CHEMUNG RIVER GREENWAY
FEASIBILITY STUDY

OCTOBER 2024

Three Rivers
DEVELOPMENT CORPORATION

LaBella
Powered by partnership.

ACKNOWLEDGEMENTS

The Chemung River Greenway Feasibility Study was prepared for Three Rivers Development Corporation with funding support from the Appalachian Regional Commission. The report was prepared by LaBella Associates, DPC. The project team would like to thank the following parties:

Three Rivers Development Foundation
Kamala Keeley, President
Valory Keough, Specialist

Steering Committee
Fred Arcuri, Corning Incorporated
Jill Koski, Southern Tier Economic Growth
Christina Oldroyd, Finger Lakes Wine Country
Chelsea Robertson, Southern Tier Central
Sheldon Smith, Harter Secrest & Emery

Land Acknowledgment
Three Rivers Development Corporation recognizes that the Chemung River Greenway exists on the traditional homelands of the Onöndowa'ga:', Susquehannock, and Ho-de-no-sau-nee-ga. We hope to honor Indigenous peoples' ongoing relationship with the land by providing increased opportunities for connection to and preservation of the natural environment.

Design Acknowledgment
A Special Thank You to Travis Cain of **Brave World Media** for creating the Chemung River Greenway message and logo, designing the vision.

Additional Information
This Plan provides an overview of the Chemung River Greenway, including maps identifying the entire route. Organizations and individuals seeking additional information can address questions to:

Three Rivers
DEVELOPMENT CORPORATION

Three Rivers Development Foundation
c/o Chemung River Greenway
1 West Market Street, Suite 701
Corning, NY 14830
(607) 368-9732
https://soflx.com/chemung-river-greenway/

Stakeholders
Dan Mandell, City of Elmira
Ann Gerould, Town of Elmira
Lee Giammichele, Town of Big Flats
Robert Switala, Town of Big Flats
Mark Ryckman, City of Corning
Jennifer Miller, City of Corning
Jennifer Mullen, Town of Corning
Mike Brenning, Town of Corning
Jim Thomas, Village of South Corning
Melissa Greenthal, Town of Erwin
Kristen Brewer, Town of Erwin
Kevin Meindl, Chemung County Planning
Andy Avery, Chemung County Transportation
Elmira-Chemung Transportation Council
Shawnna Clerk, USDA Big Flats
James Lynch, NYSDEC
Kelly Raab, NYSDEC
Robin Phenes, NYSDEC
Laura DiBetta, NYSDEC
Paul VerValin, Guthrie Health
Garret Callahan, Wegmans
Kevin Peterson, Explore Steuben
Elizabeth Zilinski, Friends of the Chemung River
Jim Pfifer, Friends of Chemung River
Tara Escudero, Elmira Community Cycle
Karl Schwesinger, Elmira Community Cycle
Jack and Karen Chaney, Southern Tier Bicycle League
Frank Spena, Rail Historian
Alison Herman, Chemung, Schuyler, and Steuben Bicycle Advisory Council and Pedestrian Advisory Council
Alison Agresta, The Nature Conservancy
Max Heitner, Finger Lakes Land Trust
Ken Roberts, Arnot Health
Anders Tomson, Chemung Canal Trust Company
Robert Meikle, Big Horn Velo
Russ Nelson, Friends of the Catharine Valley Trail
Sheila Sutton, Wineglass Marathon
Wendy Walsh, Upper Susquehanna Coalition – Tioga County Soil & Water
Bill Mullaney, Corning Community College
Michelle Caulfield, Corning-Painted Post Area School District
Tim Douglas, Horseheads School District
Hillary Austin, Elmira City School District
Taylor Crowe, Wheels Unlimited
Coleen Fabrizi, Gaffer District
Officer DuBois, City of Corning PD
Colleen Coro, Corning Area Chamber of Commerce

TABLE OF CONTENTS

EXECUTIVE SUMMARY 4

CHEMUNG RIVER GREENWAY BACKGROUND 8

CREATING THE CHEMUNG RIVER GREENWAY 40

PUBLIC AND STAKEHOLDER ENGAGEMENT 48

POTENTIAL ROUTES 58

FINAL PROJECT AREA TRAIL SEGMENTS 60
- ELMIRA AREA SEGMENTS 64
- BIG FLATS AREA SEGMENTS 80
- CORNING AREA SEGMENTS 108
- ERWIN AREA SEGMENTS 130

TRAILS, TRAILHEADS, & AMENITIES 144

IMPLEMENTATION & MAINTENANCE PLANS 154

FUNDING 160

SUMMARY OF PHASING AND COST ESTIMATES 168

APPENDICES 176

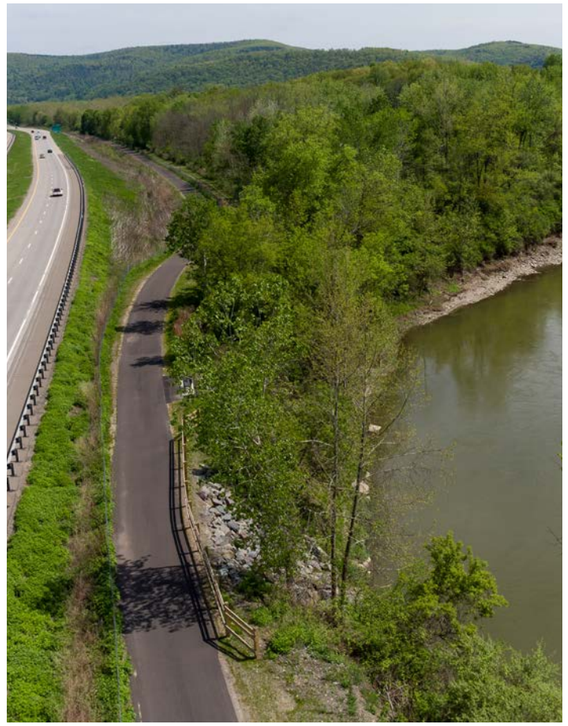
EXECUTIVE SUMMARY

INTRODUCTION

The Chemung River Greenway is a 40-mile pedestrian and bicycle multi-use trail proposed for Chemung and Steuben counties, New York. The trail will provide residents and visitors with opportunities for recreation and active transportation. The proposed greenway links communities with natural preserves, critical facilities, schools, recreational facilities, and tourism assets.

The primary purpose of this feasibility study is to evaluate the potential development of a community-supported, multi-use trail within Steuben and Chemung Counties, connecting the City of Elmira and the City of Corning, with extension to conservation areas in Erwin and Lindley. The plan will:

1. Evaluate benefits to health and well-being, safety, transportation, environment, public involvement, and economy;
2. Identify existing conditions and best practices;
3. Explore potential routes and connections; and
4. Provide recommendations and an implementation strategy.



Three Rivers Development Foundation is a subordinate organization under Three Rivers Development Corporation. Three Rivers Development Corporation is recognized as an effective private sector vehicle that leads, partners, collaborates and advocates for the three-county region of Steuben, Chemung and Schuyler counties in New York's Southern Tier. The mission of Three Rivers Development Corporation is "To facilitate and drive community and economic initiatives and collaborations that grow the regional economy and enhance the overall quality of life." In support of the mission, Three Rivers Development works with several area businesses, economic development groups, chambers of commerce, cities, municipalities, and more to realize synergies and achieve common goals. The Strategic Priorities include Workforce, Quality of Life, Infrastructure, and Businesses.

Three Rivers caused to be created the Southern Finger Lakes Quality of Life Messaging report published May 2021. The report states,

"For individuals interested in relocation and motivated by quality of life considerations, the Southern Finger Lakes is the place to be. Nestled in the hills and valleys of Upstate New York, The Southern Finger Lakes offers a relaxed pace of life, an environment that promotes a healthier mindset, lower housing costs and less time spent commuting, which means more time, energy and resources to prioritize what is really important. The Southern Finger Lakes is also a vacation destination, which means access to the same amazing experiences others travel for, are in your backyard everyday. The Southern Finger Lakes is ideally situated for those who want to be in proximity to large metropolitan areas, but live a life made far richer by connecting to nature and community, making a difference in the lives of their neighbors and taking advantage of the opportunity to develop a lifestyle that ideally suits who they are."

Three Rivers Development Corporation understands the long-standing regional desire for more recreational opportunities and the associated workforce recruitment and retention, and small scale economic impact, thus initiating the Chemung River Greenway project.

The Feasibility Study builds on the findings of the Chemung River Greenway Existing Conditions Report, first published in March 2024, and revised October 2024.

STUDY AREA

The study area at the start of the project proposed a 30-mile trail between the City of Elmira and the City of Corning, and was extended to connect to the significant transfer of the Bad Bear Hill Recreation Area to the Finger Lakes Land Trust. The route is generally intended to follow the valley along the Chemung River and its tributaries. The corridor runs through two-counties, two-cities, 8 towns, and 3 villages.

PROPOSED CHEMUNG RIVER GREENWAY ROUTE

The proposed trail route for the Chemung River Greenway begins at the Lackawanna Trail in the City of Elmira and primarily travels west along the Chemung River Valley to the Town of Big Flats. In Big Flats, the trail connects to the existing Big Flats Linear Trail at Sperr Park and extends this popular trail to the west. The trail then utilizes the existing Bridge Street pedestrian walkway to cross Interstate I86 and travels west around Beverly to the Corning Guthrie Hospital. The route then proposes development of a new buffered bike lane or separated sidepath to connect the hospital to the City of Corning at Denison Park. This reach often has pedestrians walking along the narrow shoulder presenting safety challenges that can be alleviated with the construction of the new route. From Denison Park in Corning, the route includes options on the north and south of the Chemung River connecting parks, businesses, and tourism assets. From Hillvue and Williams Park, the route travels north to the Village of Riverside and Village of Painted Post existing multi-use trail. A spur to Stewart Park is provided to provide greater safety and a formalized pedestrian route along the inactive railroad, this segment will connect housing areas, community services, and recreation areas to enhance resident connection. Continuing west from the existing Painted Post trail, the route will advance to the Corning Painted Post Middle School and onto Kinsella Park in the Town of Erwin, with connection to the existing routes around the Corning Incorporated Sullivan Park. The route then utilizes the scenic Gang Mills Flood Protection Project flood protection lands to create a route through the Town and to the First Responders Honors Park. The route continues west along Jones Road, a very low volume roadway often used by the community for walking and recreation and will provide connection to the Corning Incorporated Erwin Diesel Plant and west and south to the Village of Addison, Town of Thurston, and Town of Lindley with the final destinations of McCarthy State Forest and the Finger Lakes Land Trust Bad Bear Hill Recreation Area. The entire 53-mile-long route has been broken up into 23 suggested segments.

The actionable recommended alternatives and implementation strategies include 23 recommend segments with 20 proposed trailheads. The segments were divided based on factors including mileage, desirable trailheads, connection to existing routes and recreational assets. The route includes approximately 29 miles of on or near roadway construction including: shared roadway, bike boulevards, marked bike lanes, and buffered sidepaths. The route proposes approximately 23 miles of dedicated shared use paths away from roadways.

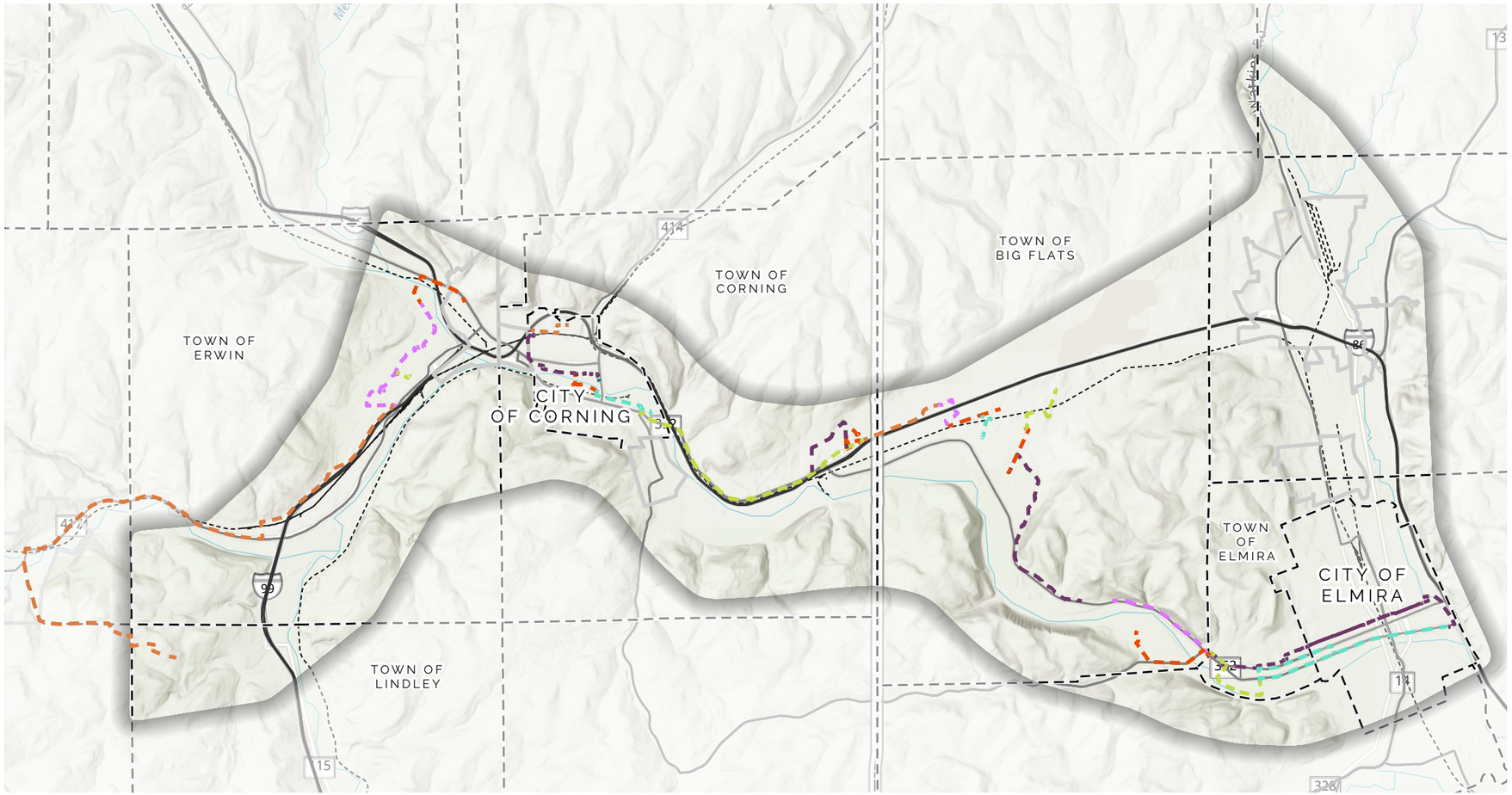
RECOMMENDATIONS

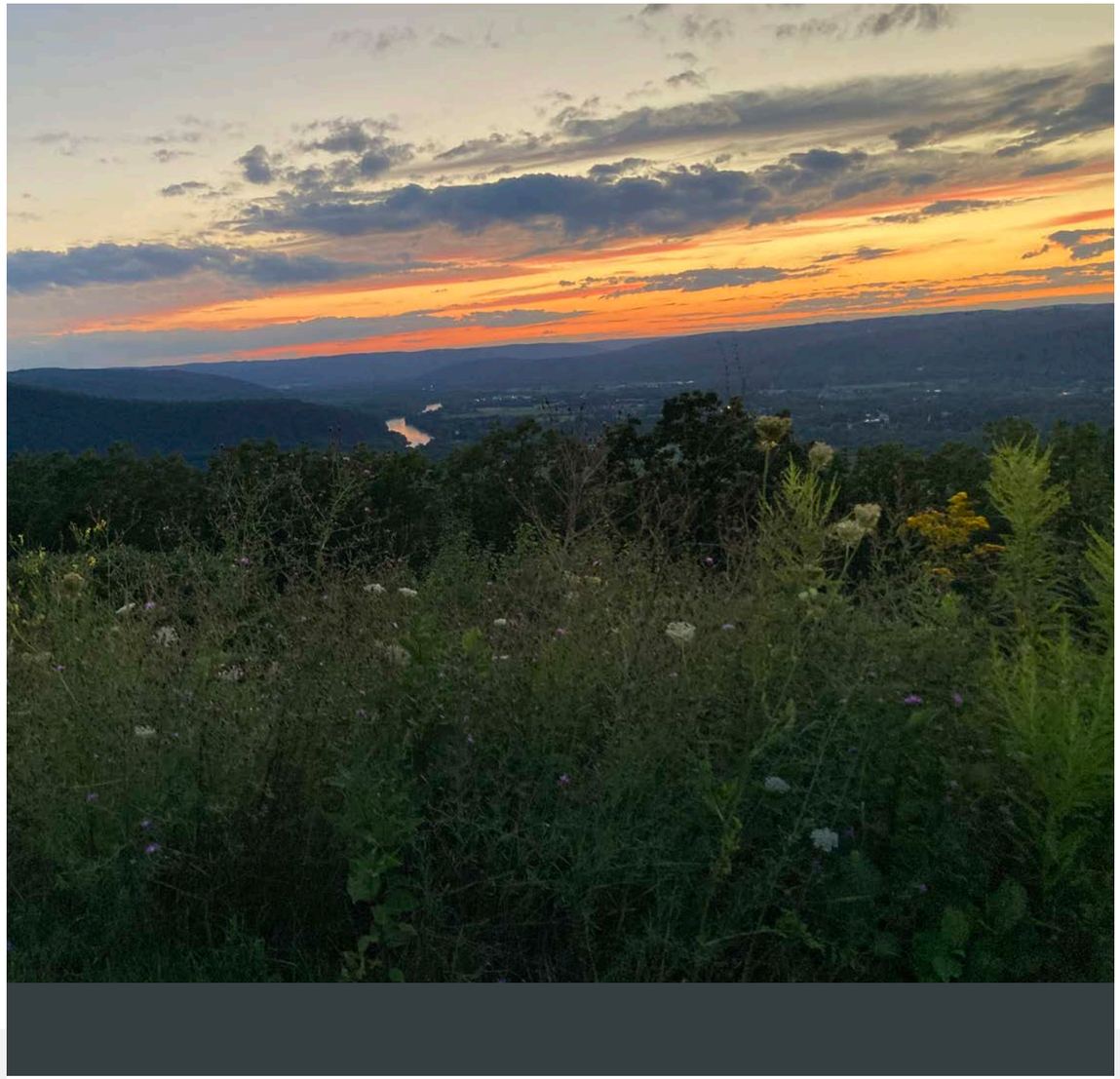
The route is proposed to be utilized by pedestrians, cyclists, and mobility-assisted devices. There are two segments that have elevations that do not align with the conditions of mobility-assisted devices: Segment 18-A between the Town of Erwin Honors Park and the Bad Bear Hill Finger Lakes Land Trust and the former trolley line in the Town of Big Flats and Town of Erwin may result in some areas with steep slopes, further design is required.

The recommended advancement of the project is to first seek a federal grant for the entirety of the route with all municipalities engaged. From a constructability perspective, the most challenging segments due to cost, smart growth, and flood considerations include Segment 1-C along the Chemung River, Segment 2-A along the trolley trail, Segment 4-A along Sing Sing Creek, Segment 6-A crossing over the active railway on a proposed new bridge, and Segment 17-A through the Gang Mills Flood Protection Project area. Securing community buy-in, landowner agreements, and state and federal funding are critical to advancing the project. Based on feedback from landowners and more detailed investigation of sites, some routes may be altered to create more feasible routes.

IMPLEMENTATION

Short term actions include municipal engagement, landowner engagement, creation of a steering committee and governance structure that will manage the greenway, and solicitation of capital improvement grant funds. Long term actions include completing any gaps in the trail development and construction, and ongoing operation and maintenance.





CHEMUNG RIVER GREENWAY BACKGROUND

PROJECT DESCRIPTION

PURPOSE AND OBJECTIVES

The purpose of the feasibility study is to guide decision making and future allocation of funding toward a proposed development of a multi-use trail between the cities of Corning and Elmira with extension to conservation areas in the Town of Erwin and Town of Lindley near the Pennsylvania border. The feasibility study evaluates the benefits to health and well-being, safety, transportation, environment, public involvement, and economy. It identifies existing conditions and best practices, explores potential routes, connections and costs, and provides recommendations and an implementation strategy.

The goal of the trail is to provide a continuous and safe multi-modal facility, expand upon existing regional trail networks, provide new alternative transportation opportunities for residents, businesses, and visitors, spur economic development, and improve the quality of life in Chemung and Steuben Counties.

PROJECT DESCRIPTION

This study evaluates the feasibility of a community-supported, multi-use trail connection between the City of Elmira and the City of Corning with extension west to the Towns of Erwin and Lindley, NY. The proposed study will examine the benefits of an approximately 40-mile paved and single-track trail with targeted amenities along the Chemung River. The study includes two deliverables:

Existing Conditions Report – published in June 2024, and revised in October 2024.

- Evaluating benefits to health and well-being, safety, transportation, environment, public involvement, and economy; and
- Identifying existing conditions and best practices.

Final Feasibility Study – contained herein

- Exploring potential alternative routes and connections; and
- Providing recommendations and an implementation strategy.

Collaborating with the Chemung River Greenway Steering Committee, community leaders, government and nonprofit stakeholders, and the public, the project documents a shared vision for the future of the Chemung River Greenway multi-use trail. This actionable implementation plan is developed after intensively studying the region, regional assets, and identification of segments with consideration of construction feasibility and benefit to the community.

The goals of the feasibility study include:

- Provide a strategy to develop multi-use transportation infrastructure between Corning and Elmira to expand opportunities for equitable access in the urban areas of highest need, in July of 2024 the project area was extended west and south to the Towns of Erwin and Lindley to enable connection to the significant conservation acquisition of 990-acre Bad Bear Hill property adjacent to the McCarthy Hill State Forest.
- Provide connectivity with existing trails to reach more residents, provide healthy outdoor recreation, and promote active lifestyles.
- Create a destination for tourism and promote economic gains through patronizing trailside businesses or trail-related needs.
- Environmental gains through increased engagement, alternate transportation, and supporting the New York State and the Southern Tier Region's transition from fossil fuels.
- Connect downtowns and regional businesses with greenways to foster retention and enhance workforce recruitment.

PROJECT STUDY AREA

The feasibility study project boundary area is located within the Southern Tier of New York, geographically situated near the state border with Pennsylvania. The region includes the natural beauty of lakes and rivers, breathtaking views, and charming communities. The study area is within the Southern Finger Lakes region in Steuben and Chemung Counties.

The project area includes portions of the Finger Lakes Trail system, over 950 miles of footpath hiking trails stretching from the Allegheny National Forest and Niagara Region east to the Catskills and overlaps with the Great Eastern Trail south of Corning. The project area includes the following multi-use trails: Painted Post and Riverside Trail, Big Flats Linear Trail near Sperr Park, the Lackawanna Trail, and the Catharine Valley Trail.

Chemung River Greenway, project area follows the dominant feature in the region, the Chemung River and its tributaries. The Chemung River originates at the confluence of the Canisteo, Tioga, and Cohocton Rivers. The Chemung River watershed encompasses 2,600 square miles and is a western tributary of the Susquehanna River which contributes to the Chesapeake Bay watershed.

The Chemung River watershed supports more than 135,822 people who live, work, and play within its boundaries. Dominant land use in the Chemung River watershed, as evaluated near Elmira, are comprised of 60% forest, 30% agriculture, 7% developed, and the remaining uses include wetlands (2%), grasslands (1%), and water (0.6%).

The project area is further defined by the steep slopes and ravines gouged out by glaciers and further carved by rushing waters over the past 10,000 years. The underlying geology of the area is approximately 80% shale and 20% sandstone. The project area is bordered on the north and south by steep slopes which provide scenic beauty and constrain the development of a trail to the low-lying valley.

