sections should only be run at higher than average spring water levels.
- > Old logging dam about 3 miles below Drake Well Museum, run center, difficult in medium or low water, 1.5 foot drop. Ice breakers present below location of State Park Office; use portage trail on left side. Bank cut at portage trail access is small; time canoes accordingly. Alternatively, take out on right of structure and portage around.
- > Additional access points with amenities are needed.
 - Shuttle Points:
 - Drake Well Museum near bike trail access, or at State Route 27 Bridge west of Titusville/ State Route 8 Rynd Farm Bridge, or 0.5 miles upstream at picnic area
 - Alternative, trail access at Petroleum Centre.
 - Access on Route 8 North in Oil City.
 - Water trail users can take out canoes/kayaks at Petroleum Center and ride the OC&T train back to Perry St. Station in Titusville. The train will shuttle canoes/kayaks. Tickets need to be purchased in advance.

PRESQUE ISLE BAY WATER TRAIL

It is recommended that the Erie - Western Pennsylvania Port Authority work with the PA DCNR and with the Pennsylvania Fish and Boat Commission to establish a water trail around Presque Bay.

The 3,718-acre bay is situated between Presque Isle and the City of Erie. There are eleven public boat access points along the Presque Bay, operated by the City of Erie, the Erie Port Authority, and the State Park.

- > Presque Isle State Park - Grave Yard Pond to Grave Yard Pond – 4.0 miles
 - Shuttle Points:
 - Canoe and Boat Rental near Grave Yard Pond

There are a series of six boat landings located throughout the pond's complex. A concessionaire offers, on a seasonal basis, canoe and kayak eco-tours of the ponds from this location as well.

In addition to boating opportunities in the bay, there is an existing water taxi; with service from the bayfront to Presque Isle State Park; with stops at Dobbins Landing, Liberty Park, and the Water Works on Presque Isle.

REDBANK CREEK WATER TRAIL- 54 MILES

In the "Canoeing Guide to Western Pennsylvania and Northern West Virginia," Red Bank Creek is documented as a canoeable stream from Brookville, Jefferson County to its confluence with the Allegheny River at Rimer, in Clarion County, approximately 54 miles.

It is recommended that local partner organizations work with the Pennsylvania Fish and Boat Commission to begin the process of conducting feasibility studies and to begin planning for these water trails.

- > Red Bank Creek – Brookville to Summerville – 10.5 miles, Jefferson County
- > Canoeable early December through May. Do not put in above Brookville, as there is a dangerous drop on the North Fork under U.S. Route 322.
 - Shuttle Points:
 - Junction of Sandy Lick Creek and North Fork Red Bank Creek, left bank
 - At Summerville turn left / east on any road towards the river

- > Summerville to New Bethlehem – 16.5 miles
 - Shuttle Points:
 - Canoeable early December through late May.
 - At Summerville turn left / east on any road towards the river
 - Heathville
 - Mayport
 - River right, above dam in New Bethlehem
- > New Bethlehem to Rimer on the Allegheny River – 27.8 miles
- > Canoeable late November through late May.
 - Shuttle Points:
 - Stream right, below dam at State Route 28/66 Bridge crossing the creek in New Bethlehem
 - Climax
 - St. Charles
 - Lawsonham, immediately below bridge on right
 - Lock and Dam No. 9 on the Allegheny River
 - Lock and Dam No. 9 to Rimer, requires locking through, approach lock from left hand shore, remain clear of barge traffic

SHENANGO RIVER WATER TRAIL- 74.8 MILES

The Shenango River begins at the Pymatuning Reservoir Dam in southern Crawford County and continues for a distance of 74.8 miles to Wampum Borough in southern Lawrence County. If water level is high, tree blocked channels and snags can be dangerous.

The Jamestown Lions Club, working with the municipalities along the Shenango River in Crawford and Mercer Counties, has recently received a grant to complete a Water Trail Feasibility Study for the Shenango River. The study area begins at the southern end of Pymatuning Reservoir and extends south to the Shenango Reservoir. It is anticipated that portions, if not the entire corridor, will provide suitable opportunities for canoeing and kayaking. Therefore, it is recommended that the development of this water trail be a priority in the Northwest Pennsylvania Region. Costs to further plan and develop this proposed water trail will be identified in the feasibility study that is currently in progress.

- > Pymatuning Dam to Greenville – 8.5 miles
 - Shuttle Points:
 - East side of Pymatuning Dam base
 - East bank of River, Main Street Bridge, Greenville Borough
- > Greenville to New Hamburg – 9.5 miles
 - Shuttle Points:
 - East bank of River, Main Street Bridge, Greenville Borough
 - East bank of River, old Bridge Pilings in New Hamburg, near Onion Road
- > New Hamburg to Sharpsville Dam
 - Shuttle Points:
 - East bank of River, old Bridge Pilings in New Hamburg, near Onion Road
 - U.S. Army Corps of Engineers, Shenango Reservoir, Mahaney Recreation Area at dam

- > Sharpsville Dam to West Middlesex – 12.0 miles
- > Class I rapids, two dams, and a waterfall are located in this section. Portage both dams on the left bank; the waterfall is twenty yards below the second dam. Portage far enough to bypass the waterfall and the outlet pipe on the right bank before returning to the river.
 - Shuttle Points:
 - River right, U.S. Army Corps of Engineers, Shenango Reservoir, Mahaney Recreation Area, at base of dam
 - North Main Street Bridge in West Middlesex, left bank below bridge
- > West Middlesex to Harbor Bridge – 13.8 miles
- > Beware of small rapids at small island about 0.2 miles below Pulaski Road bridge.
 - Shuttle Points:
 - North Main Street Bridge in West Middlesex, left bank below bridge
 - Harbor Edinburg Road Bridge, left bank upstream of bridge
- > Harbor Bridge to Wampum – 14.5 miles
- > Rapids are downstream of New Castle. Shenango and Mahoning Rivers join below New Castle and continue to confluence with Beaver River.
 - Shuttle Points:
 - Harbor Edinburg Road Bridge, left bank upstream of bridge
 - Wampum Road Bridge over Beaver River, left bank just below bridge

TIONESTA CREEK WATER TRAIL- 40 MILES

Based on the inventory and analysis conducted for this study, it is recommended that local partners be identified to complete a feasibility study to evaluate the potential of establishing a water trail along Tionesta Creek, through Warren and Forest Counties.

- > Sheffield to Lynch – 9.0 Miles
 - Shuttle Points:
 - Near junction of State Route 666 and State Route 948
 - Lynch Gauge
- > Lynch to Kellettsville – 15.0 miles
- > Kellettsville to Nebraska Bridge – 11.4 miles
- > Tionesta Reservoir Below Nebraska Bridge – 5.5 miles