Figure 1 - Municipalities Within the Project Study Area

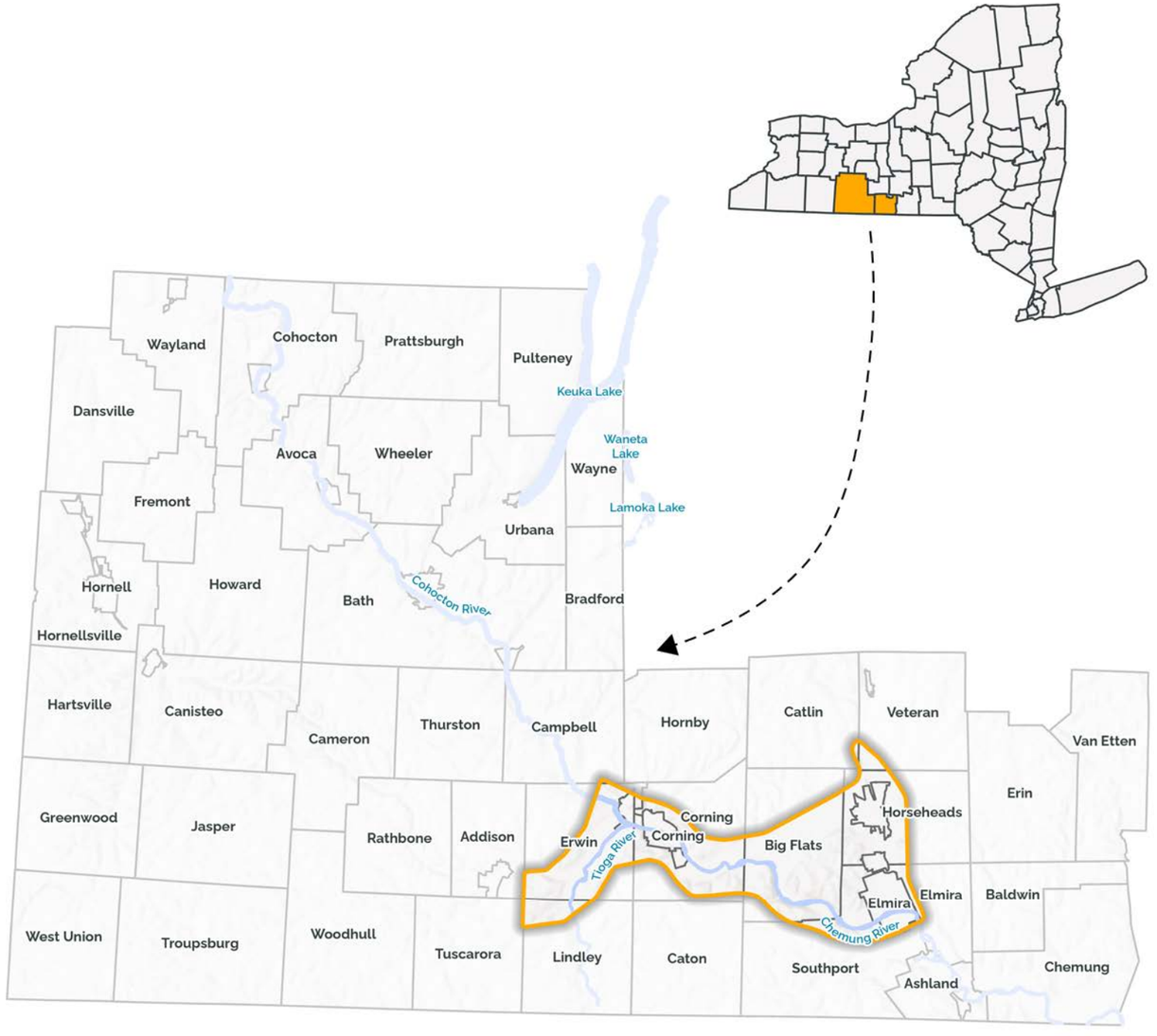


Figure 2 - Chemung River Watershed Profile

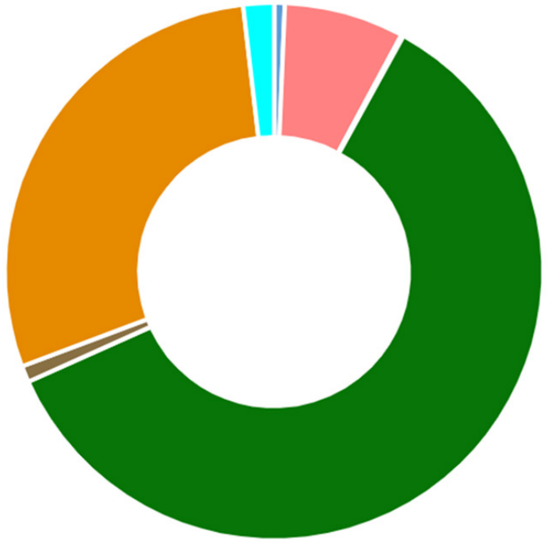
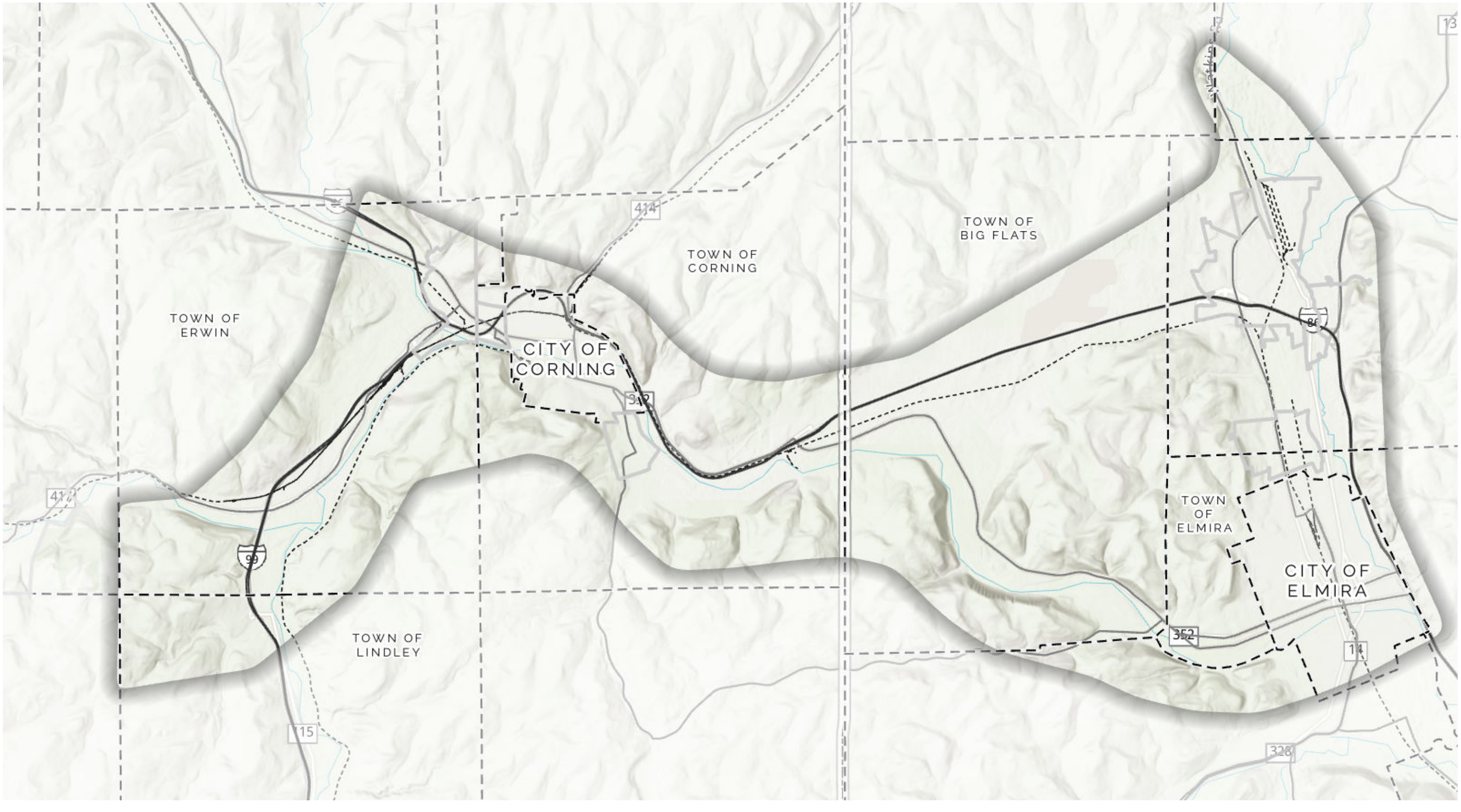


Figure 3 - Chemung River Greenway Study Area



MAPPING METHODOLOGY

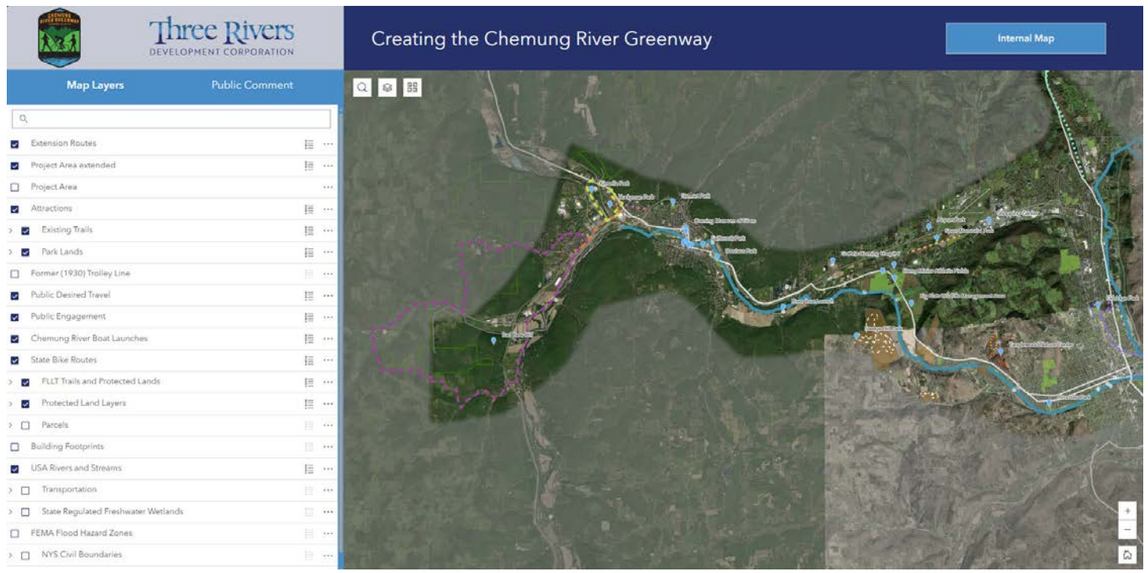
In addition to the trail mapping that was sourced from previous planning documents an extensive existing conditions GIS database was developed for the project. The database mapping includes existing conditions, existing trails, currently proposed trails, and newly proposed trails. This process generally included the methodology detailed below.

Mapping of Existing Conditions

Numerous datasets from several organizations were utilized in this project to create the base data for planning of future trails. Most data were obtained from the NYS GIS Clearinghouse. These data layers were used in combination to both provide background representation on the maps, and to determine where there may be constraints for trail development, as well as conversely where trail development may be most feasible.

- Data from the Clearinghouse included NYSDEC wetlands, surface water, streams, roads, rail lines, ortho imagery and protected lands.
- Additional protected lands data were obtained from The Nature Conservancy, Finger Lakes Land Trust.
- Tax parcel data was obtained from Steuben and Chemung Counties.
- Additional wetland data was obtained from the USFWS.
- Elevation data was obtained from the USGS.
- Socioeconomic data, such as attractions, was manually collected via Google Maps and local knowledge.
- The Trolley Line data was manually created and informed by D.L. Miller & Co (1904).
- Trail and forest land data from Steuben County GIS
- Land cover and agricultural district data were obtained from Cornell University Geospatial Information Repository.
- Zoning data and boat launch data provided by Southern Tier Central .
- Levee data obtained from Esri US Federal Data via the Living Atlas.
- Transportation, Building Footprints, Rivers and Streams data sourced through Esri Living Atlas
- Bike route data obtained from NYSDOT and NYS GIS Clearinghouse.

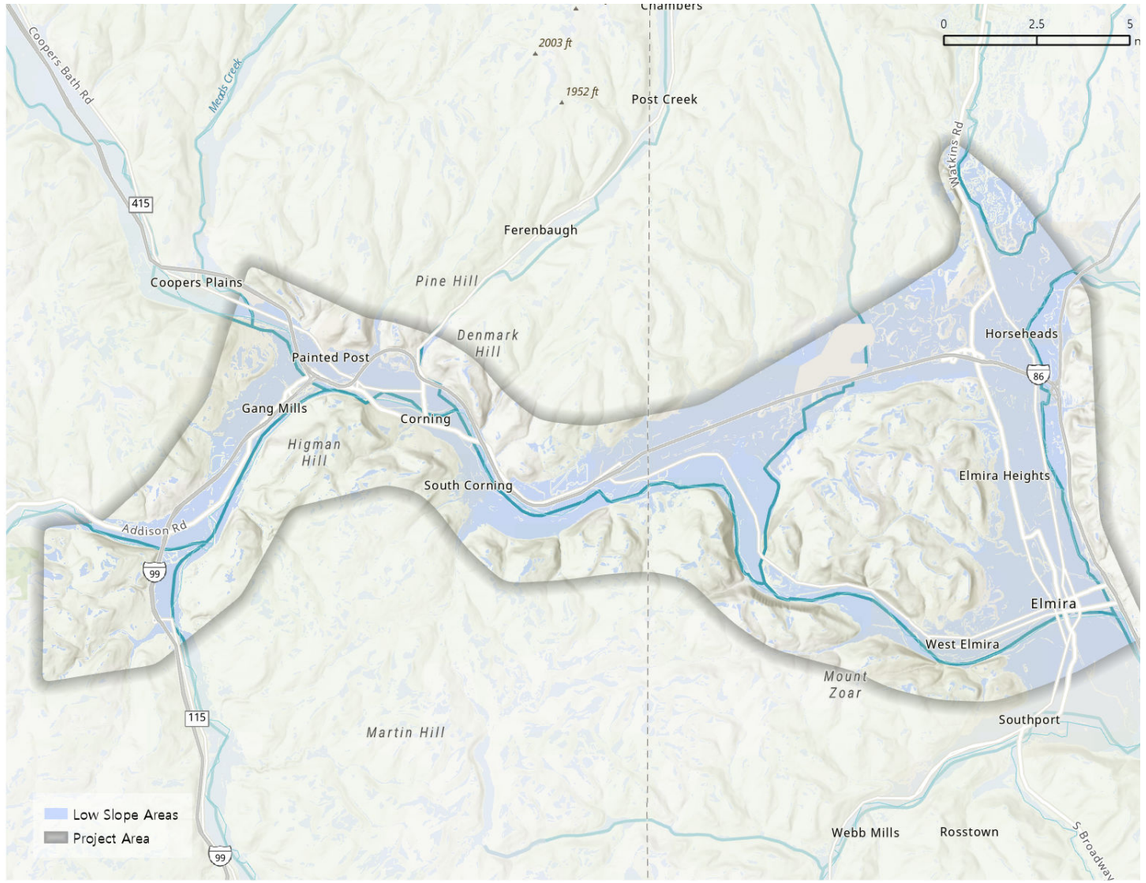
Figure 4 - Chemung River Greenway Mapping Tool



Site Suitability Analysis

A site suitability analysis for the Chemung River area was conducted to consider high-potential routes. This involved ingesting relevant social and physical data layers, assigning them weights or value, and performing an overlay. The resultant map surface reflects areas of high and low value, corresponding with most to least suitable. This begets valuable information for potential trail corridors with consideration for both social and environmental constraints. Please refer to the Chemung River Greenway Existing Conditions Report, October 2024 for additional site suitability mapping including attractions, large parcels, and low slope areas.

Figure 5 - Site Suitability Analysis, Low Slope Areas



CONSTRAINTS AND OPPORTUNITIES

IMPORTANCE OF KNOWING EXISTING SITE CONDITIONS

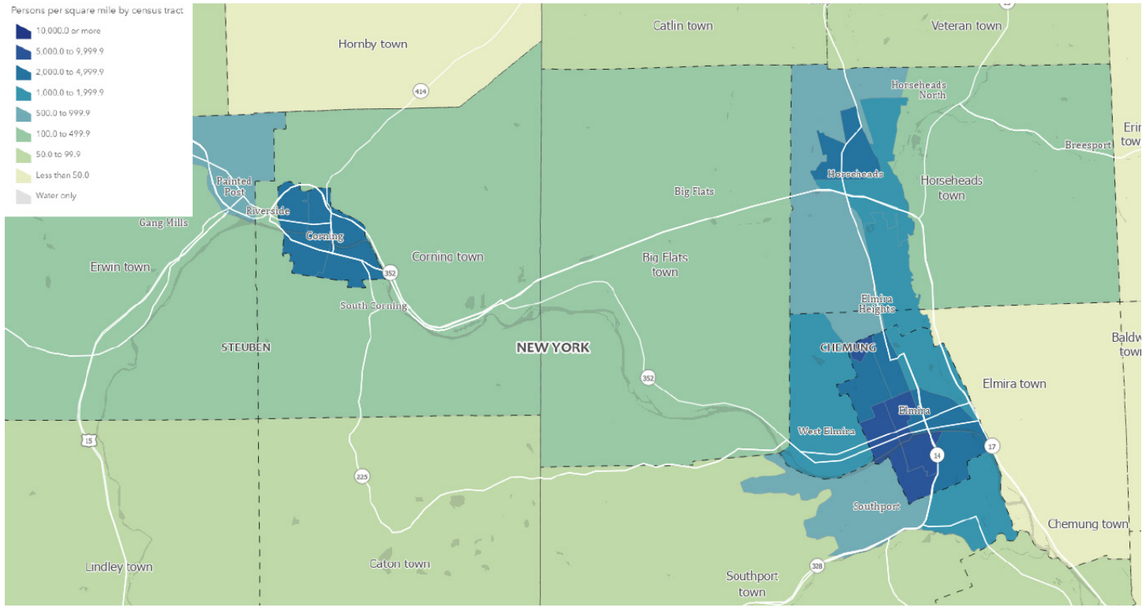
Site conditions of the area have an array of opportunities and challenges. These conditions build upon the Chemung River Greenway Existing Conditions Report, updated October 2024, and were gathered through site investigations, stakeholder input, Geographic Information System (GIS) analysis. Early identification of natural and built environment constraints and opportunities can aid in understanding route feasibility, cost estimation, and the degree of required permitting.

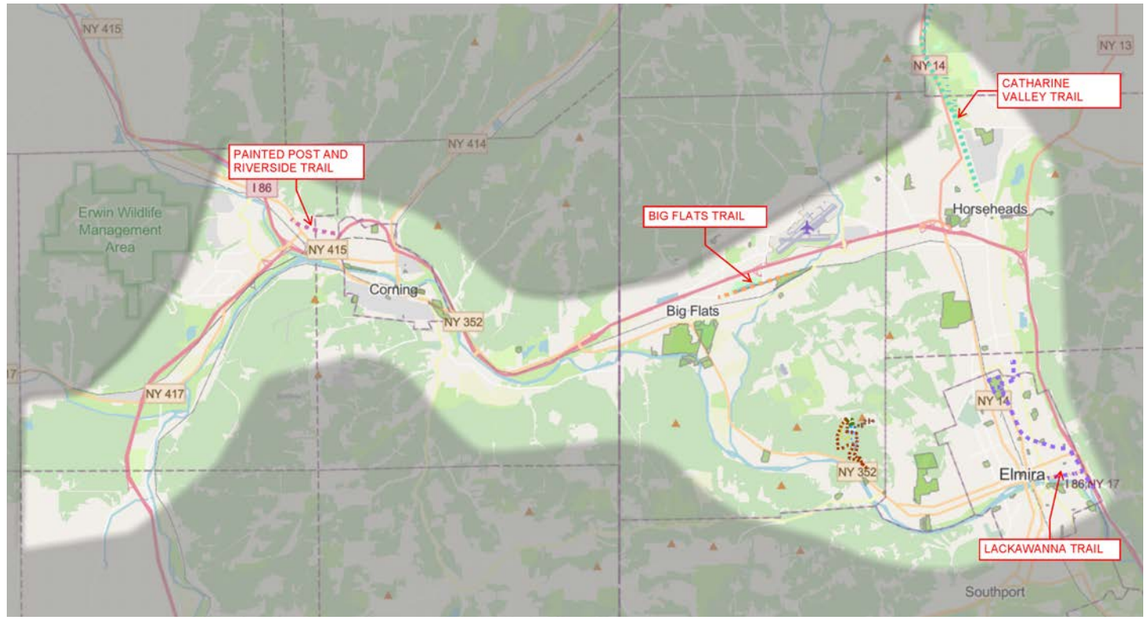
PEOPLE AND THE BUILT ENVIRONMENT

Proximity to Populations

Population density along the potential trail corridor was considered to achieve routes with the greatest impact. The City of Elmira has the highest population density in the project area with a population density of 7,933 persons per square mile (census tract 36015000300), the second highest population density is the City of Corning. Within the project area, the lowest population density is 51.4 persons per square mile (census tract 36101963000) in Lindley.

Figure 6 - Demographic Census Data





AREA EXISTING LINEAR TRAILS

Catharine Valley Trail

The Catharine Valley Trail is a 13-mile asphalt and crushed stone trail that runs through Chemung and Schuyler counties. The trail follows the Chemung Barge Canal towpath and sections of the abandoned Northern Central Rail lines. The trail is ideal for cycling, hiking, snowshoeing, and cross-country skiing. This trail ranges from downtown Watkins Glen to Horseheads, connecting the communities of Watkins Glen, Montour Falls, Pine Valley, and Horseheads. The trail is equipped with mile markers, several benches, picnic tables, and grills. The entire trail is ADA compliant. There are nearby attractions that are accessible from the trail, including the Watkins Glen State Park and the Queen Catharine Marsh.
There are two restrooms located on the trail. Parking is available at the northern end waterfront and the southern end at Mark Twain State Park. The trail is maintained and operated by NYS Office of Parks, Recreation and Historic Preservation (OPRHP), The Friends of the Catharine Valley Trail are a volunteer group that supports the trail with planned events, clean ups, and trail maintenance as well.

Lackawanna Trail

The Lackawanna Trail is an 8.5-mile asphalt trail that runs from Eldridge Park in the City of Elmira to the Lowman Crossover in the Town of Ashland. The trail is ideal for cycling, walking, jogging, and cross-country skiing, and snowshoeing. This trail passes through residential, industrial, and business-zoned districts in the City of Elmira. The trail has been extended from Eldridge Park to Lake Street in the City of Elmira, with a proposed extension north toward McCanns Boulevard. The trail is owned by the New York State Department of Transportation (NYSDOT). The City of Elmira maintains the western portion of the trail, while Chemung County is responsible for maintaining the eastern portion. There are currently no restroom facilities along the trial. Parking and trail access is located at Eldridge Park and the City of Elmira-owned lot located on East Water Street. There is a smaller parking lot located at the western end of the trail.

Big Flats Linear Trail

The Big Flats Trail is a 3.5-mile linear asphalt and crushed gravel trail that begins in Sperr Memorial Park in the Town of Big Flats. The trail is ideal for cycling, walking, and running. There are parking areas located on the west off of Maple Street and a second east off of Kahler Road. The parking area at Kahler Road entrance is ADA accessible. The trail includes benches, garbage collection bins, dog walking amenities, and some exercise stations. The adjacent Sperr Memorial Park includes playground, pavilion, viewing platform, information kiosks, grill, benches, and a memorial to Trooper Andrew Sperr.

Riverside and Painted Post Trail

The Riverside and Painted Post Trail is a 1.1-mile asphalt trail that runs from Craig Park in Painted Post to the intersection of Western Lane and Cutler Avenue in the City of Corning. Painted Post Trail connects schools, playgrounds, other trails, and residential neighborhoods west of Corning. Parking for the trail can be found at the trailhead in Craig Park. The park is utilized for various community events, most notably the Wine Glass Marathon, which takes place annually and attracts 6,500 runners annually.

New York Susquehanna Basin Water Trail

Reaching from the Otsego Lake headwaters in Cooperstown, the Susquehanna River flows southwest to the confluence with the Chemung River and continues south through Pennsylvania and Maryland to the Chesapeake Bay. The New York Susquehanna Basin Water Trail includes 190 miles of river across eight counties – Steuben, Otsego, Chenango, Broome, Tioga, Chemung, Cortland, and Delaware. The Water Trail will promote opportunities to paddle, fish, and enjoy the beauty along the trail's waterways and spur environmental stewardship and vibrant economic growth. The Water Trail includes the Chemung River in Steuben County and Chemung County, and will provide connection to nature, parks, and community assets. Through visioning workshops and working meetings, stakeholders from communities across the trail are joining to raise awareness and encourage healthy and responsible recreation.

Table 1 - Project Area River Access Points

Boat Launch	Waterbody	Municipality
Grove Street	Chemung	Elmira
Fitch's Bridge	Chemung	Elmira
Senator William T. Smith	Chemung	Big Flats
Bottcher's Landing	Chemung	Big Flats
River Road	Chemung	Corning
Conhocton Street	Chemung	Corning
Kinsella Park	Cohocton	Erwin
Mulholland Road	Tioga	Lindley

Chemung River Greenway Project Area River Access

The project area includes boat launches maintained through NYS DEC and municipal partnerships to provide access to the waterways. The boat launches include a variety of amenities including parking, pavilions, benches, informational signage, and anticipated improvements include ADA accessible small craft boat launches.

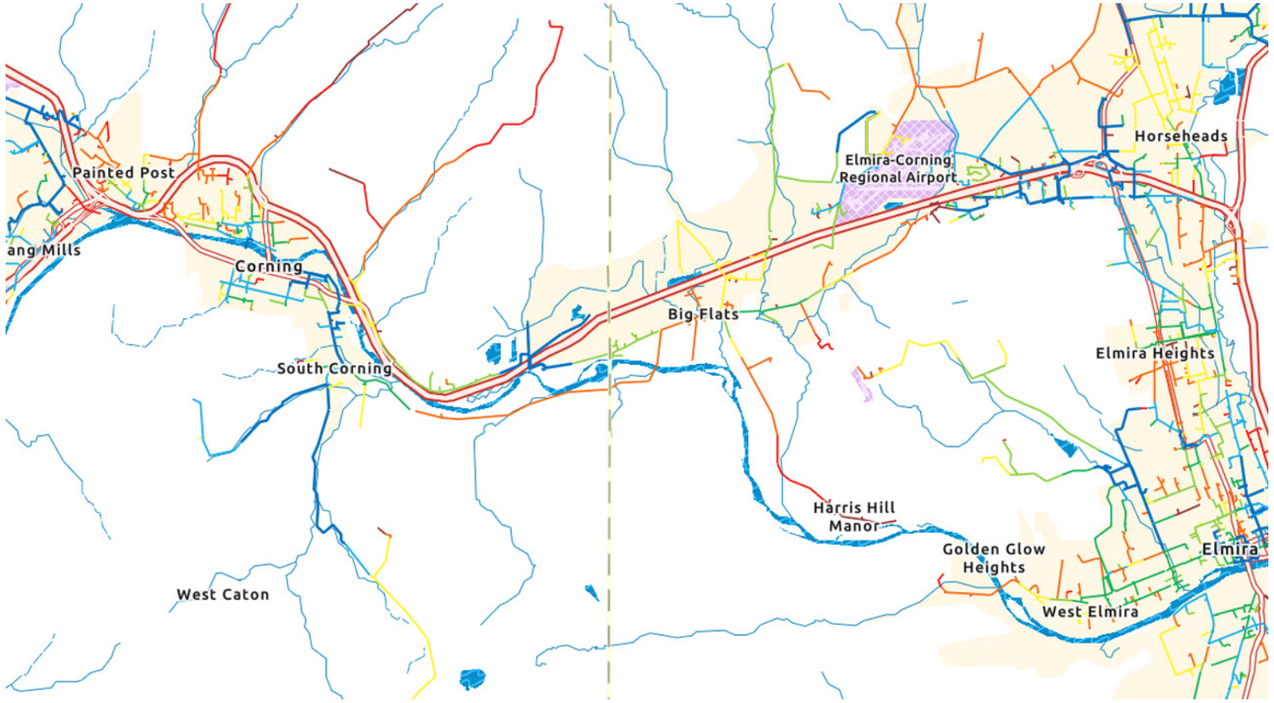
Local organizations including the nonprofit Friends of the Chemung River Watershed are dedicated to protecting and improving the Chemung River and its tributaries and riverside trails in Steuben and Chemung counties in New York and Bradford County Pennsylvania. The Friends of the Chemung River Watershed aspires to be the community's connection for everything related to the Chemung River, its tributaries, and the trails and grounds surrounding the river. The Chemung River is at the center of regional recreation for guided paddles, fishing, riverside hikes, cross-country skiing, bird watching, nature photography, and river events and programs.

Utility Corridors

The study area has a combination of electric transmission and distribution lines and equipment, communication lines, utility towers, natural gas lines and wells, municipal water wells and distribution lines, and sewer infrastructure. In the project area, the Big Flats Linear Trail includes Chemung County Sewer District sewer infrastructure below portions of the trail. The collaboration between the Town of Big Flats and Chemung County to utilize the trail for both recreation and public service is an example of a regional trail co-existing with a utility. Sections of the Catharine Valley Trail also share corridors with the regional Catharine Valley Water Reclamation Facility. The nearby Black Diamond Trail in Tompkins County shares infrastructure with the NYSEG electric utility and has established operations to allow for sections of the trail to be protected with safety barriers during routine maintenance.

The Albany Hudson Electric Trail is a former electric trolley rail corridor now owned by National Grid. Prior to construction of the trail the utility had difficulty accessing utility poles for maintenance due to vegetation and natural barriers that required new bridge construction. The trail posts temporary closure notices to alert users that sections of the trail may be closed during tree trimming around utility lines or maintenance. Trail users encountering 'Trail Closed' signage need to turn around and follow local roads to detour around specific trail closures.

Figure 7 - Electric Utility Corridors



The Ithaca area Black Diamond Trail with electric utility lines are owned and operated by NYSEG.

An opportunity for trail development is along current and former utility corridors; however, the use of utility corridors needs to ensure that the trail use can safely coexist with the corridor's primary use. A utility company may have concerns regarding liability or operations such that the recreational use doesn't impede the ability of the utility company to provide principal services. The long stretches of utility corridors, while attractive, can have complicated ownership and easements. Some corridors are owned by the utility company, while others use easements along the property for routing. The existing utility easement may be specific to the use of the utility and may require transfer or addition of a recreational easement along the corridor. Some utility corridors while they include long uninterrupted corridors, may also have significant trail development constraints including wetlands, stream crossings, and steep grades. Another drawback could be that the utility corridor lacks aesthetic quality due to interrupted views by utility poles or other equipment. Utility easements are sometimes utilized to provide access to significant viewpoints on a limited spur connection, short sections of shared corridors may be easier to negotiate and enable the utility easement to maintain control while not blocking the main trail thoroughfare of a greenway.

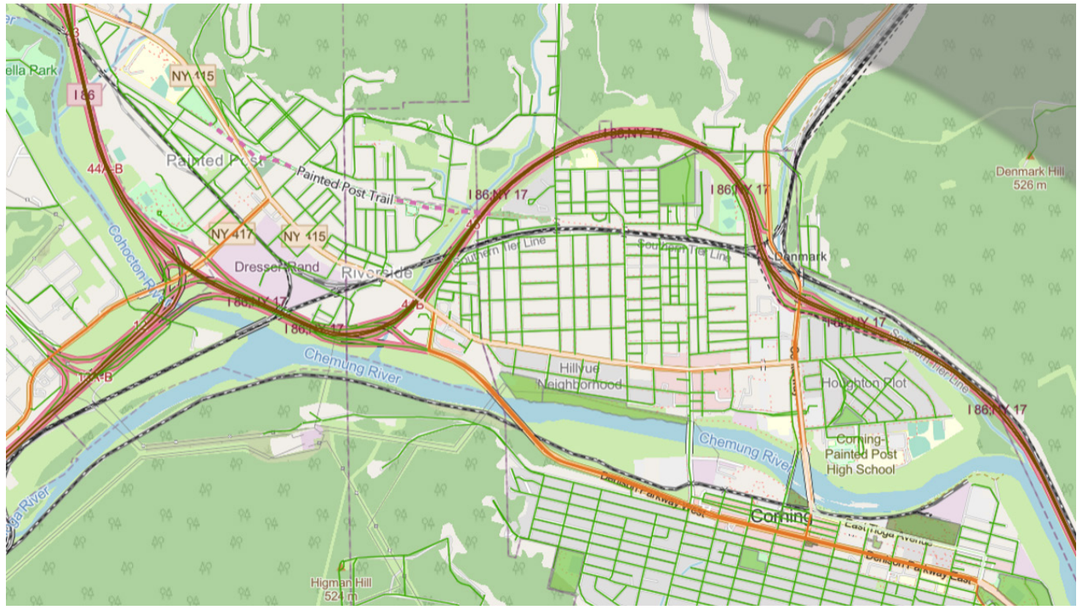
Railroads

Active railways can present a barrier to trail development, through the core of the study area runs the active Norfolk Southern Railroad track. The rail line runs east-west on the northern side of the Chemung River between the Town of Erwin and the Town of Horseheads, it then runs north-south between the Southern Tier Logistics Business Park in the Village of Horseheads and south through the City of Elmira where it bends to the east along the Chemung River and out of the project area through Southport towards Sayre, PA.

The area includes a second east-west track on the southern bank of the Chemung River which terminates in the City of Corning.

The area has a strong history and exciting future associated with rail infrastructure and manufacturing, the City of Corning and the City of Elmira host significant industrial operations and associated rail infrastructure. The Southern Tier Logistics Business Park hosts Siemens Mobility manufacturing the Brightline West high-speed trains and the Village of Elmira Heights hosts CAF USA manufacturing trainsets for Amtrak and the City of Boston.

Strategies for developing trails in proximity to active rail lines have been successfully implemented in many communities including the nearby Cayuga Waterfront Trail along the southern shore of Cayuga Lake. This trail runs in close proximity to the active Norfolk Southern railroad tracks and utilizes tall fencing and adequate trail widths and shoulders to enhance safety.

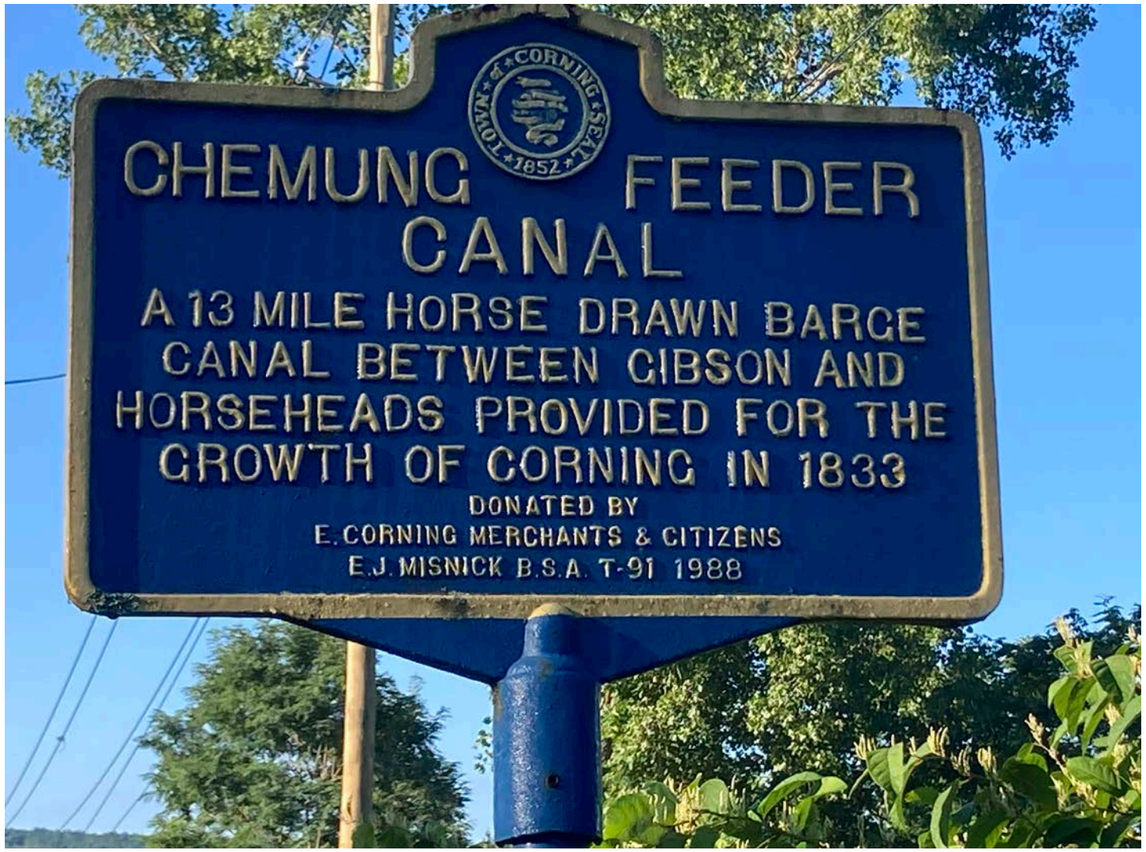


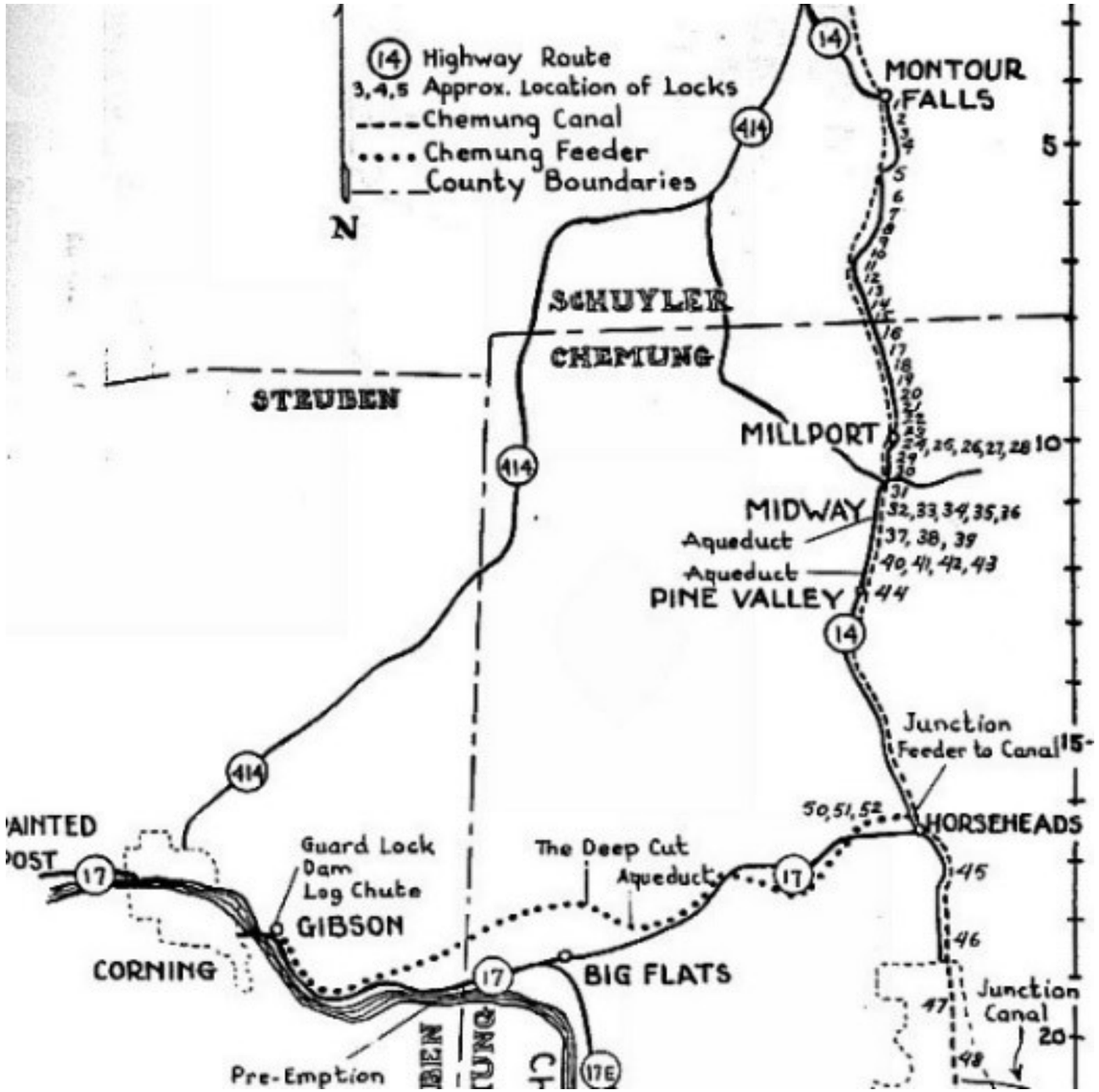
The Cayuga Waterfront Trail parallels the active rail along the old Cayuga Inlet and implements tall fencing to protect users. At the railroad crossing alongside 3rd street, the trail surface is painted with a railroad symbol and a stop bar, there is also an automated pedestrian railroad crossing arm with lights.

Historic Canal Towpaths

In the 1830s the construction of a 23-mile canal system from Seneca Lake to the Chemung River began, creating a navigable feeder canal system with 53 locks, 24 bridges, towpaths, bridges, and aqueducts. Canal towpaths in the project area are no longer continuous and have been interrupted and sculpted by new construction. The feeder canal running north-south from Elmira to Watkins Glen is generally intact and much of it is owned by Chemung County, this route is under design for the development of the Chemung Canal Connector Trail project aimed to connect the Catharine Valley Trail with the Lackawanna. In addition, the east-west portions of the feeder canal system remain opportunities for consideration in the development of the Greenway.

The NYS Canal Corporation Empire State Trail – Utica Harbor to Frankfort includes 3.5 miles of off-road trail providing stunning views of the Erie Canal.





Levees and Flood Protection Areas

Flood control levees and structures protect development in the project area. Development of these structures were generally authorized under the Flood Control Act of 1936 and constructed in the 1940s, flood control modifications have either maintained or raised embankments to add greater protection. The levees in the project area consist of the following structures and are operated and maintained by US Army Corps of Engineers and the NYS DEC.

In the project area primitive footpaths exist along many of the earthen embankments; however, no formal trails are developed. The NYS DEC Region 8 was consulted during the course of this project and they strongly assert that no trail development would be approved on levee structures by the DEC in the region. The flood structures are critical infrastructure necessary for the protection of life and property, development of footpaths and trails can compromise the integrity of the structures. As such, this feasibility study does not recommend construction upon the levees.

Flood Protection Control lands are present in the Erwin Area and defined as the Gang Mills Flood Protection Control Project. Construction in flood control areas requires trail construction techniques with minimal disturbance. Due to reoccurring flooding, regulations, potential alterations of natural hydrology, any proposed trail design should consider regular flooding. Structures located within the floodway are likely to require a no-impact/no-rise study to model and reflect changes in water levels during flood events due to construction. While maintenance after flooding may require sediment and debris removal, a well-designed greenway will not be damaged by routine flooding. Discussion with the DEC flood control engineer identified that any proposed trails on flood control lands (far away from the levee) must not interfere with Department maintenance and operations equipment and withstand Department same crossing or working from the trails. Also, the trails must not interfere with stormwater flow (not cause ponding). It is important that the location of trails do not invite or cause unwanted side trails.

For a recent update on flood control levees, refer to the Southern Tier Central Flood Control Levees in Chemung, Schuyler, and Steuben Counties, 2024.

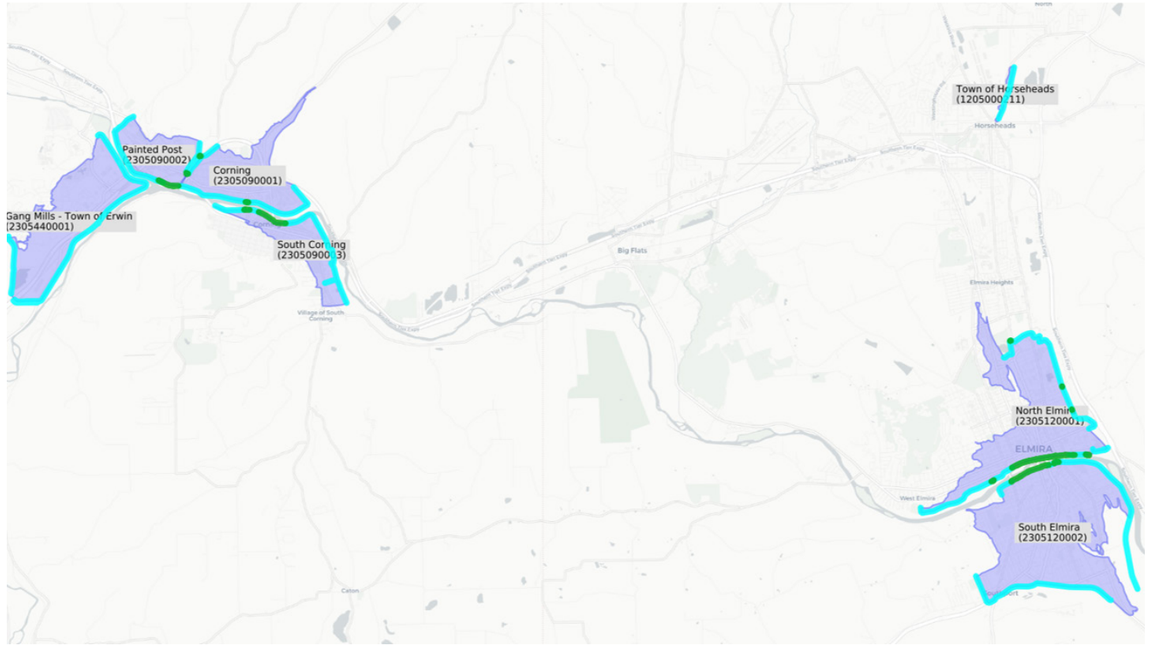


Table 2 - Project Area Levees

Levee Structure Name	Flood Source	Construction	Population Protected	Property Value
Gang Mills – Town of Erwin (2305440001)	Tioga River, Cohocton River	Earthen Embankment	3,462	$694,827,225
Painted Post (2305090002)	Chemung River, Tioga River, Cohocton River	Floodwalls, Earthen Embankments	2,075	$265,055,070
Corning (2305090001)	Cutler Creek, Chemung River	Floodwalls, Earthen Embankments	4,714	$701,571,560
South Corning (2305090003)	Chemung River	Floodwalls, Earthen Embankments	9,516	$715,971,740
North Elmira (2305120001)	Chemung River	Floodwalls, Earthen Embankments	15,555	$2,939,037,001
South Elmira (2305120002)	Chemung River, Seely Creek	Floodwalls, Earthen Embankments	15,480	$1,435,189,010

Roadways

Aspects of the existing roadway transportation network were analyzed in the study area including: DOT right-of-way planned improvements, County planned improvements, transportation safety and high risk areas, existing and proposed bicycle and pedestrian infrastructure. State Bicycle Route 17 is a signed, on-road bicycle route that spans the project area from the Town of Erwin east to the City of Elmira. Along SBR 17 the speed limit ranges between 55 and 30 miles per hour, the shoulder width varies from 10-feet to zero, and dedicated bike lanes are present in limited reaches of the route. The creation of bicycle facility design that is safe, comfortable, equitable and promotes increased ridership is a goal of the Chemung River Greenway.

Victor's Auburn Trail includes wooden and steel bridges with designs dependent on the length of the span and conditions.

Culverts and Bridges

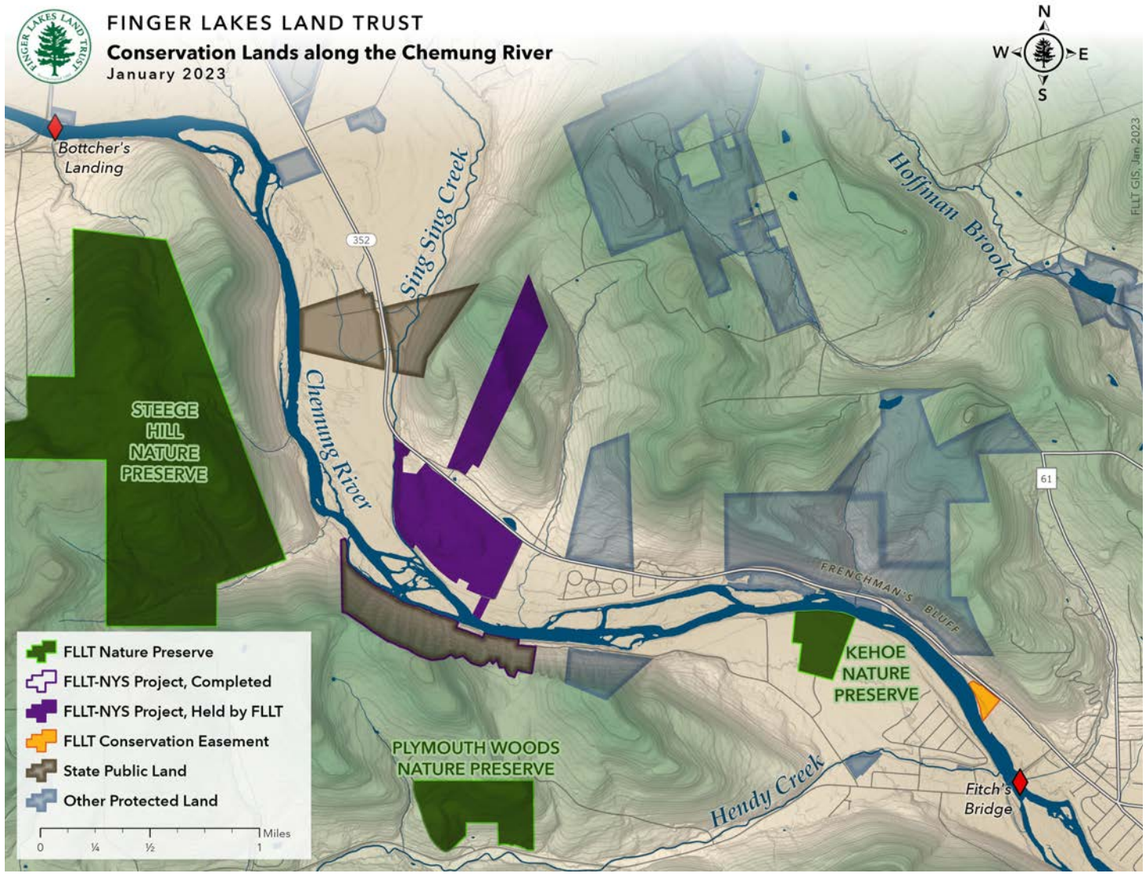
The project area runs along waterways like the Chemung River and its tributaries, along rail lines and roadways, resulting in interactions with numerous bridges. Greenway alternatives may need to cross underneath or on top of a bridge. Construction practices to safely navigate natural barriers and infrastructure are anticipated to require the utilization of existing and the construction of new bridges and culverts. The design and development of these structures requires highly detailed construction plans developed in accordance with guidelines and standards, certified by a licensed engineer, and approved by regulatory agencies.

THE NATURAL ENVIRONMENT

Conservation Areas

The Chemung River basin includes conservation areas protected by the efforts of the Finger Lakes Land Trust, NYS Department of Environmental Conservation, The Nature Conservancy, municipalities, nonprofits, and private entities. Protecting these lands improves outdoor recreation opportunities, protects water quality, and safeguards scenic views. Where possible, Greenway development considers connection to these valuable natural resources and protected areas.

Figure 8 - FLLT Chemung Projects



The Finger Lakes Land Trust (FLLT) was established in 1989 to protect forests, farmland, gorges, and shorelines in the Finger Lakes Region of New York. The nonprofit organization has conserved over 33,000 acres across twelve counties in the Finger Lakes area. There are multiple FLLT public preserves within close proximity to the Chemung River Greenway Project Area, including the Houghton Land Preserve, Steege Hill Nature Preserve, Plymouth Woods Nature Preserve, Kehoe Nature Preserve, and Bad Bear Hill. In addition, FLLT partners with municipalities and New York State to protect this remarkable area.

A Small Chemung River Project with a Big Impact

By purchasing a key, 2-acre property, the FLLT protected 190 feet of Chemung riverbank and connected 211 previously conserved acres with the river. The FLLT intends to convey both properties to the NYS DEC as an addition to the Big Flats Wildlife Management Area.

Protecting these properties improves outdoor recreation opportunities, protects water quality, and safeguards scenic views. This is the FLLT's 18th project in the Chemung River watershed. Other protected lands nearby include the FLLT's Steege Hill, Plymouth, and Kehoe nature preserves and the Nature Conservancy's Frenchman's Bluff Preserve.

Finger Lakes Land Trust, 2023 Annual Report, page 22

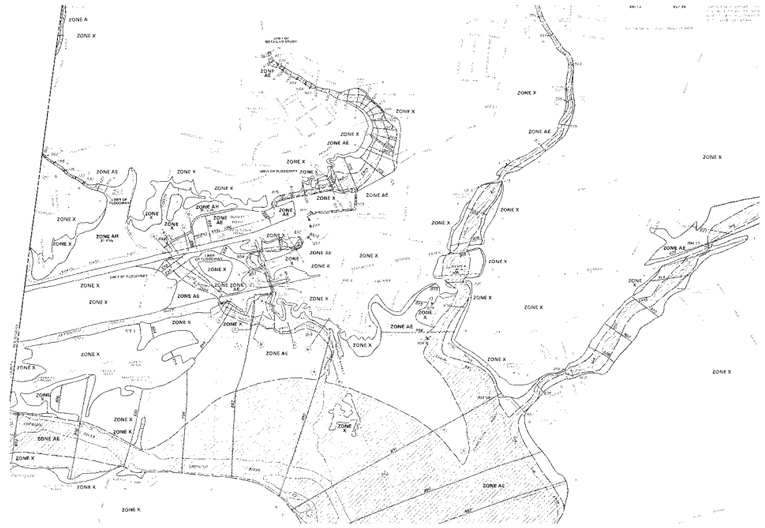
New York State Department of Environmental Conservation (DEC) Wildlife Management Areas foster a healthy, resilient, and diverse landscape, providing high quality wildlife habitat that is protected into the future. The newly transferred land along the Chemung River in the Town of Big Flats, including portions of the well-known natural landmark known as the Palisades is an example of the collaboration between FLLT and DEC. The Palisades are a collection of cliffs that together provide a wrinkled look. The Big Flats Wildlife Management Area provides habitat for bald eagles, black bears and other wildlife, protects significant natural resources, improves water quality, and enhances public access to the river.

The Nature Conservancy is a global environmental nonprofit working to create a world where people and nature can thrive. The mission of The Nature Conservancy is simple yet bold, “To conserve the lands and waters on which all life depends.” The Nature Conservancy holds over 150-acres along NYS Route 352 in the Town of Big Flats, conserving the north and south ridgelines that border 1.2 miles of Chemung River shore, protecting the Palisades and significant natural habitats. The Nature Conservancy partners with the Tanglewood Nature Center and maintains the right to maintain visual access to and view of the protected lands in natural, scenic, and open condition and to monitor the condition of plant and animal populations. TNC has an interest in creating more trails, to improve the accessibility of existing trails. The TNC lands in the project area provide an opportunity for the development of the Chemung River Greenway.

Stewart Park in Ithaca includes several pedestrian bridges crossing Fall Creek.

Waterbodies

Ponds, rivers and their tributaries, and feeder canals are plentiful in the project area and provide high aesthetic value for greenways. Many of the existing parks and trails in the project area have rivers, ponds, and wetlands which provide points of interest and habitat for wildlife. The additional moisture in riparian environments create conditions suitable for many plants and wildlife species, while high moisture can also make trail tread muddy and generally will require construction methods that may include specialty sub-base, boardwalk structures, or a pedestrian bridge. Consideration of permitting required for development near waterways is required. Trail maintenance may also require additional care if the area is prone to flooding during high water events. Developing trails along waterbodies presents both opportunities and challenges and each individual proposed trail segment will have a unique set of conditions, permitting, and design parameters to meet.



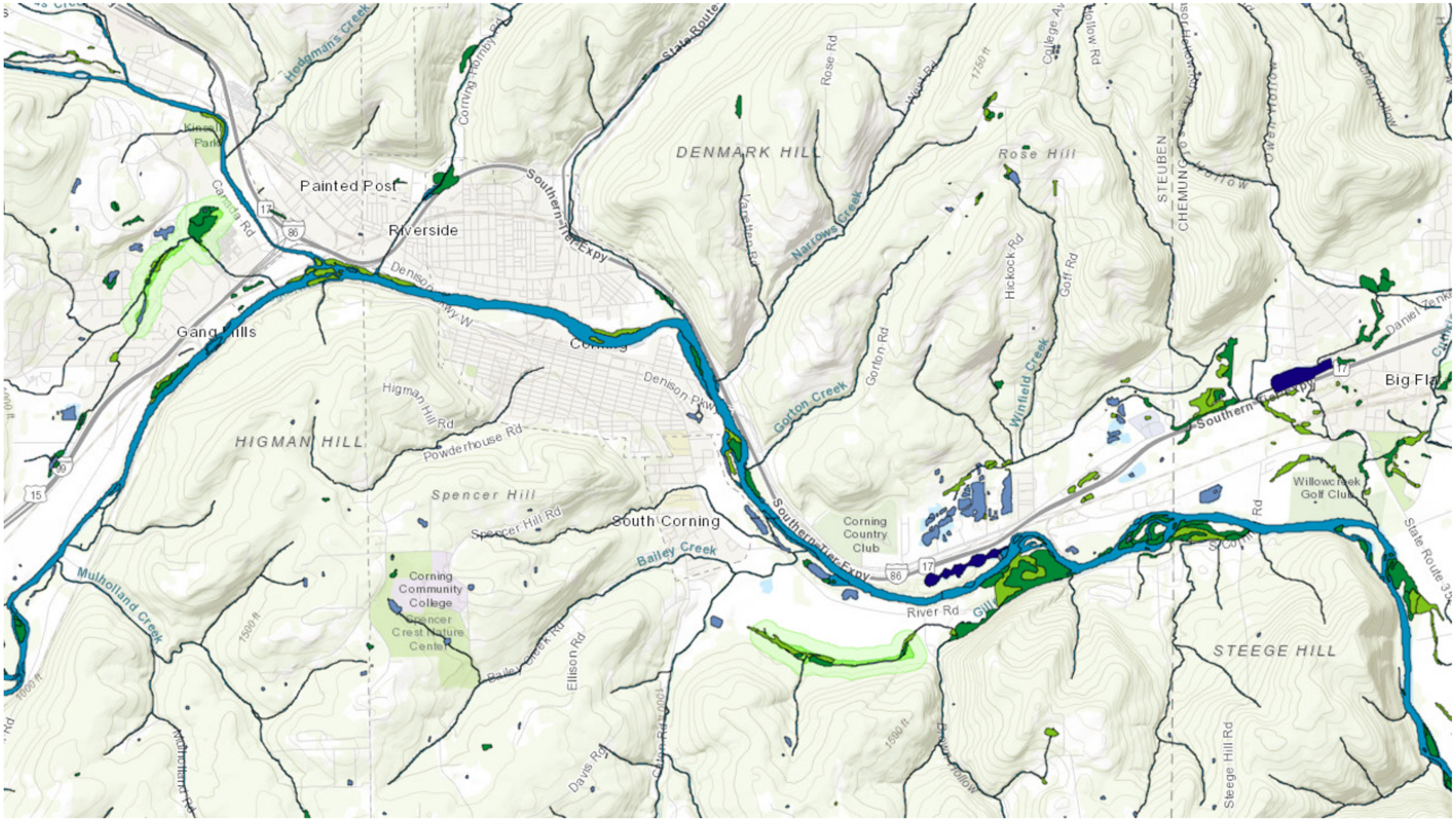
Floodplains

Floodplains provide advantages and disadvantages for trails. Development is regulated within the floodplain, allowing for continuous undisturbed natural areas. Due to the intent of the land to absorb rising waters and provide protection during flood events, the land is subject to flooding. Trail development in these areas will require detailed coordination with regulatory agencies and trail design that is sensitive to the conditions. (Jenn developing content for floodplain map context)

Wetlands and Waterways

There are wetlands and waterways within the study area as indicated on the maps as determined through the utilization of the National Wetlands Inventory and the NYS DEC Resource Mapper. These desktop methods do not accurately identify all wetlands and further field studies to produce wetland delineation should occur as part of the design phase. Wetlands are regulated by the US Army Corp of Engineers (USACE) under the Clean Water Act and by the NYS DEC under the New York State Freshwater Wetlands Act. Around state protected wetlands there are wetland checkzones providing a 100-foot buffer in the adjacent area that is also subject to regulation. wetland delineation, permitting, and sensitive design practices can result in approvals for construction in wetland areas.

Figure 9 - Waterbodies and Wetlands



Rare, Threatened and Endangered Species

Initial review of Rare, Threatened & Endangered Species within the project area was conducted with the USFWS IPaC Tool, NYS EAF Mapper, and NYS Resource Mapper which indicate that the following species are potentially affected by activities in this location. Project activities should conduct a habitat survey and consider the species habitat during the permitting and design phase.

Table 3 - Rare, Threatened, and Endangered Species within Project Area

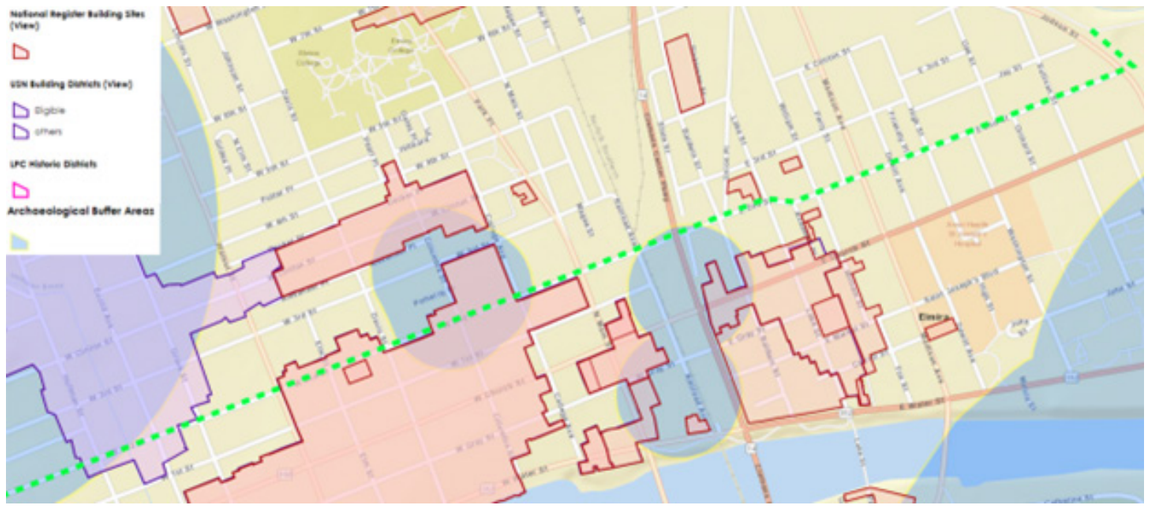
Project Area	Species	New York Classification	Federal Classification
Elmira, Big Flats, Corning, Erwin	Northern Long-Eared Bat	Endangered	Endangered
Big Flats, Erwin	Tri-Colored Bat	High Priority Species	Proposed Endangered
Elmira, Big Flats	Timber Rattlesnake	Threatened	Not Listed
Elmira, Big Flats, Corning, Erwin	Green Floater Clam	Threatened	Proposed Threatened
Elmira, Big Flats, Corning, Erwin	Monarch Butterfly	Not Listed	Candidate Species
Erwin	Northeastern Bulrush	Not Listed	Endangered
Elmira, Big Flats, Corning, Erwin	Bald Eagle	Threatened	Non-BCC Vulnerable
Elmira, Big Flats, Corning	Golden Eagle	Endangered	Non-BCC Vulnerable
Elmira, Big Flats, Corning, Erwin	Black-Billed Cuckoo	Not Listed	BCC Rangewide
Elmira, Big Flats, Corning, Erwin	Black-Capped Chickadee	Not Listed	BCC-BCR
Elmira, Big Flats, Corning, Erwin	Bobolink	High Priority Species	BCC Rangewide
Elmira, Big Flats, Corning, Erwin	Canada Warbler	High Priority Species	BCC Rangewide
Elmira, Big Flats	Cerulean Warbler	Special Concern	BCC Rangewide
Elmira, Big Flats, Corning, Erwin	Chimney Swift	Not Listed	BCC Rangewide
Elmira	Golden-Winged Warbler	Special Concern	BCC Rangewide
Corning, Erwin	Kentucky Warbler		BCC Rangewide
Elmira, Big Flats	Northern Saw-Whet Owl	Not Listed	BCC-BCR
Elmira, Big Flats, Corning, Erwin	Prairie Warbler	Not Listed	BCC Rangewide
Elmira, Big Flats	Prothonotary Warbler	High Priority Species	BCC Rangewide
Big Flats, Corning, Erwin	Red-Headed Woodpecker	Special Concern	BCC Rangewide
Elmira, Big Flats, Corning, Erwin	Rusty Blackbird	High Priority Species	BCC-BCR
Elmira, Big Flats, Corning, Erwin	Wood Thrush	Not Listed	BCC Rangewide

HISTORIC RESOURCES

Archaeological Sensitive Cultural Resource Areas and Historic Sites

Preliminary design and permitting activities will include consultation with NYS Office of Parks and Historic Preservation (NYSOPRHP) utilizing the online Cultural Resource Information System to conduct a preliminary review of the project area. NYS OPRHP will respond to the consultation with a letter documenting if there is need for additional survey such as the Phase 1A/1B archaeological evaluation. Potential resources could include human remains, burial sites, archeology sites and historic sites and resources. The NYS CRIS database was reviewed and the following were identified in the project area: archaeological buffer areas, National Register Building Sites, National Register Building Districts, National Register Eligible Building Districts. In general, it is anticipated that a greenway would have no effect or have a complimentary relationship to the preservation of these sites. Coordination will require consultation with NYSOPRHP.

Figure 10 - Archaeological Sensitive Cultural Resource Areas and Historic Sites Map



CREATING THE CHEMUNG RIVER GREENWAY

COMMUNITY PLANNING PROCESS

Developing a Trail Feasibility Study is a process requiring detailed analysis, public engagement, site investigations, and multiple rounds of feedback from project partners and the community at large. Background information is gathered through the review of prior planning efforts, researching existing conditions, and soliciting input from a broad cross-section of the community.

CHEMUNG RIVER GREENWAY STEERING COMMITTEE

Three Rivers Development Corporation formed a Steering Committee that consisted of regional planners, business leaders, tourism specialists, and community members tasked with overseeing the planning process of the Chemung River Greenway Feasibility Study. The Steering Committee began meeting in December of 2023 and conducted or oversaw the following:

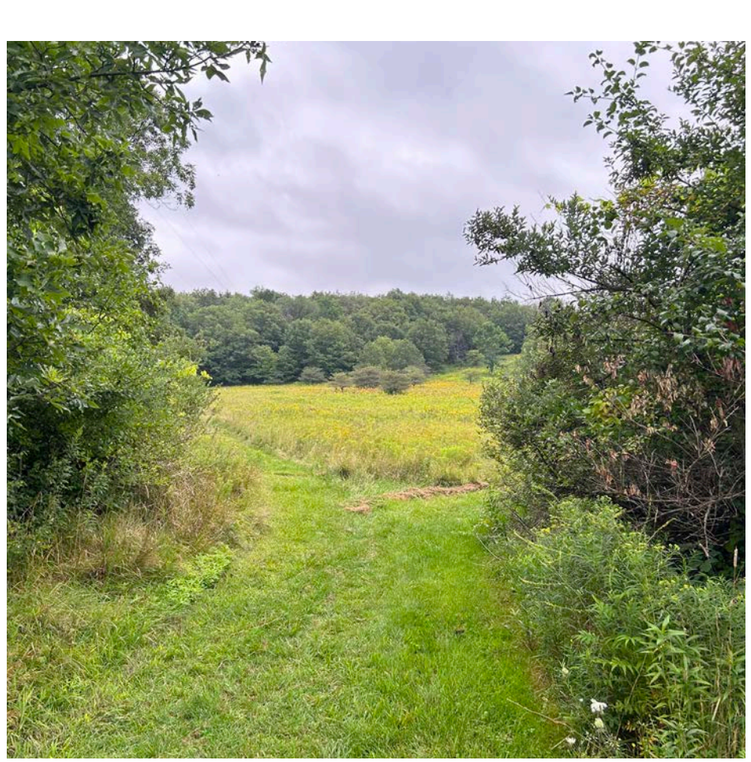
- Initial identification of project area and scope;
- Area assets, reports, and background information;
- Stakeholder engagement method and reach;
- Public participation events and content; and
- Identification and prioritization of plan recommendations.

Refer to the Chemung River Greenway Existing Conditions Report published in June 2024 for analysis of related plans.

- *The Nature Conservancy Annual Report*
- *NYS Open Space Conservation Plan*
- *Upper Susquehanna Watershed Conservation Focus Areas*
- *Southern Tier Regional Economic Development Strategy*
- *Southern Tier Central Comprehensive Economic Development Strategy*
- *Southern Tier Central Susquehanna-Chemung Action Plan*
- *Economic Impact of Visitors in New York Finger Lakes*
- *Chemung River Trail Assessment and Comprehensive Master Plan*
- *Friends of the Chemung River Watershed Strategic Plan*
- *Susquehanna Chemung Action Plan*
- *Southern Finger Lakes Quality of Life Messaging*
- *I86 Innovation Corridor*
- *Chemung County Farmland Protection Plan*
- *Steuben County Agricultural Development and Expansion Plan*
- *Steuben County Agricultural Farmland Protection Plan*
- *Town of Big Flats Comprehensive Plan*
- *Village of Horseheads Comprehensive Plan*
- *City of Elmira Comprehensive Plan*
- *Corning Parks Strategy*
- *Elmira Chemung Bicycle Pedestrian Trail*
- *Town of Erwin Green Infrastructure Plan*
- *Town of Erwin Comprehensive Plan*

COMMUNITY PROFILE

The project area is located within Chemung County and Steuben County. The service area will benefit the southern Finger Lakes region and is proposed to provide connectivity with existing multi-use trail networks including, the Painted Post Trail (Erwin, Painted Post, Riverside), Sperr Park Trail (Big Flats), Catharine Valley Trail (Horseheads, Veteran, Millport, Montour Falls), and the Lackawanna Trail (Elmira, Waverly). Connection to existing publicly owned recreational areas including: The Nature Conservancy lands, Finger Lakes Land Trust preserves, and NYS Department of Environmental Conservation State Parks, Wildlife Management Areas, and boat launches was considered. Regional benefits of the Chemung River Greenway will be realized at the completion of future construction phases and will include greater connection in the region, small-scale and entrepreneurial economic development along the route, increased access to outdoor recreation and alternative transportation, overall better quality of life for residents, and enhanced outdoor and recreational assets for the region.



MUNICIPAL JURISDICTIONS

STEUBEN COUNTY

- City of Corning 10,551
- Town of Erwin 8,095
- Town of Corning 5,893
- Town of Addison 2,397
- Town of Lindley 1,813
- Village of Painted Post 1,768
- Village of Addison 1,561
- Town of Tuscarora 1,390
- Village of Riverside 423

CHEMUNG COUNTY

- City of Elmira 26,737
- Town of Horseheads 19,326
- Town of Big Flats 7,775
- Town of Elmira 6,843
- Village of Horseheads 6,843
- Village of Elmira Heights 4,265

BENEFITS TO COMMUNITIES

Across the nation, communities are investing in multi-use trail infrastructure. The newly completed Empire State Trail connecting New York City, Buffalo, and the Adirondacks along the Hudson River and Erie Canal, demonstrates the growing interest in connecting residents and visitors to the natural, cultural, and historic assets of the state. The Chemung River Greenway multi-use trail will link communities, provide a safe and enjoyable outdoor recreation opportunity, encourage healthy lifestyles, support small scale economic development, and contribute to the development of a local, nonmotorized transportation route which will help to address social equity. Additionally, as we seek to promote our region's quality-of-life for workforce recruitment and retention, the creation of a multi-use trail asset would greatly enhance our community's overall livability.

Table 4 - Trail Trip Characteristic Assumptions	
Off-Road Routes	• Trail users will start and end at the same location • The average pedestrian trip would be a round trip of 4-miles (2-miles out) • The average bicycle trip would be a round trip of 10-miles (5-miles out) • Mode share of 65% pedestrians and 35% bicyclists
On-Road Routes	• No pedestrians • 15% of original bicycle user group based on anticipate to include only experienced riders

Table 5 - Population Density by Municipality

Community	Population (2020)	Area (Sq Mi)	Population Density (Persons/Sq Mi)
City of Elmira	26,523	7.6	3490
Town of Elmira	6,872	22.5	305
Town of Big Flats	7,791	44.5	125
Town of Corning	5,983	37.3	160
City of Corning	10,551	3.3	3197
Village of Riverside	423	0.3	1410
Village of Painted Post	1,768	1.3	1360
Town of Erwin	8,095	39.2	207
Town of Addison	2,397	25.5	94
Village of Addison	1,561	1.9	822
Town of Lindley	1,813	37.5	48
Town of Tuscarora	1,390	37.6	37
TOTAL	**75,167**	**258.5**	**291**

Source: U.S. Census, ACS 5-Year Estimates, 2020

PROJECTED TRAIL USER ANALYSIS: CHEMUNG RIVER GREENWAY

User estimates are typically conducted on existing trails or for extensions of existing rails, no data of user estimates for the regional multi-use trails is available. It is known that the greatest number of users on the Painted Post Trail occurs annually as the Wine Glass Marathon utilizes a portion of this trail, welcoming over 6,500 people. Some smaller regional events are held on the Catharine Valley Trail and include First Day Hike on January 1st, monthly community trail history walks, and a Montour Falls 5K run. The Lackawanna Trial hosts weekly Park Runs, a fun and free weekly 5k community event.

Lacking specific regional trail data, this report adopts the methodology developed by Empire State Trail, Trail User Projections, 2018 to perform some preliminary analysis. To estimate the anticipated number of trail users, regional population densities will be used as the foundation for this analysis. The Empire State Trail analysis assumes the following trip characteristics, which are also applied in Table 3.

Following the EST Trail User Projection methodology and input the population and area of each community through which the proposed Chemung River Greenway traverses to determine the population density along the route.

Utilizing the EST Trail User Projection formula where population density is correlated to annual trail user, results in the following projected trail users for the Chemung River Greenway:

Projected Annual Trail Users = (34.725 x Population Density) + 66,500
Projected Annual Trail Users = 34.725 x 291 persons per square mile + 66,500
Projected Total Annual Trail Users = 76.597 persons per year

Projected Annual Bicycle Trail Users = 35% of Total
Projected Annual Bicyle Trail Users = 26,809 persons per year

Projected Annual Pedestrian Users = 65% of Total
Projected Annual Pedestrian Trail Users = 49,778 persons per year

PROJECTED ECONOMIC IMPACT

The Economic Potential of the Great American Rail-Trail Methods & Data Sources was referenced to understand the potential economic impact of the annual trail users. The report identifies that while trail use by residents is invaluable for quality of life and health, trail use by visitors brings new spending and new economic opportunities to the community. Utilizing the NY and PA data presented in the Great American Rail-Trail analysis, the share of users who are visitors are considered:

Table 6 - Trail User Visitors

Trail Location	Share of Users who are Visitors	Source Data
Catskill Mountain Rail-Trail (NY)	23%	Camion Associates. 2013. Catskill Mountain Rail-Trail Economic and Fiscal Impact Analysis. Presented at the New York-New Jersey Trail Conference, June 17, 2013.
D&L Trail (PA)	23%	Tomes, P. and C. Knoch. 2012. D&L Trail 2012 User Survey and Economic Impact Analysis. Camp Hill, PA: Rails to Trails Conservancy.
Ghost Town Trail (PA)	7%	Tomes, P. and C. Knoch. 2009. Ghost Town Trail 2009 User Survey and Economic Impact Analysis. Rails to Trails Conservancy and Pennsylvania Department of Conservation and Natural Resources.
Great Allegheny Passage (PA)	33%	Fourth Economy. 2021. Great Allegheny Passage Economic Impact Report. Great Allegheny Passage Conservancy.
Average for NY-PA Region	21.5%	

We apply the average of 21.5% to our estimate of annual trail users to determine users who are visitors. The Projected Total Annual Trail Users for the Chemung River Greenway is 76,597 persons per year, with 21.5% or 16,468 visitors. Utilizing the assumption in the local Tanglewood Nature Center Canopy Walkway Economic and Fiscal Impact analysis conducted by Camoin Associates, 2023 presents the assumption that 45% of net new visitors will be from out of county and are considered net new visitors. As such, the Chemung River Greenway is projected to create 7,411 net new visitors.

Table 7 - Chemung River Greenway Trail Users and Net New Visitors

Projected Total Annual Trail Users	**76,597**
Share of Users who are Visitors (21.5%)	16,468
Share of Visitors from Outside of County (45%) – Net New Visitors	**7,411**
Overnight Visitor Days (40%)	2,964
Day Visitor Days (60%)	4,446

Based on the Tanglewood Camoin estimates, with average spending of $40 per day visitor day and $119 per overnight visitor days, the total direct spending is calculated to be $530,613 per year. Additional impact will be created through indirect and induced visitor spending, construction, and tax revenue. An analysis by a qualified economic impact development specialist is required to further define the economic and fiscal impact of the proposed Chemung River Greenway.

PUBLIC AND STAKEHOLDER ENGAGEMENT

STAKEHOLDER SUMMARY

Stakeholders were identified by Three Rivers Development Corporation and the project team. Stakeholder meetings were arranged by email and/or phone call and were organized to be held either in-person or via phone call by a member of the project team. A total of 25 stakeholder meetings were held between January and August 2024.

The stakeholder meetings focused on collecting input from key community institutions, addressing concerns, and gathering recommendations and considerations. Common issues identified in various stakeholder meetings include:

1. The need to modify utility easements to recreational easements and the challenges posed by private land ownership. To address privacy concerns, fencing systems were suggested.
2. Hazardous materials, especially from old bridges and railroads, were highlighted as potential obstacles, with a recommendation to route trails around such sites.
3. Maintenance was discussed, with a preference for municipal or continuous management partnerships involving cities, counties, and nonprofit groups.
4. The need for parking and restrooms was noted, suggesting the use of boat launches for these facilities.
5. Road crossings require careful planning based on traffic speed and volume, with a call for engagement with DOT Traffic Engineers to ensure safety.

Regarding the levee, the current DEC policy prohibits construction on the levee structure, but trail development on the non-river side might be possible with proper distancing and development within the right of way. The old trolley line presents both challenges and opportunities, with potential partnerships for naming rights and the need for steep slope stabilization and geotechnical assessments. The Chemung Canal, managed by the Chemung County Soil and Water, provides multi-municipal maintenance agreements, aiding in connectivity to the Lackawanna and Catharine Valley Trails.

Municipal engagement involved encouraging discussions with various municipalities the proposed multi-use trail would be constructed through, like Corning, Big Flats, Elmira, Erwin to gauge their interest and prioritize trail development projects. Chemung County Planning is generally supportive of trail development, recognizing the benefits of connecting communities with a multi-use trail and enhancing recreational opportunities.

Trail considerations and recommendations included potential routes like the Wineglass Route and Denison Park Extension, connecting various parks and considering tricky intersections and pedestrian bridge needs. Transportation access was discussed, emphasizing the importance of stops like Corning Hospital.

Floodplain issues were a significant concern, with the DEC limiting trail development on levees. Though it's noted that recreational trails are often recommended uses in flood control protection land areas. Specific challenges included steeper slopes, cliffs, and lack of emergency access points on the southern shore of the Chemung River. Proposed solutions involved developing trails with scenic overlooks and creating barriers from vehicles and sufficient lighting for safety.

Meetings also discussed potential partnerships with the Chemung County Health Department, Finger Lakes Land Trust, and The Nature Conservancy, to leverage the opportunity for ongoing engagement during events like the Golden Shoe Challenge and utilizing utility easements for limited connectivity.

Recommendations include extending existing trails and ensuring connections to significant points like the Painted Post Trail and Lackawanna/Catharine Valley Trails. Finally, Corning Incorporated's involvement was highlighted with consideration of Corning Incorporated land holdings, potential routes, important assets to connect to, and impact on workforce and quality of life. Discussions included potential routes, connections to parks, and addressing physical barriers like railroads and rivers for improved trail construction and amenities.

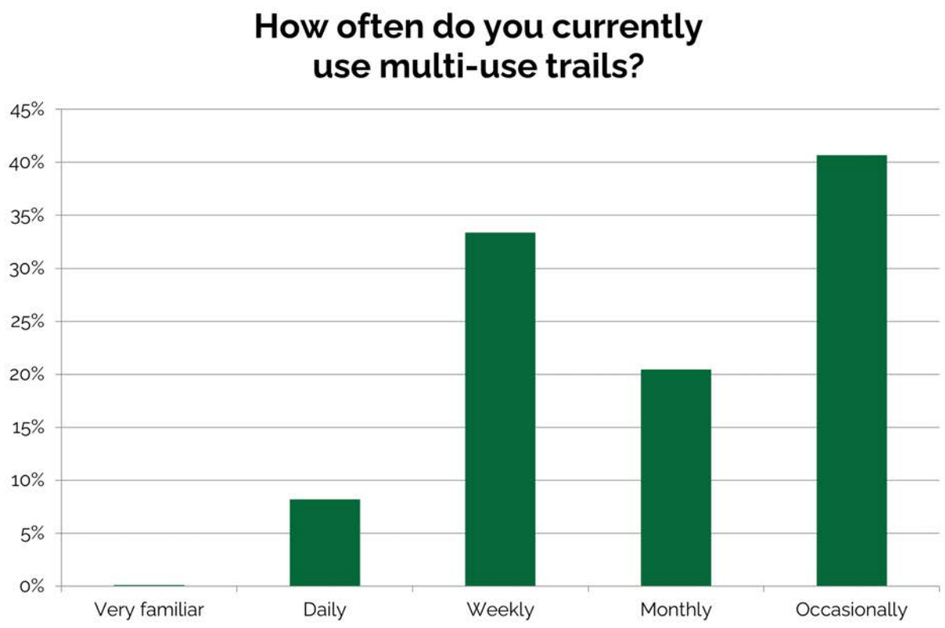
PUBLIC ENGAGEMENT SUMMARY

Through input provided by the Steering Committee, suggestions fielded by Stakeholders, and demographic information analyzed, the project team identified a need for an intentional and strategic engagement process for seeking public input and feedback. This process included hosting open house events, developing a community survey, and developing an online interactive mapping tool. The large, diverse study area includes numerous municipalities and challenges with property ownership. Additionally, because of the long-term nature of trail development projects, learning the preferences of various desired trail uses, including equitable design preferences, was a goal. Public engagement has been crucial in shaping the Chemung River Greenway Feasibility Study. The insights gathered from the community will help ensure the project is both feasible and aligned with public interests.

COMMUNITY SURVEY

The project team with guidance and review by the Steering Committee, developed a public community survey. This survey was launched on February 27, 2024. It was made accessible online and remained open until June 2, 2024. The primary objective of this survey was to collect input from community members and visitors of all municipalities included within the project area, as well as to identify opportunities and challenges around potential trail locations. Efforts made to encourage community members to take the community survey included advertising through local news outlets, as well as distributing project informational flyers and quarter sheets with QR codes linking to the project website to local community spaces. In total, the community survey received **884** responses.

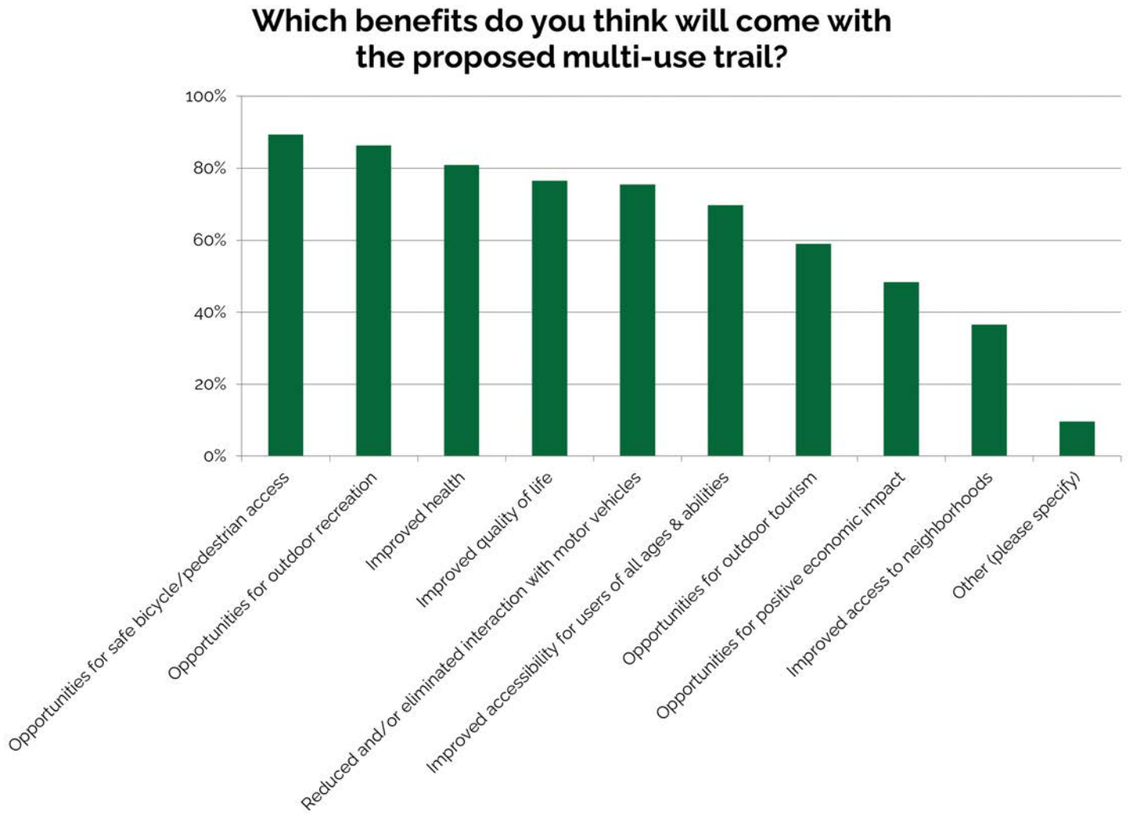
The start of the survey sought to gather insights into how respondents currently utilize existing multi-use trails. 41% of the 800+ respondents stated they utilize existing multi-use trails occasionally; however, an impressive 33% of respondents stated they utilize existing multi-use trails on a weekly basis.



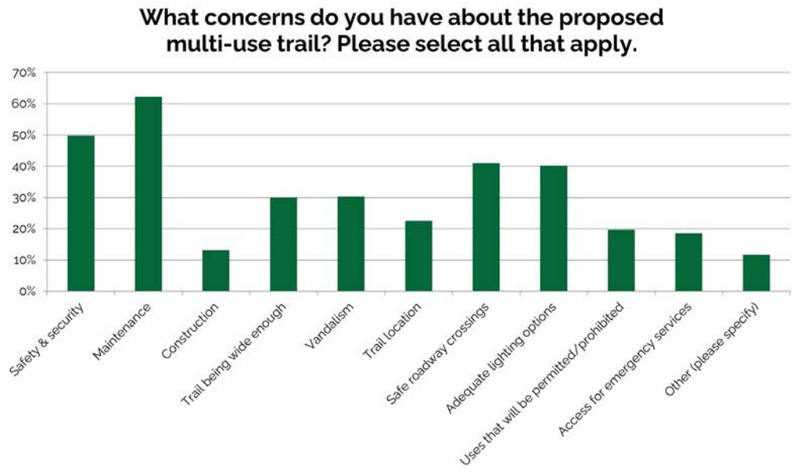
Perceptions of Opportunities and Challenges

Next, the survey sought to gather insights on opportunities and/or challenges with the implementation of the proposed multi-use trail to help the project team uncover overall community goals of the project. When asked about opportunities they think will be provided with the proposed multi-use trail, respondents were presented with a series of various trail benefits.

The highest selected options chosen by respondents include opportunities for safe bicycle/pedestrian access (89%), opportunities for outdoor recreation (86%), improved health (81%), improved quality of life (77%), reduced and/or eliminated interaction with motor vehicles (76%), and improved accessibility for users of all ages and abilities (70%). These responses illustrate that respondents have a strong desire to utilize multi-use trails, as well as have a community asset that will have an overall positive impact on their respective communities.

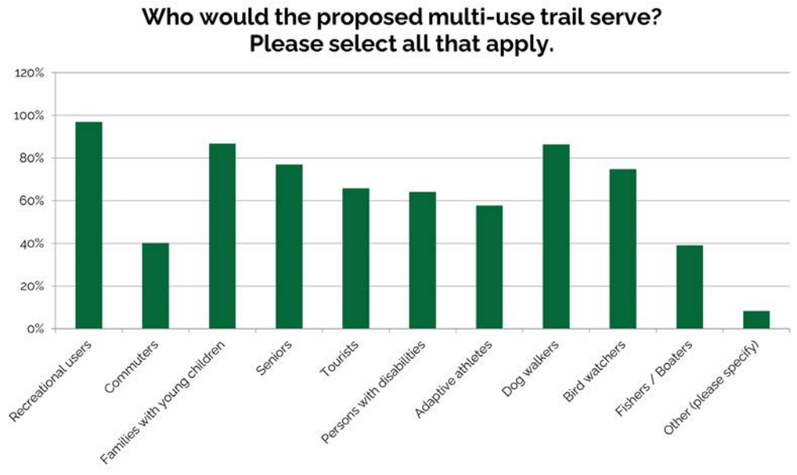


When asked about concerns respondents have with the proposed multi-use trail, respondents were presented with a variety of potential challenges. The highest selected options chosen by respondents include maintenance (62%), safety and security (50%), safe roadway crossings (41%), and adequate lighting options (40%).



Additional concerns were expressed, some of which include property ownership, funding, crime, vandalism, access to parking, and whether the trail will be wide enough to accommodate those utilizing the trail by bike, foot, or wheelchair. These responses illustrate that community members want to ensure that an added community asset will be safe for all users to use at all times.

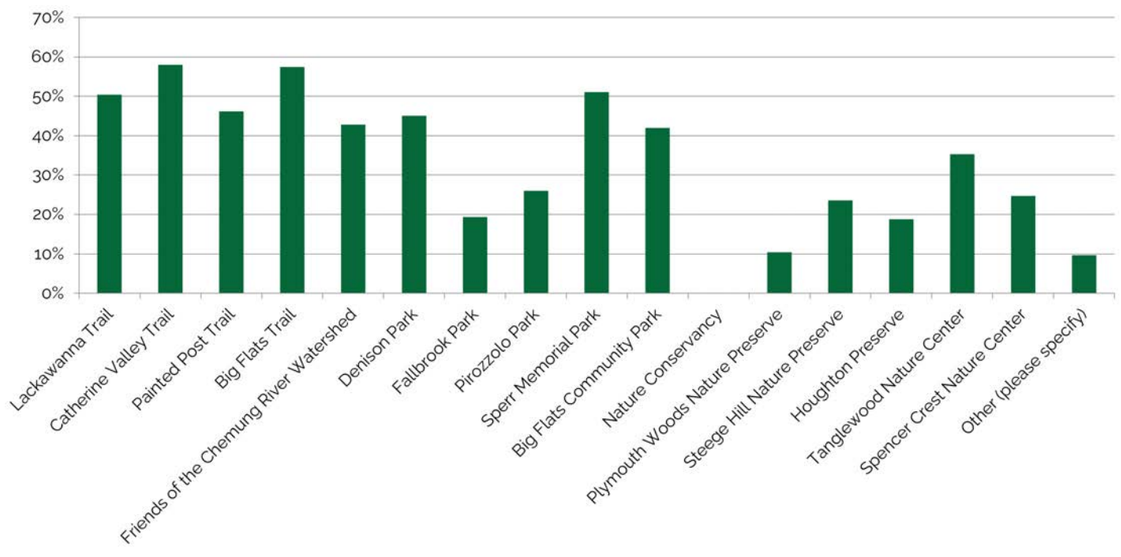
Next, respondents were asked about who the proposed multi-use trail would serve. Respondents were presented with a variety of options; the highest selected options chosen by respondents include recreational users (i.e.. cyclists, pedestrians, and roller bladers) (97%), families with young children (87%), dog walkers (86%), seniors (77%), and bird watchers (75%). Additional trail uses noted by respondents include equestrian use / access, educational groups, local running groups, and cross-country skiers. This illustrates the wide variety of uses that community members envision a multi-use trail benefitting.



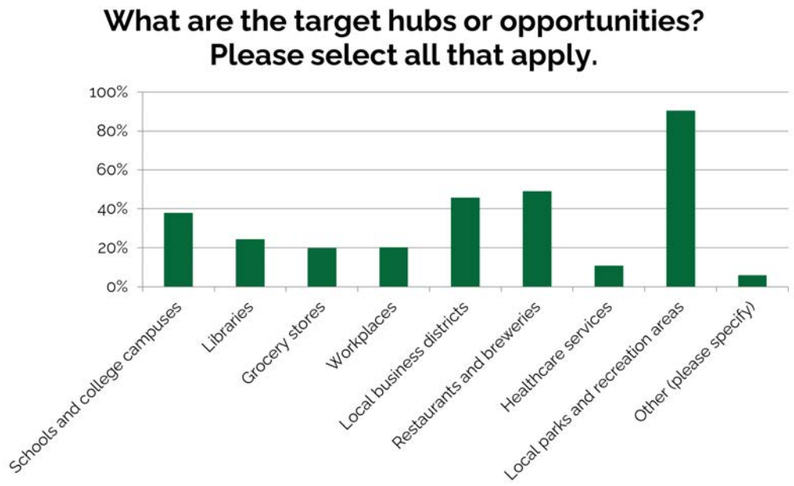
Trail Connectivity

The project boundary has several existing trails, local parks, and nature preserves, and nature centers. The survey sought to gather insights on popular outdoor amenities and if respondents would like to see the proposed multi-use trail connected to these amenities. When asked which existing community amenities they would like to see connected to the proposed multi-use trail, respondents selected several options based on the type of amenity. For existing trails, the highest selected options chosen by respondents include Catharine Valley Trail (58%), Big Flats Trail (57%), Lackawanna Trail (50%), and Painted Post Trail (48%). For existing parks, the highest selected options chosen by respondents include Sperr Memorial Park (51%), Denison Park (45%), and Big Flats Community Park (42%). For existing nature preserves / centers, the highest selected option chosen by respondents include Tanglewood Nature Center (35%) and Steege Hill Nature Preserve (24%).

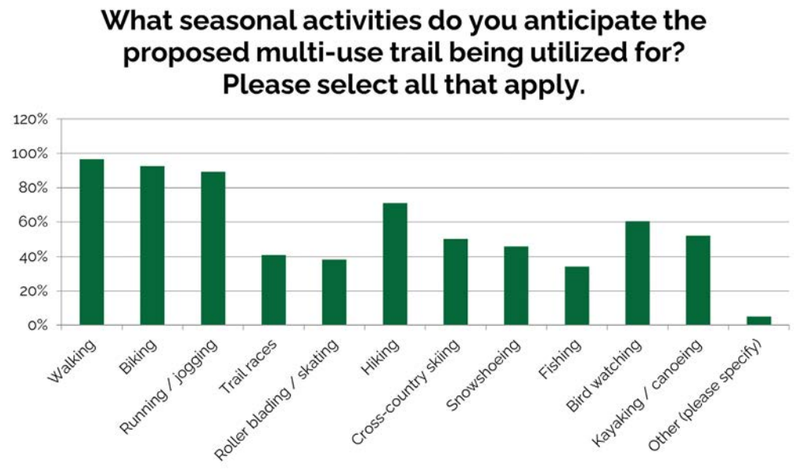
This shows that community members primarily want the proposed multi-use trail to primarily connect to other existing multi-use trails, as well as to various local parks located around the project boundary, to accomplish the goal of having improved access to local community assets without needing to utilize a personal vehicle to access them. The lack of engagement with The Nature Conservancy lands indicates that community members are not aware that the Tanglewood Nature Center (35%) includes land conservation easement and partnership with The Nature Conservancy.



One goal of the proposed multi-use trail implementation is to improve connectivity to local hubs or communities throughout the various municipalities the multi-use trail will travel through. When asked about opportunities for the trail to connect to these local hubs, responses primarily favored the connectivity of local parks and recreation areas (91%), followed by restaurants and breweries (49%), local business districts (46%), and schools and college campuses (38%). Additional responses from respondents include museums, medical services, and public art.



Year-round trail use has been identified as a desired outcome for the proposed multi-use trail. When respondents were asked which seasonal recreational activities they anticipate the proposed multi-use trail being utilized for, a variety of options were selected for all seasonal conditions. The highest selected options chosen by respondents include walking (97%), biking (93%), running / jogging (89%), and hiking (71%). Other uses noted include equestian use, bird watching, and educational programs for nature enthusiast groups. While active recreation is anticipated to be the highest utilization of this proposed trail, the results of this question show that respondents intend to use it for various purposes beyond active recreation.



To conclude the community survey, we gave respondents the opportunity to express what excites them most about this project. Below is a word cloud of the most frequently used words in their responses.

OPEN HOUSE EVENTS

Six open-house style public engagement events were held between March and May 2024 at the following:

March 20th, 2024 – Elmira College Teach-In, 11am-2pm
March 20th, 2024 – Big Flats Community Center, 6-8pm
April 1st, 2024 – Steele Memorial Library, 5-7pm
April 22nd, 2024 – Town of Elmira Community Center, 5-7pm
April 23rd, 2024 – Southeast Steuben County Library, 4:30-6:30pm
May 25th, 2024 – GlassFest, 9am-4pm

Each of these open house events had five stations with comment boards at most stations for participants to interact with. These stations included:

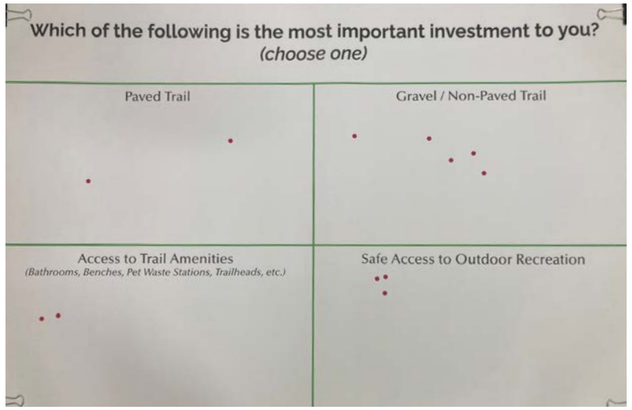
1. **Project Overview** – This station gave context on the project as a whole and what the desired outcome of the feasibility study was, as well as provided comment boards with probing questions for participants to provide feedback.

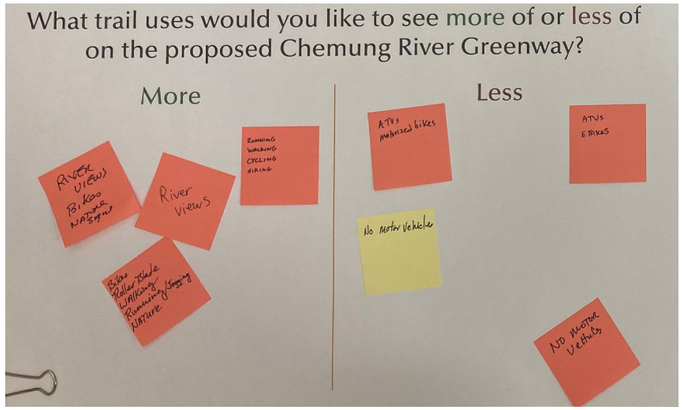
2. **Community Feedback** – This station gave participants the opportunity to take the community survey and/or interact with the online mapping tool.

3. **Project Area** – This station had participants help gauge where they think the proposed multi-use trail would provide the best location by providing feedback directly on maps of the complete project area. Participants were asked to use colored circle stickers to identify areas with opportunities (blue) and challenges (red), as well as the option to leave comments on separate post-it notes to explain why they chose to mark an area as an opportunity or challenge.

4. **Potential Designs** – This station showcased various trail design features that could be included along the proposed trail. Comment boards with probing questions were also provided at this station to gauge which different amenities and features would be preferred along this trail.

5. **Existing Conditions** – This station presented the overall findings from the existing conditions assessment. These findings were presented by a member of our project team and displayed on a projector. The member of our project team assigned to this station elaborated on items as needed and answered questions asked by participants.





The open house events varied in structure and attendance, reflecting diverse community interests and concerns regarding the proposed multi-use trail. The Elmira College Teach-In, held on March 20th, attracted 385 participants and was distinct from other events as it took place on a college campus. Meanwhile, the Big Flats Community Center event, also on March 20th, had 22 attendees who highlighted opportunities such as improved connectivity and outdoor access but also expressed concerns about privacy, safety, and trail materials. A preference for continuous linear trails and a gravel surface was noted among the participants.

Subsequent events, including those at Steele Memorial Library on April 1st and the Town of Elmira Community Center on April 22nd, had 19 and 17 participants, respectively. At these gatherings, attendees emphasized the importance of pedestrian and cyclist safety, the potential for small business growth, and increased outdoor recreation. Concerns were raised about community support, maintenance, and safety. The preference for continuous linear trails and gravel surfaces remained consistent across these events.

The final events at Southeast Steuben County Library on April 23rd and the GlassFest on May 25th had lower attendance, with 12 participants at the library and a non-traditional setup at the Wineglass event. These events primarily focused on providing informational overviews through scanned boards rather than direct participant engagement. Overall, the open house series revealed a strong community interest in the multi-use trail, with significant emphasis on safety, maintenance, and the desire for natural, non-paved trail surfaces.

POTENTIAL ROUTES

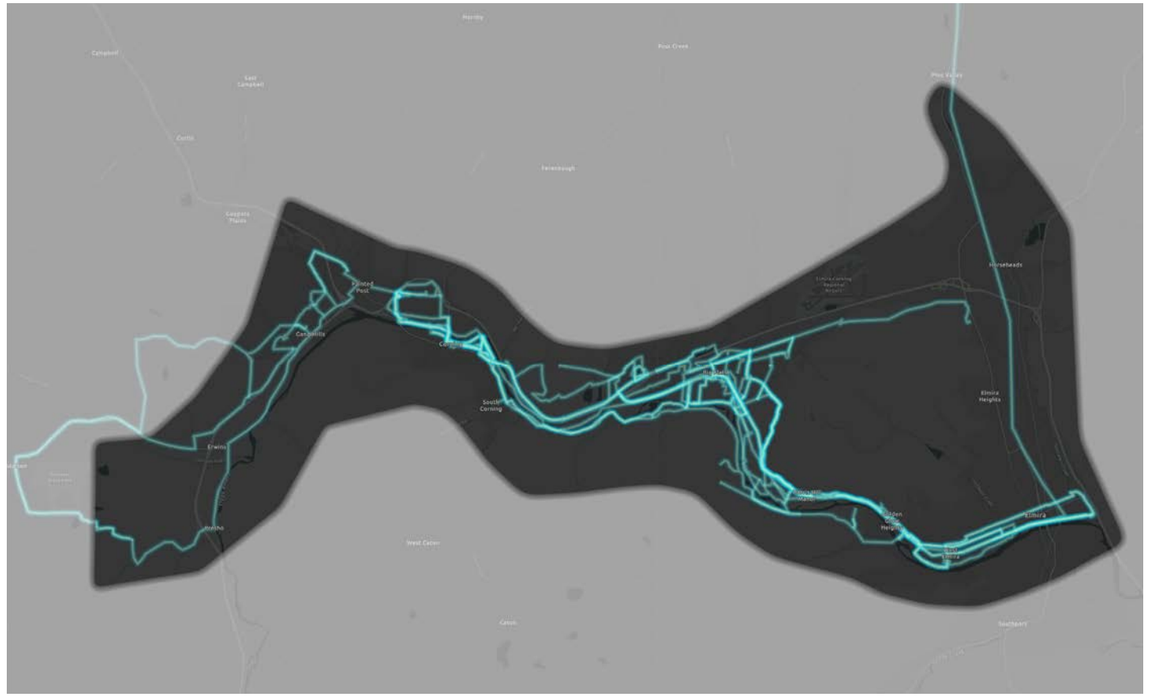
ASSESSMENT OF TRAIL ALTERNATIVES

The process to arrive at feasible trail alternatives was a collaborative and interactive process. The community and stakeholder engagement included investigating potential routes. The interactive community mapping tool provided a space for individuals to document their preferred routes and indicate any points of interest. The results from the community engagement are shown in Figure 11. A total of 92 segments were collected with the mapping tool.

The project team further refined potential routes with consideration of site suitability, connection to community assets, constructability, natural environment, built environment, population centers, and feedback from stakeholders and steering committee members. The next iteration of potential routes included the following trail segments as developed in May of 2024.

The trail segments were evaluated with a scoring matrix developed by the project team and reviewed with key stakeholders including municipal representatives and the Region 8 Flood Control Engineer. These conversations resulted in significant modifications in the Big Flats area to promote safety and limit conflicting land uses. The DEC conversation re-iterated the importance of entirely avoiding trail development upon levee structures and resulted in modifications in Elmira and Corning. Simultaneously, the news of the single largest Finger Lakes Land Trust acquisition in its 35-year history resulted in the Steering Committee directing the extension of the project area to the west and south to connect to the nearly 1,000 acres of protected lands. With these activities, the trail segments under consideration totaled 39 segments. Each of the segments were evaluated with the project scoring matrix to consider the following characteristics: Accessible for All, Connectivity, Support, Constructability, and User Experience.

Figure 11 - Community Potential Routes Map



FINAL PROJECT AREA TRAIL SEGMENTS

DESCRIPTION OF FINAL PROJECT AREA

Based on evaluations and feedback from the Steering Committee, trail segments in the project area are proposed in the following report sections and explored in detail in the following Trail Segment Summaries. The final project area extends from the eastern most City of Elmira to the western most Town of Addison, connecting populations in Chemung and Steuben counties.

The following analysis of proposed trail segments breaks the project area into four distinct regions to allow for targeted evaluation. The four areas include:

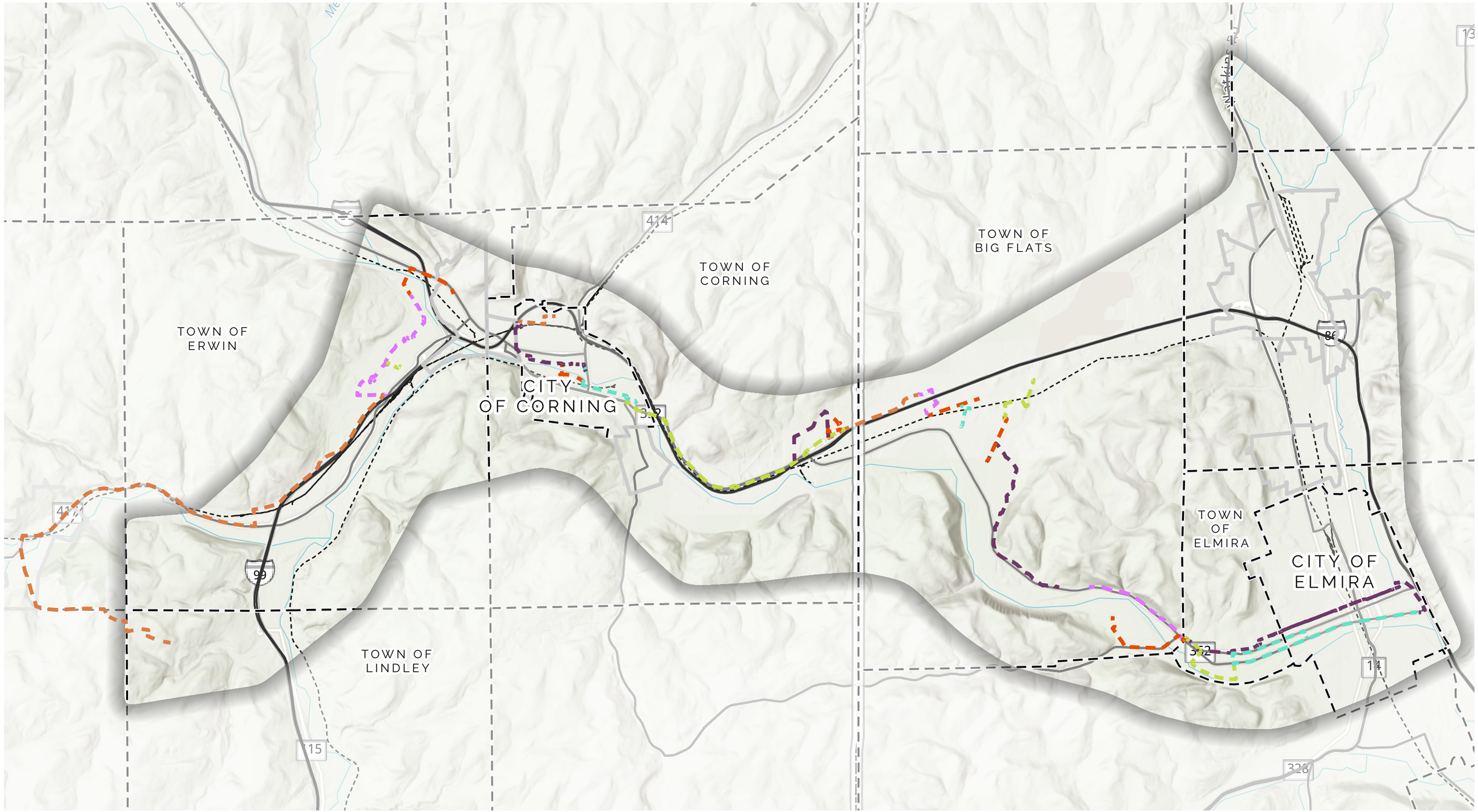
1. Elmira Area – composed of potential trail segments in the City of Elmira and Town of Elmira
2. Big Flats Area – composed of potential trail segments in the Town of Elmira and Town of Big Flats
3. Corning Area – composed of potential trail segments in the Town of Corning, City of Corning, and Village of Riverside
4. Erwin Area – composed of potential trail segments in the Town of Lindley, Town of Tuscarora, Town of Addison, Village of Addison, Town of Erwin, and Village of Painted Post.

Please refer to Appendix C for a detailed summary of segment information including, section number, trailheads, address, tax parcels, number of tax parcels crossed, number of owners, zoning, environmental considerations, bridges, road crossings, and mileage. Refer to the scoring matrix below for a breakdown of each segments scoring of accessible for all, connectivity, support, constructability, and user experience. Please refer to the below sections for detailed information about the individual trail segments, categorized by project area.

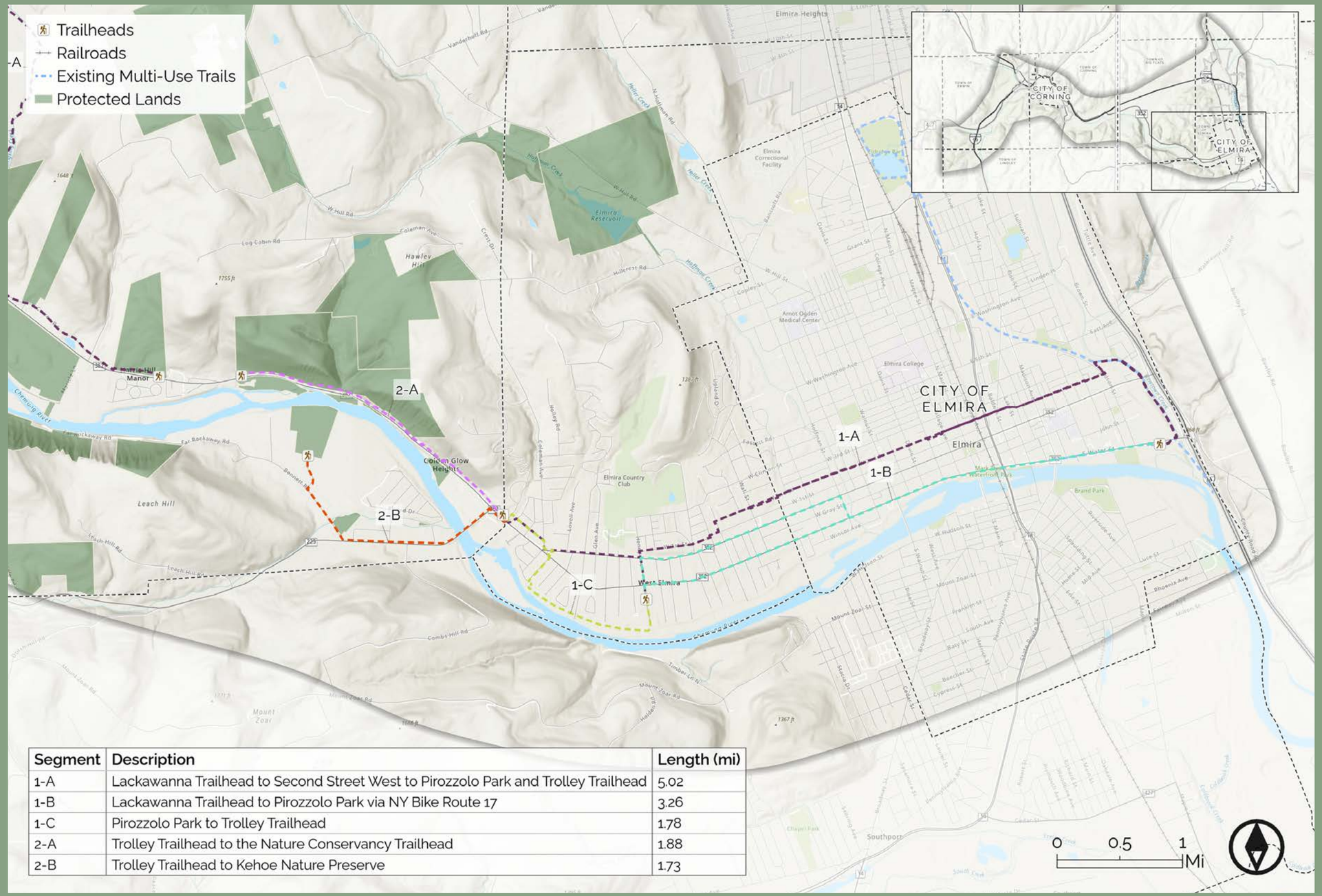
Each trail segment summary report presented below includes the following information:

- Trailheads
- Points of Interest
- Opportunities
- Challenges
- Description
- Property Owner Information
- Built Environment
- Environmental Considerations
- Permitting Considerations
- Summary Table including:
  - Segment ID
  - Length
  - Trailheads
  - Trail Users (including pedestrians, cyclists, and ADA compliant)
  - Trail Type
  - Road Crossings
  - Bridges Needed
  - Parcel Count
  - Owner Count
  - Cost Estimate
  - Total Score

Figure 12 - Final Proposed Trail Segments, August 2024

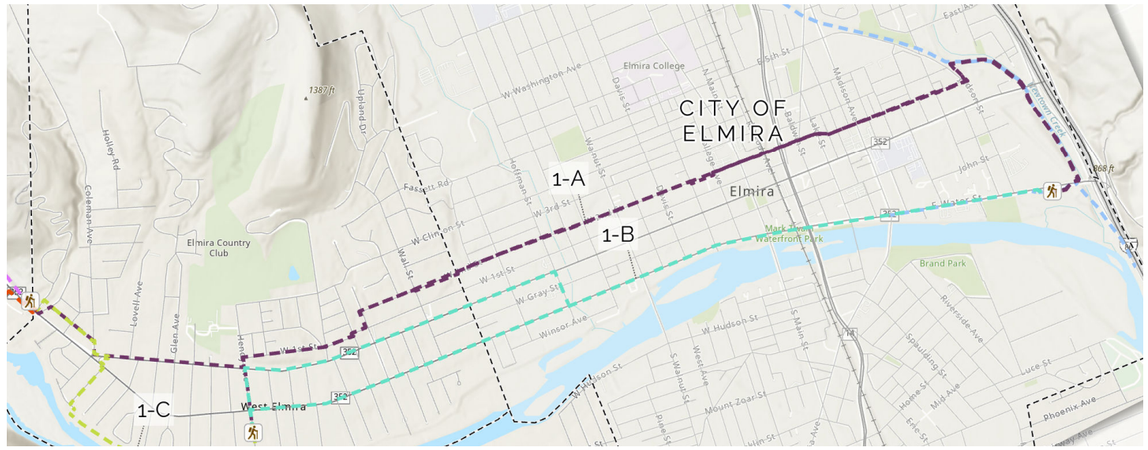


ELMIRA AREA TRAIL SEGMENTS



Segment	Description	Length (mi)
1-A	Lackawanna Trailhead to Second Street West to Pirozzolo Park and Trolley Trailhead	5.02
1-B	Lackawanna Trailhead to Pirozzolo Park via NY Bike Route 17	3.26
1-C	Pirozzolo Park to Trolley Trailhead	1.78
2-A	Trolley Trailhead to the Nature Conservancy Trailhead	1.88
2-B	Trolley Trailhead to Kehoe Nature Preserve	1.73

SEGMENT 1-A: LACKAWANNA TRAILHEAD TO SECOND STREET WEST TO PIROZZOLO PARK AND TROLLEY TRAILHEAD



Trailheads

Existing Lackawanna Trailhead
900 East Water Street
-76.786010, 42.089951
City of Elmira

Pirozzolo Park
1255 West Water Street
-76.845024, 42.076724
Town of Elmira

Proposed Trolley Trailhead
1890 West Water Street
-76.862442, 42.084726
Town of Elmira

Points of Interest

Lackawanna Trail, Kennedy Valve facility, Beecher Elementary School, SUNY Corning – Academic and Workforce Development, Hendy Avenue Elementary School, Pirozzolo Park, and Elmira Country Club. Grove Street Boat Launch, Fitch's Bridge Boat Launch. This trail also offers access to privately owned and small business opportunities for restaurants, necessities, and shopping.

Opportunities

Develop approximately 5.0 miles of the Chemung River Greenway network that crosses parcels owned by the City of Elmira, Town of Elmira, and private owners to connect the Greenway to the existing Lackawanna Trail. For an excursion, drop south on Grove Street to the Chemung River Grove Street boat launch, or follow to the end and head south to the Fitch's Bridge boat launch. Second Street offers between one-tenth to one-fourth of the average annual daily traffic as compared to the NYS Bike Route 17 on Church and Water Street. Second Street also offers wide roadways, small businesses, and public art.

Challenges

Landowner permission/easements, although the route mainly utilizes the roadway ROW, the trail alignment is dependent on private landowner easements where alternate routes may need to be considered. Other challenges that may arise is the safety of the trail users crossing the urban streets of Elmira. Trail amenities could be enhanced at the existing Lackawanna trailhead, access to amenities at Pirozzolo Park is provided by spur.

Trail Segment Information for Route 1-A Lackawanna Trailhead to Trolley Trailhead	
Trail Segment ID	1-A
Length (Miles)	5.02
Length On-Road (Miles)	4.04
Length Off-Road (Miles)	0.98
Segment Access / Trailhead	Lackawanna Trailhead, Pirozzolo Park, Trolley Trailhead
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Existing Sidewalks Marked Bike Path Buffered Multi-Use Trail Off-Road Multi-Use Trail
Road Crossings	45
Bridges Needed	0
Parcel Count	4
Owner Count	4
Construction Cost Estimate	$4,605,015
Land Acquisition / Easements	$0
Soft Cost Subtotal	$1,218,975
Total Cost Estimate	**$4,605,015**

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail beings at the existing Lackawanna trailhead located at 900 East Water Street in Elmira across the street from Kennedy Valve. The trailhead offers plenty of parking spaces for hikers to keep their cars as they explore the Chemung River Greenway but currently does not offer any amenities. From the Lackawanna Trailhead, the route travels north under East Water Street along the existing Lackawanna Trail for about 1 mile before transitioning into the new proposed spur off of the Lackawanna trail near Judson Street. Once the route crosses Judson Street, it continues 2.5 miles west along 2nd Street. 2nd Street has existing sidewalks and bike lane markings or buffered bikeways are recommended. The urban sidewalks end at Guinnip Avenue. 2nd Street is non-contiguous and routs south on Demarest Parkway. The trail then takes a quick right onto West 1st Street for 0.5 miles. The trail then travels south on Hendy Avenue before diverting into two separate directions. The first direction continues south along Hendy Avenue 0.25 miles towards Pirozzolo Park located behind the Town of Elmira Municipal Buildings. The second option is to continue traveling west along West Church Street for 0.50 miles and then turning north onto Coleman Avenue before traveling northeast on Haines Terrace for 0.25 miles. The route continues through a private parcel across Clark's Glen before completing at the proposed Trolley Trailhead. An alternate to constructing a new bridge crossing is to provide marked roadway or buffered trail in the ROW between Rustic Ave and the Trolley Trailhead at the Town of Elmira Highway facilities. The Trolley Trailhead proposes 4 parking spots for vehicles and will provide information and safety signage. An alternate to the Trolley Trailhead as an end point would be the existing Fitch's Bridge boat launch on the riverside, requiring a pedestrian crosswalk and signage to cross West Water Street.

Property Owner Information

- Roadway Rights of Way
- City of Elmira
- Town of Elmira
- Private Owners

SEGMENT 1-A: LACKAWANNA TRAILHEAD TO SECOND STREET WEST TO PIROZZOLO PARK AND TROLLEY TRAILHEAD

Built Environment

This trail segment allows for different opportunities of trail designs due to the different scenarios of wide road segments, heavy traffic urban environment, and quiet residential environment. The different trail design opportunities are listed below:

- Shared Roadway
- Sidewalks
- Marked Shared Roadway
- Signed Shared Roadway
- On Street Bike Lane
- Potential Pedestrian Bridge over Hendy Creek

Environmental Considerations

- Disadvantaged community
- Environmental remediation sites
- Endangered and threatened plants and animals
- Historic area
- Crossing of a Creek
- Flood Zones X, AE

Permitting Considerations

- City of Elmira Zoned General Industrial, Conservation, Gateway Commercial, Residential 1-4 Family, Central Commercial, Neighborhood Commercial, Residential 1 Family.
- Town of Elmira Zoned Residential Low Density, Residential Moderate Density, Neighborhood Business.
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- NYSDOT: Road crossing and work within ROW
- Local Roadway Permit
- NYSDEC Construction Permit
- NYSDEC Article 24 Permit
- Joint Permit Application

Existing footpath at proposed location of Lackawanna Trail spur near Judson Road to Second Street.

Second Street existing sidewalk, street art, opportunity for buffered shared use trail.

Second Street at Euclid Ave, wide roadway, no sidewalk, opportunity for buffered shared use trail.

Judson Road, new pedestrian crossing to Second Street at Beecher Elementary School.

Second Street at Davis Street, existing pedestrian sidewalks and crosswalks. Opportunity for bike lanes.

Pirozzolo Park located behind municipal buildings in Town of Elmira.

SEGMENT 1-B: LACKAWANNA TRAILHEAD TO PIROZZOLO PARK VIA NY BIKE ROUTE 17

Trailheads

Existing Lackawanna Trailhead
900 East Water Street
-76.786010, 42.089951
City of Elmira

Pirozzolo Park
1255 West Water Street
-76.845024, 42.076724
Town of Elmira

Points of Interest

Lackawanna Trail, Kennedy Valve facility, East Water Street Park with Norm Hatch Municipal Field, Hendy Avenue Elementary School, and Pirozzolo Park. This trail also offers privately owned and small business opportunities for restaurants, necessities, and shopping.

Opportunities

Develop approximately 5.0 miles of the Chemung River Greenway network to connect the East side of Elmira to all the recreational opportunities that Pirozzolo Park has to offer through parcels owned by the City and Town of Elmira. Utilize the existing State Bike Route 17, a signed, on-road bicycle route that stretches through the City of Elmira.

Challenges

Permission for roadway ROW work by the City and Town of Elmira and maintaining safety of the trail users crossing the urban streets of Elmira.

Property Owner Information

- Roadway Rights of Way
- City of Elmira
- Town of Elmira

Pirozzolo Park from Grove Street to Sullivan Street.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer mainly on-road opportunities. This trail will most likely consider using existing sidewalks as its means of getting pedestrian trail users through to urban streets of Elmira. The trail follows NYS Bike Route 17 through Elmira with a north and south segment due to the one-way traffic. The trail begins at the Lackawanna Trailhead located at 900 East Water Street across from Kennedy Valve, currently the Lackawanna Trailhead has no amenities for the trail users besides parking and signage. Traveling west on bike from the Lackawanna Trail, the user head west and proceed on West Water Street for 1.85 miles before traveling north on Hoffman Street for 2 blocks. The trail then proceeds to continue west on West Church Street for 1.25 miles then turns south on Hendy Avenue for 2 blocks before ending at Pirozzolo Park. The bike lane for eastbound traffic utilizes East and West Water Street for 3.26 miles from Pirozzolo Park located at 1255 West Water Street where amenities are offered such as parking and bathrooms to the Lackawanna Trail.

Pirozzolo Park, Town of Elmira

Water Street, City of Elmira with signed shared bikeway with sidewalks.

Trail Segment Information for Route 1-B Lackawanna Trailhead to Pirozzolo Park	
Trail Segment ID	1-B
Length (Miles)	4.87
Length On-Road (Miles)	4.56
Length Off-Road (Miles)	0.31
Segment Access / Trailhead	Lackawanna Trailhead, Pirozzolo Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Existing Sidewalk Marked Shared Roadway Signed Shared Roadway Multi-Use Trail
Road Crossings	24
Bridges Needed	0
Parcel Count	2
Owner Count	2
Construction Cost Estimate	$995,943
Land Acquisition / Easements	$0
Soft Cost Subtotal	$358,540
Total Cost Estimate	**$1,354,483**

Built Environment

This trail segment allows for different opportunities of trail designs due to the different scenarios of wide road segments, heavy traffic urban environment, and quiet residential environment. The different trail design opportunities are listed below:

- Sidewalk
- Marked Shared Roadway
- Signed Shared Roadway
- On Street shared bikeway along West Water Street and West Church Street where NY Bike Route 17 exists

Environmental Considerations

- Disadvantaged community
- Environmental remediation sites
- Endangered and threatened plants and animals
- Historic area
- Flood Zones X, AE

Permitting Considerations

- City of Elmira Zoned General Industrial, Conservation, Gateway Commercial, Residential 1: Family Large Lot
- Town of Elmira Zoned Residential Low Density, Residential Moderate Density, Residential High Density
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW.
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

SEGMENT 1-C: PIROZZOLO PARK TO TROLLEY TRAILHEAD

Trailheads

Pirozzolo Park
1255 West Water Street
-76.845024, 42.076724
Town of Elmira

Proposed Trolley Trailhead
1890 West Water Street
-76.862442, 42.084726
Town of Elmira

Points of Interest

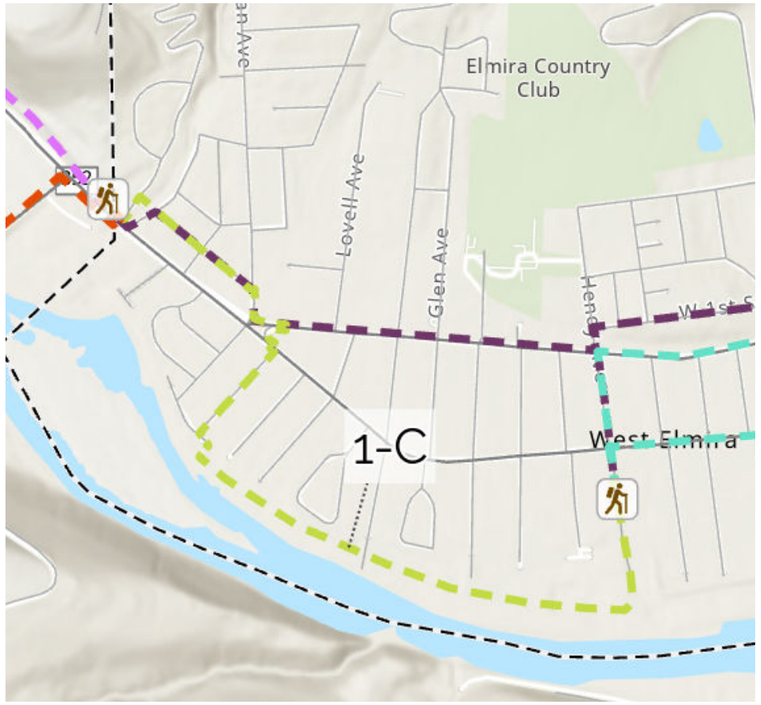
Pirozzolo Park, Chemung River

Opportunities

Develop approximately 1.78 miles of the Chemung Greenway network that will connect Pirozzolo Park with the proposed Trolley Trailhead through parcels owned by private landowners and the Town of Elmira. The proposed trail would provide structure and maintenance for the existing primitive footpath located along the riverside between Pirozzolo Park and Ohio Avenue.

Challenges

Landowner permission/easements, with the trail segment utilizing private parcels along the Chemung River, there may be some reluctance in extending easements; however, the new trail and amenities could provide safety and security advantages over the existing primitive footpaths and heavy vegetation. The heavy vegetation near the river, with an overgrowth of the invasive perennial weed Japanese knotweed (Fallopia japonica) will present a challenge for ongoing operation and maintenance.



Trail Segment Information for Route 1-C Pirozzolo Park to Trolley Trailhead	
Trail Segment ID	1-C
Length (Miles)	1.78
Length On-Road (Miles)	0.59
Length Off-Road (Miles)	1.19
Segment Access / Trailhead	Pirozzolo Park, Trolley Trailhead
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Signed Shared Roadway Sidewalk
Road Crossings	5
Bridges Needed	0
Parcel Count	20
Owner Count	15
Construction Cost Estimate	$4,332,029
Land Acquisition / Easements	$3,274
Soft Cost Subtotal	$1,589,168
Total Cost Estimate	**$5,924,471**

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail begins at Pirozzolo Park which provides recreational opportunities to the trial users along with amenities such as bathrooms. The trail travels approximately 0.45 miles south from the parking area, crossing between ball fields to the existing primitive Riverside Trail. Follow the trail along the Chemung River West for about 0.8 miles before turning onto Ohio Avenue. Enjoy the view of the river, opportunities for fishing, and benches to rest and watch the water and wildlife. Travel north to Ohio Avenue and up the roadway to the intersection with Water Street. Travel east for 40-feet to the pedestrian crosswalk, cross West Water Street before following the sidewalk around to cross West Church Street. There the segment meets segment 1-A and follows the same route to the proposed Trolley Trailhead. Please see "Chemung River Greenway Segment: Lackawanna Trailhead to Second Street West to Pirozzolo Park and Trolley Trailhead" for the description of Segment 1-A.

Property Owner Information

- Roadway Rights of Way
- Town of Elmira
- Private Owners

SEGMENT 1-C: PIROZZOLO PARK TO TROLLEY TRAILHEAD

Built Environment

This trail segment allows for different opportunities of trail designs due off-road sections along the Chemung River and on-road sections through a quiet residential area. The portion of the route along the river is subject to flooding and should be designed with consideration of routine flooding. In addition, a gate at either end of the river segment could be added to alert users to unsafe conditions. The different trail design opportunities are listed below:

- Shared Use Path
- Signed Shared Roadway
- Sidewalk

Environmental Considerations

- Endangered and threatened plants and animals
- Historic areas
- Wetlands
- Flood Zones X, AE

Permitting Considerations

- Town of Elmira Zoned Conservation, Residential Moderate Density, and Neighborhood Business
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

Existing primitive footpath alongside river.

Overgrowth of Japanese knotweed, presenting challenges for operation, maintenance, and security.

Existing swing and canopy alongside river.

River subject to high flow events, challenge for operation and maintenance.

SEGMENT 2-A: TROLLEY TRAILHEAD TO THE NATURE CONSERVANCY TRAILHEAD

Trailheads

Trolley Trailhead
1890 West Water Street
-76.863380, 42.084971
Town of Big Flats

The Nature Conservancy Trailhead
1165 NYS Route 352
-76.891500, 42.096026
Town of Big Flats

Points of Interest

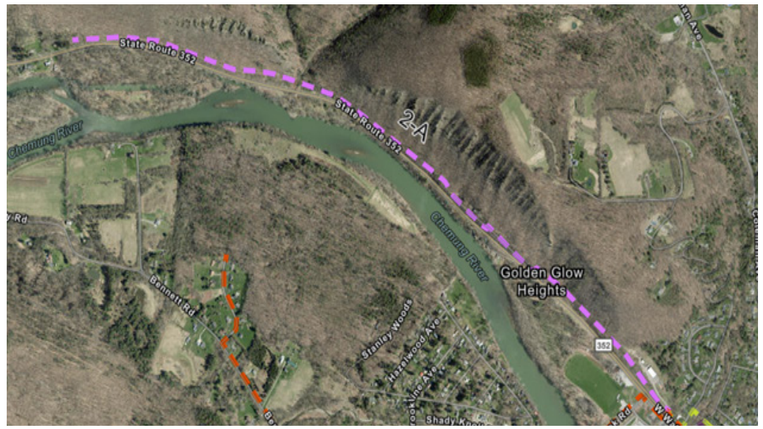
Former Elmira & Waverly Railyard Company electric trolley line and natural beauty of The Nature Conservancy protected lands.

Opportunities

Develop approximately 2.0 miles of the Chemung River Greenway network that crosses parcels owned by the Town of Elmira, The Nature Conservancy, and private owners to connect Elmira to The Nature Conservancy lands for recreational and conservation education. Construction new trails on The Nature Conservancy lands to provide greater accessibility in line with the organization's strategic goals.

Property Owner Information

- Town of Elmira
- The Nature Conservancy
- Private Owners



Challenges

Landowner permission/easements, although the route mainly utilizes The Nature Conservancy's land, the trail does require navigation around or easements along private landowners. The trail is proposed to be a shared use with the existing NYSEG utility, currently it appears that the utility has limited access for maintenance as there are many trees on the power lines. Another challenge is the steep and unstable slopes in the project area. Structural evaluation of the slopes will be required to access the necessary construction techniques and safety facilities. Finally, the protected nature and priority for conservation of the lands requires thoughtful design. In preliminary discussions with The Nature Conservancy, natural trail construction was advised with the recommendation to avoid hard surface trails.

Proposed trail along former Trolley Line.

Description

This Chemung River Greenway trail will offer an off-road trail only experience. The trail begins at the proposed Trolley Trailhead on the Town of Elmira owned parcel adjacent to the Highway Garage. Construction of the trailhead will require leveling or will result in parking at a higher elevation with steps to the start of the trail. The trail travels east-west along the former trolley line and adjacent but up the steep slope from NYS Route 352. The elevation of the trail bed provides relief from the proximity of the highway and allows for scenic views to the north of the large expanse of protected lands and mature forest, providing some views of the Chemung River to the south. From the proposed trailhead, at approximately 0.5 miles the trail encounters five privately held parcels with 3 landowners, these parcels will require navigation around or easements to proceed. The parcels are bordered on the south by Bohemia Lane, not listed on the Town of Big Flats local roads inventory and assumed to be private. Continuing east after the private parcels there is approximately 1-mile of The Nature Conservancy owned lands where the trail can continue west to the trail end at 1165 NYS Route 352. There are currently no amenities offered at either trailhead on this section, in an effort to maintain the natural conservation area in its simplest form. The area does abound with potential opportunities for an "off-grid" feeling through the beautiful scenery of The Nature Conservancy while still being close to NYS Route 352.

Trail Segment Information for Route 2-A Trolley Trailhead to the Nature Conservancy Trailhead	
Trail Segment ID	2-A
Length (Miles)	1.88
Length On-Road (Miles)	0
Length Off-Road (Miles)	1.88
Segment Access / Trailhead	Trolley Trailhead, Nature Conservancy Trailhead
Trail Users	Hikers
Type	Shared Use Path
Road Crossings	0
Bridges Needed	1
Parcel Count	7
Owner Count	3
Construction Cost Estimate	$6,174,415
Land Acquisition / Easements	$632
Soft Cost Subtotal	$2,243,789
Total Cost Estimate	**$8,418,836**

Built Environment

This trail segment allows for a new off-road trail, the width of single track versus a 10' wide multi use trail will be dependent on field investigations, slope stability, and permitted impact to the natural area. The grade of the trail may include slopes greater than ADA requirements and may require steps or switch backs to maneuver the slopes. The trail does cross a natural ravine with waters that pass through a single box culvert under NYS Route 352 (BIN C620206). Field analysis of this area is required to identify the potential facilities.

- Single Track Trail
- Multi-use Trail
- Slope Stabilization
- Protective fence/rails - potential
- Bridge - potential

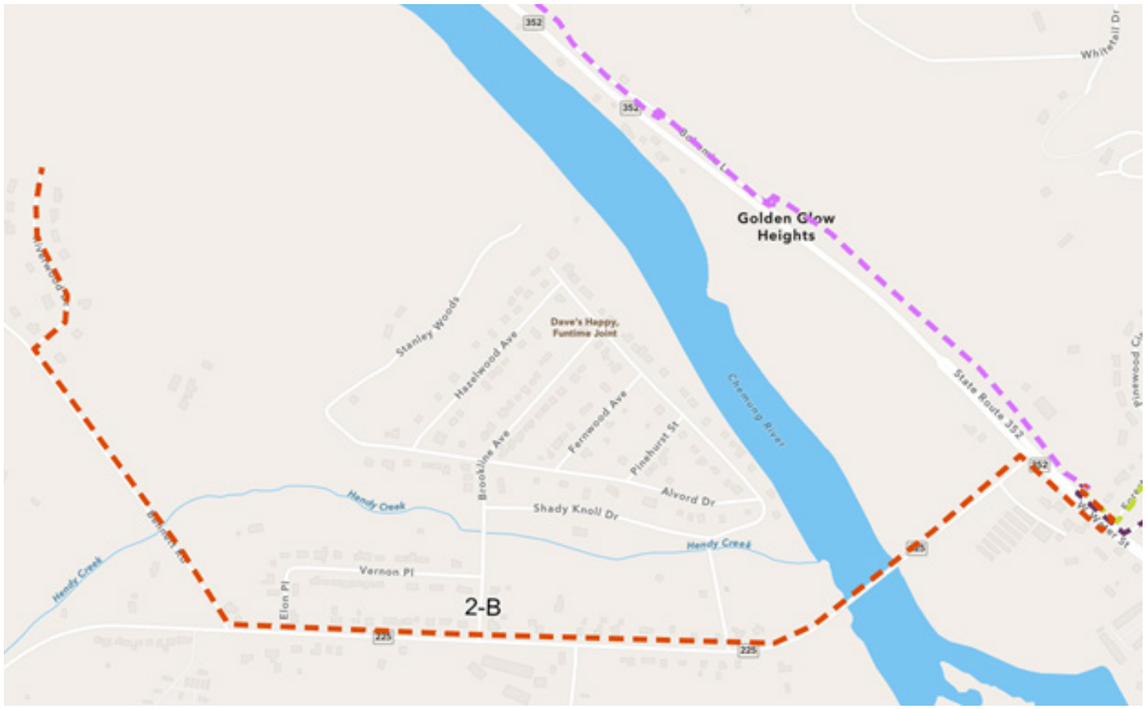
Environmental Considerations

- Endangered and threatened plants and animals
- Crossing of a River
- Flood Zones X, AE

Permitting Considerations

- Town of Elmira Zoned Business Neighborhood
- Town of Big Flats Zoned Rural and Conservation
- Municipality Approval: local site plan approval and land easements
- NYSDEC Construction Permit
- Joint Permit Application

SEGMENT 2-B: TROLLEY TRAILHEAD TO KEHOE NATURE PRESERVE



Trailheads

Proposed Trolley Trailhead
1890 West Water Street
-76.862442, 42.084726
Town of Elmira

Kehoe Nature Preserve
Bennett Road, Parcel 87.00-1-44.11
-76.884073, 42.089479
Town of Big Flats

Points of Interest

Point Golf Center, Fitch's Bridge Boat Launch, Golden Glow Heights Park on Bennett Road, Finger Lakes Land Trust Kehoe Nature Preserve with 43 acres and 1,480 feet of frontage on the Chemung River.

Opportunities

Develop approximately 2.0 miles of the Chemung River Greenway network to connect to Fitch's Bridge Boat Launch and the Kehoe Nature Preserve for learning and recreational opportunities.

Challenges

The Kehoe Nature Preserve is yet to have developed trails and signage, a fundraising campaign is underway to support stewardship of the preserve. This Chemung River Greenway route is proposed to utilize shared roadways and will require a new pedestrian crosswalk, and signed or marked roadways.

Trail Segment Information for Route 2-B Trolley Trailhead to Kehoe Nature Preserve	
Trail Segment ID	2-B
Length (Miles)	1.79
Length On-Road (Miles)	1.79
Length Off-Road (Miles)	0
Segment Access / Trailhead	Trolley Trailhead, Kehoe Nature Preserve
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Roadway Marked Shared Roadway Signed Shared Roadway
Road Crossings	5
Bridges Needed	1 - Existing
Parcel Count	1
Owner Count	1
Construction Cost Estimate	$260,648
Land Acquisition / Easements	$0
Soft Cost Subtotal	$93,833
Total Cost Estimate	**$354,481**

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road trails and connection to the off-road Kehoe Nature Preserve. The trail begins at the proposed Tolley Trailhead and crosses NYS Route 352 near the Fitch's Bridge boat launch, continue west to Hendy Creek Road. The on-road trail then travels approximately a 1-mile southwest along Hendy Creek Road before turning north onto Bennett Road. From Bennett Road the trail passes the Town of Big Flats Golden Glow Heights Park. Continue on Bennett Road and turn northwest onto Riverwood Drive to Kehoe Nature Preserve, located at the end of the road. The river is north 0.31 miles, and the preserve offers 1,480 linear feet of shoreline.

Property Owner Information

- Roadway Rights of Way
- Town of Elmira
- Town of Big Flats
- Finger Lakes Land Trust

Hendy Creek Road and NYS Route 352 Intersection.

Built Environment

This trail segment allows for different opportunities of trail designs due to the different scenarios of road widths and off-road segments. The different trail design opportunities are listed below:

- Pedestrian Crosswalk on NYS Route 352
- Shared Roadway
- Marked Shared Roadway
- Signed Shared Roadway

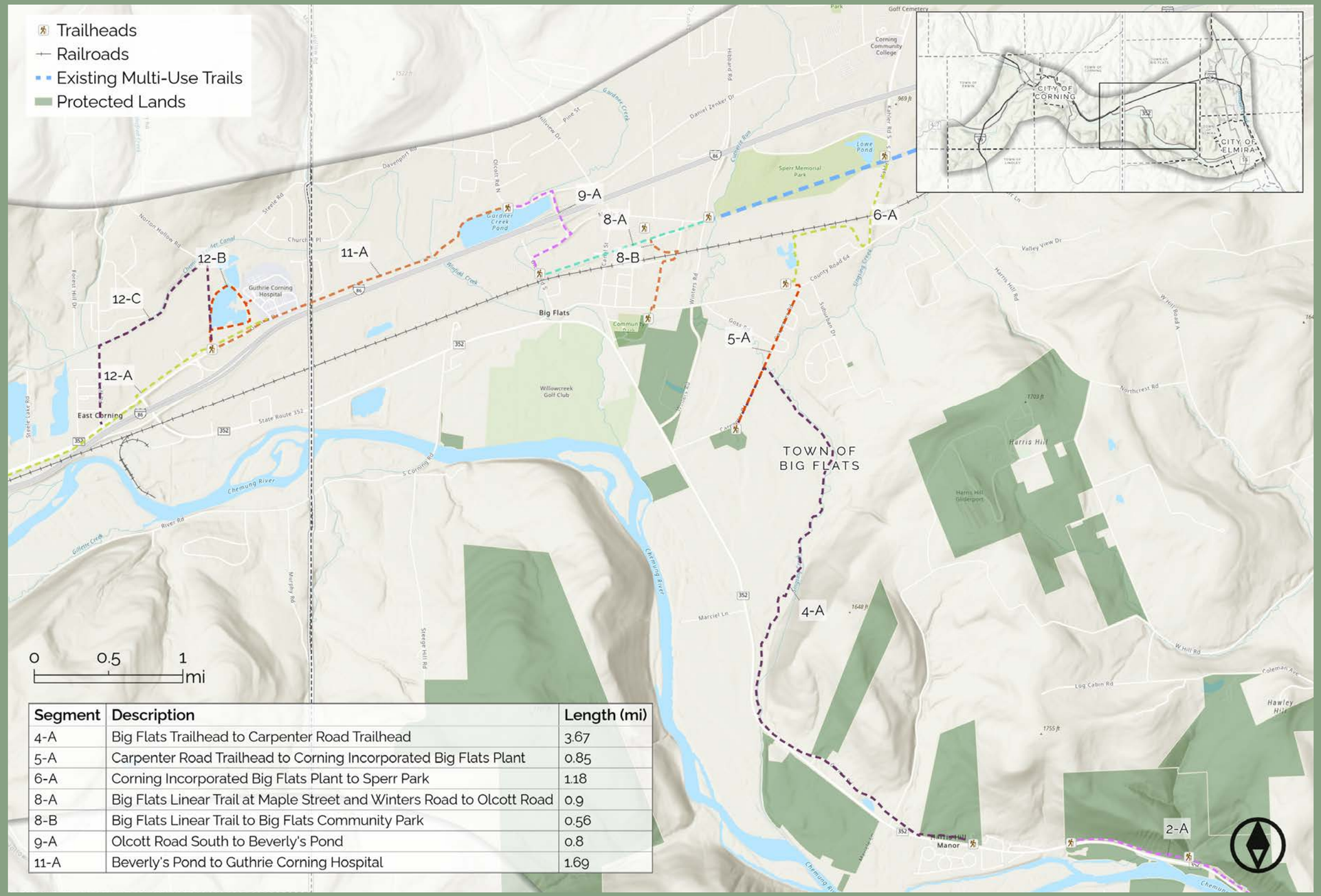
Environmental Considerations

- Endangered and threatened plants and animals
- Flood Zones X, AE

Permitting Considerations

- Town of Elmira Zoned Business Neighborhood
- Town of Big Flats Zoned Residential 2 and Conservation
- Municipality Approval: local site plan approval, roadside signs, work within right of way
- NYSDOT: Road crossing and work within ROW
- Local Roadway Permit
- NYSDEC Construction Permit

BIG FLATS AREA TRAIL SEGMENTS



Segment	Description	Length (mi)
4-A	Big Flats Trailhead to Carpenter Road Trailhead	3.67
5-A	Carpenter Road Trailhead to Corning Incorporated Big Flats Plant	0.85
6-A	Corning Incorporated Big Flats Plant to Sperr Park	1.18
8-A	Big Flats Linear Trail at Maple Street and Winters Road to Olcott Road	0.9
8-B	Big Flats Linear Trail to Big Flats Community Park	0.56
9-A	Olcott Road South to Beverly's Pond	0.8
11-A	Beverly's Pond to Guthrie Corning Hospital	1.69

SEGMENT 4-A: BIG FLATS TRAILHEAD TO CARPENTER ROAD

Trailheads

Big Flats Trailhead
2346 NYS Route 352
Town of Big Flats

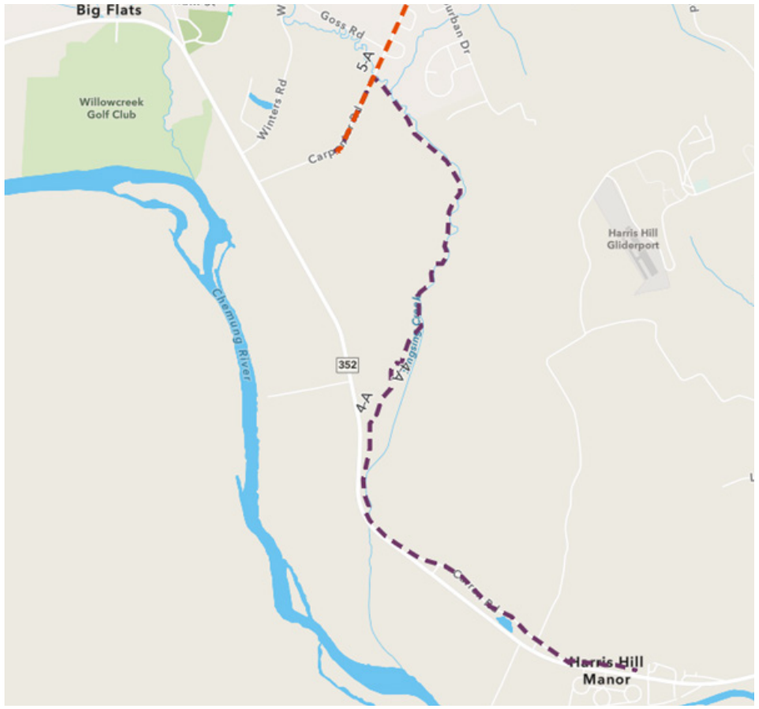
Carpenter Road Trailhead
66 Carpenter Road
Town of Big Flats

Points of Interest

Conservation areas, quiet rural road with pond and agricultural views, riverside trail, and access to the new Dippity Do Dahs Homemade Ice Cream.

Opportunities

Take a respite from the busy day with a trail that passes through undisturbed forest, view of Chemung River Palisades, scenic pastoral views, and riverside trail. And don't forget the ice cream! New off-road multi-use trail on 88-acre Town of Big Flats lands and 136-acre DEC Wildlife Management area, with connection to 80-acre Finger Lakes Land Trust landholding.



Challenges

Landowner permission/easements, although the route takes advantage of public conservation areas, the route requires easements on private property. To minimize private easements, the route follows Curren Road to the easternmost area and then proposes buffered trail construction or side path within the Route 352 ROW or along privately held lands. Sing Sing Creek intersects with Route 352, passing under the roadway. The right of way in this arrow is narrow, the trail may require a new pedestrian bridge to cross Sing Sing Creek near Route 352. The route follows Sing Sing Creek along public and private lands to Carpenter Road. Trail construction along the Creek will require adequate separation distances as the lands in this area are level and the creek meanders and is subject to channel changes.

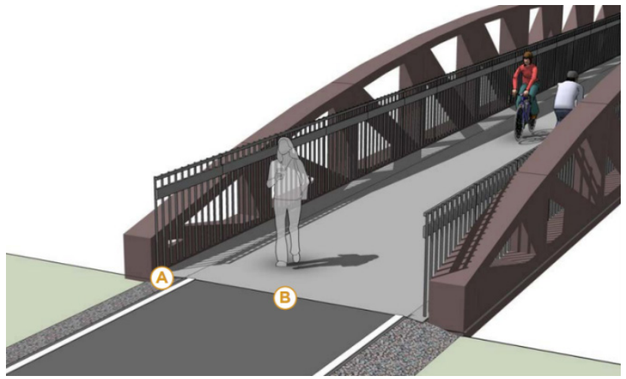
Trail Segment Information for Route 4-A Big Flats Trailhead to Carpenter Road	
Trail Segment ID	4-A
Length (Miles)	3.67
Length On-Road (Miles)	1.12
Length Off-Road (Miles)	2.55
Segment Access / Trailhead	Big Flats Trailhead at 2346 Route 352, Carpenter Road
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Shared Roadway Buffered Trail
Road Crossings	1
Bridges Needed	1
Parcel Count	14
Owner Count	9
Construction Cost Estimate	$3,398,680
Land Acquisition / Easements	$5,500
Soft Cost Subtotal	$1,254,275
Total Cost Estimate	**$4,658,455**

Description

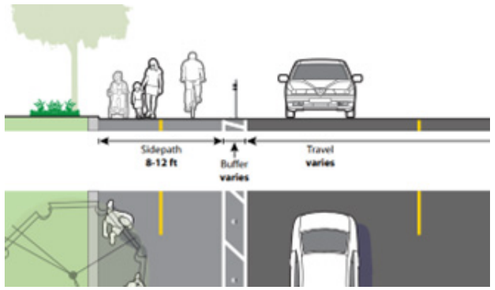
Beginning at the nearly 90-acre parcel owned by the Town of Big Flats, travel west along a dedicated shared use path wooded trail for 0.25 miles to connect to Curren Road. Travel west on Curren Road, a shared roadway, with scenic farm and valley views for 0.8 miles passing a pond, the future site of Dippity Do Dahs creamery, and 80-acres of Finger Lakes Land Trust conservation lands. At the end of Curren Road, travel on a protected buffered trail alongside State Route 352 for 0.25 miles before turning north to following the winding Sing Sing Creek. Alternate routes may be considered as partnerships with private landowners are investigated and formed. Follow the meandering creek for 2-miles and then turn south onto Carpenter Road to reach the Carpenter Road Trailhead. Alternatively, turn north onto Carpenter Road to Access the Corning Big Flats Plant Trailhead along the Chemung River Greenway segment 5-A.

Property Owner Information

- Roadway Rights of Way
- Town of Big Flats
- DEC People of NYS
- Private Owners



Trail bridge.



Buffered trail.

SEGMENT 4-A:
BIG FLATS TRAILHEAD TO CARPENTER ROAD

Built Environment

This trail segment allows for different opportunities of trail designs due to open public lands, rural roadways, and the need to develop a buffered or separated trail along the high AADT Route 352. The different trail design opportunities are listed below:

- Side Path
- Shared Roadway
- Marked Shared Roadway
- Signed Shared Roadway
- Buffered Trail
- Separated Trail
- Pedestrian bridge crossing Sing Sing Creek
- Pedestrian road crossing on Harris Hill Road, Curren Road Extension

Environmental Considerations

- Rare plants and animals
- Crossing of a River
- Flood Zone X, AE

Permitting Considerations

- Big Flats Zoned Conservation, Rural
- Municipality Approval: local site plan approval, land easements, pedestrian road crossings, roadside signs, work within ROWNYSDOT: ROW Buffered Trail
- NYSDEC Construction Permit
- NYSDEC Protection of Waters Permit

Curren Road, proposed shared roadway.

View from Curren Road of Chemung River Palisades, cliffs that look like folded curtain and are home to diverse habitat and wildlife including the Bald Eagle.

SEGMENT 5-A: CARPENTER ROAD TO CORNING INCORPORATED BIG FLATS PLANT

Trailheads

Carpenter Road Trailhead
66 Carpenter Road
Big Flats

Corning Incorporated Big Flats Plant
673 County Route 64
Big Flats

Points of Interest

Quiet rural road with agricultural vistas, views of Harris Hill and gliders, river crossing trail.

Opportunities

Soak in the agricultural vistas, corn fields, old farmhouse and tree-lined roadway south of Sing Sing Creek. Cross Sing Sing Creek on a new pedestrian bridge and pass through a quiet residential area to a farm field. Opportunity for utilizing the Corning Incorporated farm field south of Country Route 64 for an off-road section of trail.

Challenges

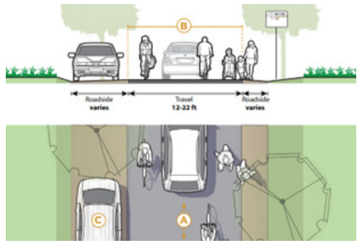
Trail construction over the Creek will require new pedestrian bridge with adequate clearance for uninterrupted flow of water during all wet-weather conditions. Sing Sing creek is known to be subject to flooding its banks, the flats along the riverbed result in variation in the primary water course. Crossing County Route 64 will require a new crosswalk and safety features to protect crossings.

Description

Beginning at the Town of Big Flats owned lands at 66 Carpenter Road, travel north along the tree lined quiet shared use Carpenter Road. This local roadway has very low usage and is able to maintain service for local traffic volumes, maintain local aesthetics, and provides opportunity for shared roadway with walk/bike uses while maintaining the current low volume vehicle use. Continue north on Carpenter road to cross on the new pedestrian bridge over the meandering Sing Sing Creek. Continue north on the shared use Carpenter Road North, alternatively, the path can divert from Carpenter Road and head west to the Corning Property Management lands, where opportunities for an off-road section could be created. Travel north to County Route 64 and utilize the newly created pedestrian crosswalk to enter the Corning Incorporated lands north of County Route 64. The Big Flats plant offers ample parking and access to the trail for employees and trail users alike.

Property Owner Information

- Shared Roadway
- Town of Big Flats
- Corning Incorporated



Shared Walk/Bike Roadway.

Road crossing.

Trail Segment Information for Route 5-A Carpenter Road to Corning Incorporated Big Flats Plant	
Trail Segment ID	5-A
Length (Miles)	0.85
Length On-Road (Miles)	0.85
Length Off-Road (Miles)	0
Segment Access / Trailhead	66 Carpenter Road, 673 County Route 64
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Roadway Pedestrian Bridge
Road Crossings	4
Bridges Needed	1
Parcel Count	2
Owner Count	2
Construction Cost Estimate	$468,396
Land Acquisition / Easements	$8,500
Soft Cost Subtotal	$200,873
Total Cost Estimate	**$677,769**

Carpenter Road, proposed shared roadway.

Built Environment

This trail segment allows for shared roadways and dedicated side path. The different trail design opportunities are listed below:

- Side Path
- Shared Roadway
- Marked Shared Roadway
- Signed Shared Roadway
- Pedestrian bridge crossing Sing Sing Creek
- Pedestrian road crossing on County Route 64

Environmental Considerations

- Endangered and threatened plants and animals
- Crossing of a River
- Flood Zone X, AE

Permitting Considerations

- Big Flats Zoned Conservation, Residential 1, Industrial
- Municipality Approval: local site plan approval, land easements, pedestrian road crossings, roadside signs, work within ROW
- Chemung County pedestrian crosswalk
- NYSDEC Construction Permit
- NYSDEC Protection of Waters Permit
- NYSDEC Freshwater Wetlands Permit
- Joint Permit Application

View of tree lined Carpenter Road, proposed shared roadway.

SEGMENT 6-A: CORNING INCORPORATED BIG FLATS PLANT TO SPERR PARK

Trailheads

Corning Incorporated Big Flats Plant
673 County Route 64
Town of Big Flats

Sperr Memorial Park
Kahler Road
Town of Big Flats

Points of Interest

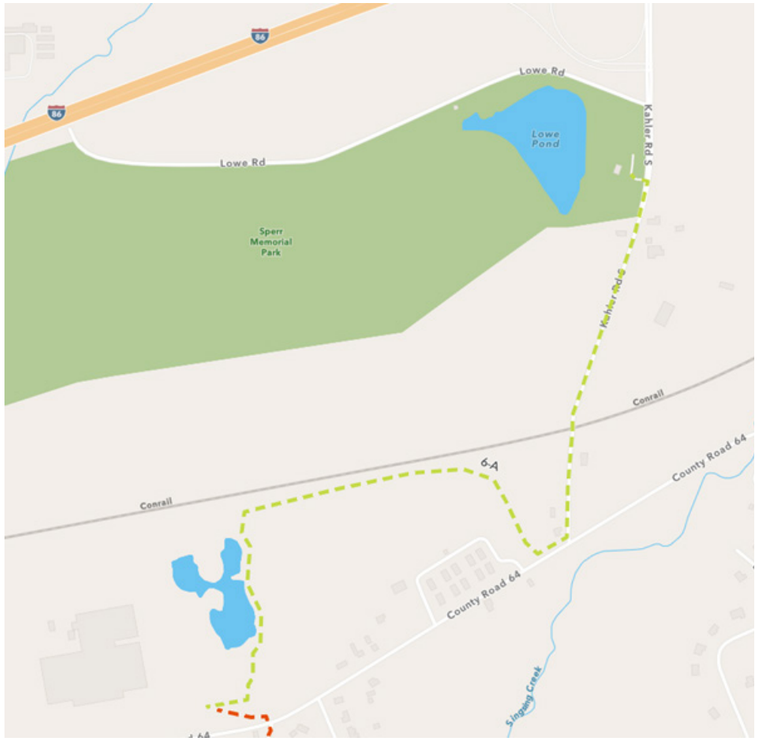
Corning Incorporated Big Flats Plant, wetlands and pond, early successional forest, Sperr Memorial Park, Big Flats Linear Trail, Airport Corporate Park South

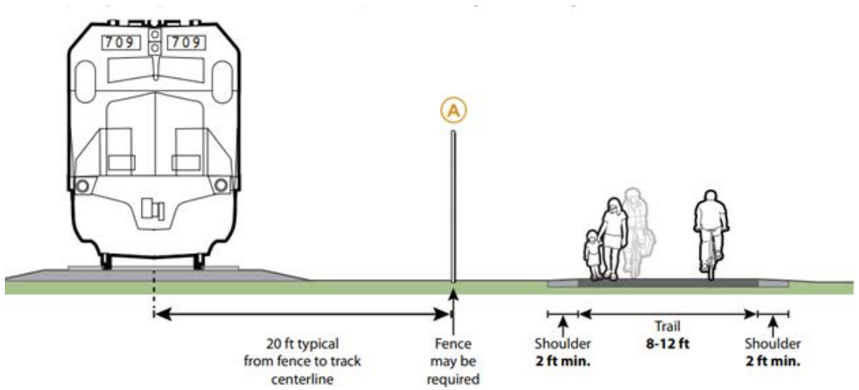
Opportunities

Connect residential and businesses south of the Norfolk Southern rail to the north with access to the Big Flats Linear Trail and Sperr Park. The Corning Incorporated parcel is 65 acres with 33 acres undeveloped with a pond, wetlands, and scrub. Kahler Road lacks a motor vehicle bridge and is therefore a very low use rural roadway that lends itself to a shared use roadway.

Challenges

The Corning Incorporated parcel is adjacent to the Norfolk Southern Line, there is adequate area to construct a dedicated shared use path away from the rail, traveling west from the Plant there are private landowners, the preferred route is to travel away from Route 64, however, a buffered trail may be required to gain access to Kahler Road. A new pedestrian bridge with adequate clearance for a two-deck train car and with fall protection is required to pass over the Norfolk Southern railroad.





Rail-with-Trail.

Trail Segment Information for Route 6-A Corning Incorporated Big Flats Plant to Sperr Park	
Trail Segment ID	6-A
Length (Miles)	1.18
Length On-Road (Miles)	0.32
Length Off-Road (Miles)	0.86
Segment Access / Trailhead	673 County Route 64, Sperr Park at Kahler Road
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Shared Roadway Pedestrian Bridge Potential Buffered Path
Road Crossings	0
Bridges Needed	1
Parcel Count	5
Owner Count	5
Construction Cost Estimate	$3,134,482
Land Acquisition / Easements	$15,000
Soft Cost Subtotal	$1,165,914
Total Cost Estimate	**$4,315,396**

Description

Begin at Corning Incorporated Big Flats Plant and travel east and north for 0.4 miles through a successional forest and small ponds. Head east 0.25 miles, proximity to the rail will determine the need for a fence adjacent to the active railway. Turn south for 600 feet to return alongside County Route 64 and travel east 200 feet to meet Kahler Road South. Travel north on Kahler Road South, cross the railroad on the new pedestrian bridge and continue north for another 0.3 miles to Sperr Memorial Park. The route will provide connection over the rail where the former Kahler Road vehicular bridge once provided connectivity. The former vehicular bridge was removed and not replaced due to the necessary clearance required for the modern freight trains. The proposed pedestrian bridge would require an arched shape to allow the necessary clearance, while maintaining safety with fall prevention design. Alternatively, the County is planning a new extension to the Airport Corporate Park South further to the east of the proposed railroad crossing on Kahler Road, this new route could be constructed with shared use amenities in place replacing the need for a new pedestrian bridge over the rail.

Property Owner Information

- Corning Incorporated
- Private Landowners
- Roadway ROW
- Shared Roadway

SEGMENT 6-A:
CORNING INCORPORATED BIG FLATS PLANT TO SPERR PARK

Built Environment

This trail segment allows for shared roadways and dedicated multi-use trail. The different trail design opportunities are listed below:

- Dedicated Shared Use Path
- Shared Roadway
- Signed Shared Roadway
- Buffered Roadway along CR 64
- Fence along active Norfolk Southern dependent on proximity and route
- Pedestrian bridge crossing Norfolk Southern Rail

Environmental Considerations

- Endangered and threatened plants and animals
- Proximity to Environmental Remediation Site
- Wetlands
- Flood Zone X

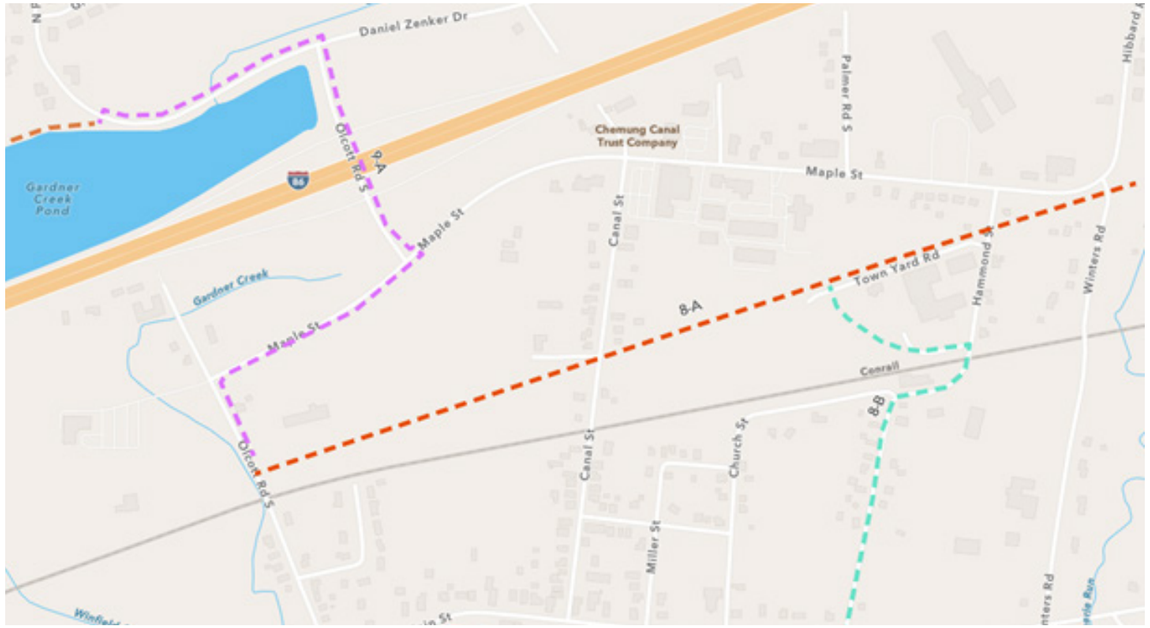
Permitting Considerations

- Big Flats Zoned Industrial, Residential 2, Business Non-Retail, Airport Business Park
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Norfolk Southern Approval
- NYSDEC Construction Permit
- County Roadway Permit
- NYSDEC Freshwater Wetlands Permit
- Joint Permit Application

Corning Incorporated lands, Big Flats Plant.

Kahler Road North, location of proposed pedestrian bridge crossing railway.

SEGMENT 8-A:
BIG FLATS LINEAR TRAIL AT MAPLE STREET AND WINTERS ROAD TO OLCOTT ROAD SOUTH



Trailheads

Big Flats Linear Trail at Maple Street and Winters Road
-76.927045°, 42.140824°
Town of Big Flats

Big Flats Linear Trail at Olcott Road South
-76.943395°, 42.136998°
Town of Big Flats

Points of Interest

Sperr Memorial Park, Big Flats Linear Trail, Big Flats Community Center, Big Flats Elementary School, Minier's Plaza, Big Flats Library

Opportunities

Extend the well-utilized and popular Big Flats Linear Trail from the current trail ending at the corner of Winters Road and Maple Street with a pedestrian bridge and continue west for 0.9 miles to the intersection with Olcott Road. The land for this segment is owned by the Town of Big Flats. Remaining road crossing are at-grade and will simply require marking, bollards, and signage. Parking exists at the Big Flats Linear Trail parking lot on Maple Street.

Challenges

The trail is raised near Winters Road and Maple Street and the intersection has a blind approach, it is recommended to install a pedestrian bridge over the roadway at clearance greater than or equal to the rail bridge on Winters Road south of the proposed pedestrian bridge.

Trail Segment Information for Route 8-A Big Flats Linear Trail at Maple and Winters to Olcott Road South	
Trail Segment ID	8-A
Length (Miles)	0.9
Length On-Road (Miles)	0
Length Off-Road (Miles)	0.9
Segment Access / Trailhead	Maple Street / Winters Road, Olcott Road South
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Pedestrian Bridge
Road Crossings	3
Bridges Needed	1
Parcel Count	1
Owner Count	1
Construction Cost Estimate	$1,572,630
Land Acquisition / Easements	$0
Soft Cost Subtotal	$566,147
Total Cost Estimate	**$2,138,777**

Description

Begin at the existing Big Flats Linear Trail parking area at the corner of Maple Street and Winters Road, walk up a grade to the level linear trail. For a level begin and ending to the trail, approach from Olcott Road. From the Maple Street parking area, head east over the new pedestrian bridge over Winters Road and continue west. At 0.15 miles from the start, there is an at-grade road crossing of Hammond Street. Continue west passing the Big Flats Community center, and then crossing Canal Street at grade, the final stretch west will bring to the new Olcott Road trailhead. You will find an extension to the Big Flats Community Center from this segment, from which you can easily access the Minier's Plaza and Big Flats Library. There is also an extension south to the Big Flats Community Park from the main trail near Hammond Street. This section of trail brings the user from the natural environment of the ponds and wetlands to the Big Flats community center with access to community resources including shopping, mail, school, medical offices, banking, and more.

Property Owner Information

- Town of Big Flats

At-grade Road Crossing with Signage.

Typical Overcrossing.

SEGMENT 8-A:
BIG FLATS LINEAR TRAIL AT MAPLE STREET AND WINTERS ROAD TO OLCOTT ROAD SOUTH

Built Environment

This trail segment allows for a dedicated multi-use trail. The different trail design opportunities are listed below:

- Dedicated Shared Use Path
- Roadway overcrossing at Winters Road
- Roadway At-grade Crossing at Hammond St
- Roadway At-grade Crossing at Canal St

Environmental Considerations

- Endangered and threatened plants and animals
- Proximity to Environmental Remediation Site
- Wetlands
- Flood Zone X/AE

Permitting Considerations

- Big Flats Zoned Town Center, Town Center 2
- Municipality Approval: local site plan approval, roadside signs, work within ROW
- NYSDEC Construction Permit
- County Roadway Permit
- NYSDEC Freshwater Wetlands Permit
- Joint Permit Application

Intersection of Maple Street and Winters Road, location of proposed roadway overcrossing.

Olcott Road looking east along proposed trail corridor.

SEGMENT 8-B: BIG FLATS LINEAR TRAIL TO BIG FLATS COMMUNITY PARK

Trailheads

Big Flats Linear Trail near Big Flats Community Center
476 Maple Street
Town of Big Flats

Big Flats Community Park
1 Pavilion Drive
Town of Big Flats

Points of Interest

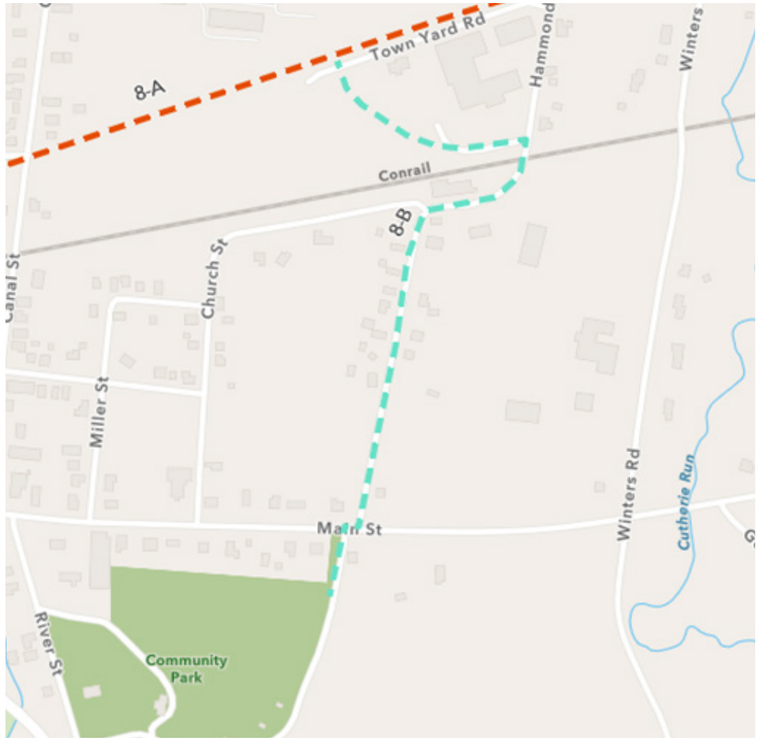
Big Flats Community Center, Big Flats Linear Trail, Big Flats Community Park, Big Flats Elementary School, Minier's Plaza, Big Flats Library

Opportunities

The Town of Big Flats identifies interest in encouraging connections between new developments and adjacent neighborhoods, this proposed trail segment provides connectivity from the Town of Big Flats Community Center south to the Big Flats Community Park. The area through which the trail will pass is targeted for redevelopment.

Challenges

The proposed segment will require crossing of the active Norfolk Southern rail, the rail is at grade on Hammond Street with an at-grade vehicle rail crossing. Presently, Hammond Street has an AADT of 305 and shared roadway is possible, however; with the additional rail crossing, a marked shared roadway for bicycles and side path for pedestrians with pedestrian railroad gate is recommended. Parallel to the active rail, some fencing may be recommended to protect trail users from the rail, delineate the crossing area, and promote safety. The route south of the rail on Hammond Street could be configured as a shared roadway. New pedestrian crosswalk and signage at the intersection of Hammonda Street and Main Street is recommended.



Trail Segment Information for Route 8-B Big Flats Linear Trail to Big Flats Community Park	
Trail Segment ID	8-B
Length (Miles)	0.56
Length On-Road (Miles)	0.37
Length Off-Road (Miles)	0.19
Segment Access / Trailhead	Big Flats Linear Trail near Big Flats Community Center, Big Flats Community Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Shared Roadway Rail Crossing
Road Crossings	2
Bridges Needed	0
Parcel Count	4
Owner Count	2
Construction Cost Estimate	$307,158
Land Acquisition / Easements	$7,500
Soft Cost Subtotal	$129,327
Total Cost Estimate	**$443,985**

Description

From the Big Flats Linear Trail near the Big Flats Community Center travel southeast on the new shared use path for approximately 500 feet. Travel along the west and south borders of 83 Hammond Street to towards the active rail. Rail-with-trail fencing along the rail to separate users from the rail. Continue east to the intersection with Hammond Street. Just south from arriving on Hammond Street there is an active rail crossing. The design is recommended to include pedestrian rail crossing features including a side path for pedestrians and pedestrian railroad gate. Continue south along Hammond Street for 0.34 miles to the intersection of Main Street (County Route 64). At the new signed and marked pedestrian crosswalk, cross Main Street to enter Big Flats Community Park at the northernmost Main Street park entrance near the ball fields.

Property Owner Information

- Town of Big Flats
- Private Landowner
- Norfolk Southern
- Roadway ROW
- Shared Roadway

Example Rail-with-Trail. (TrailLink.com)

Example rail crossing, adequate sight distance, advance notice of crossing, perpendicular to trail, smooth crossing surface. (Rails-to-Trails Conservancy)

SEGMENT 8-B:
BIG FLATS LINEAR TRAIL TO BIG FLATS COMMUNITY PARK

Built Environment

This trail segment allows for shared roadways and dedicated multi-use trail, and rail crossing. The different trail design opportunities are listed below:

- Dedicated Shared Use Path
- Shared Roadway
- Marked Shared Roadway
- Fence along active Norfolk Southern dependent on proximity and route
- Pedestrian rail crossing Norfolk Southern Rail
- Pedestrian road crossing at intersection of Hammond Street and Main Street (County Route 64)

Environmental Considerations

- Endangered and threatened plants and animals
- Proximity to Environmental Remediation Site, note DEC reports closed and no action
- Flood Zone X

Permitting Considerations

- Big Flats Zoned Town Center, Residential, Conservation
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Local Roadway Permit
- County Road Permit
- Norfolk Southern Approval
- NYSDEC Construction Permit

Hammond Street Railroad Crossing.

Intersection of Hammond Street and Main Street, Pedestrian Crossing.

SEGMENT 9-A: OLCOTT ROAD SOUTH TO BEVERLY'S POND

Trailheads

Olcott Road South New Trailhead
Near 50 Olcott Road South
-76.943417°, 42.136957
Town of Big Flats

Beverly's Pond
Near 3 Olcott Road North
-76.946625, 42.141722
Town of Big Flats

Points of Interest

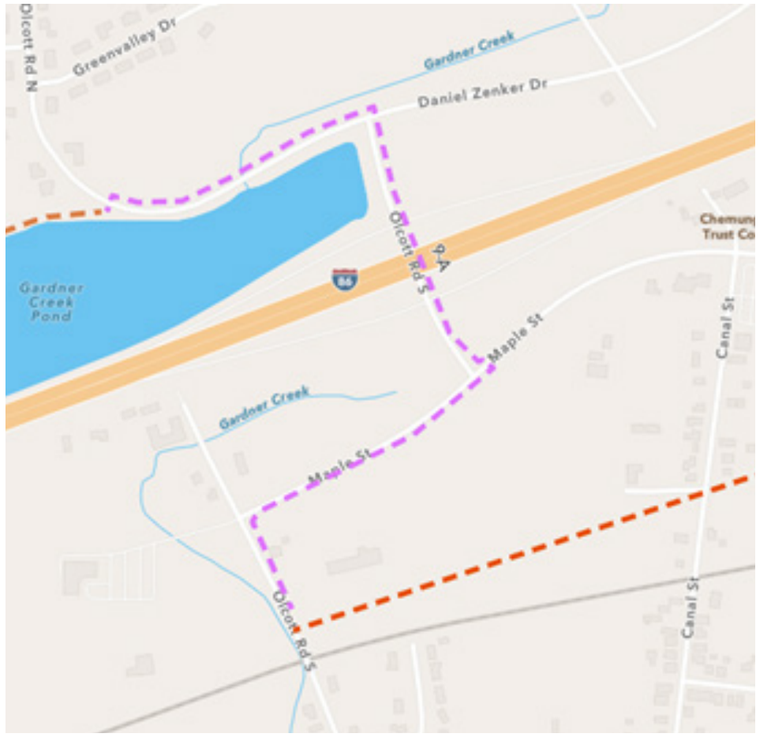
Big Flats Linear Trail, Town Haven Apartments, American Legion and ball field, Higher Hope Church, Beverly's Pond

Opportunities

Connect residents and trail users south of Interstate 86 to the north of the interstate with access to the Big Flats Linear Trail and the scenic Beverly's Pond. The pond is frequently used for fishing and kayaks, bald eagle viewings occur at this location.

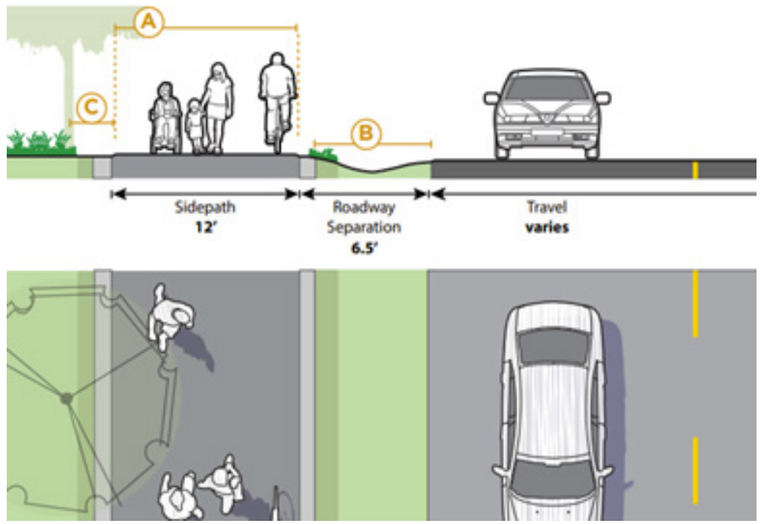
Challenges

Olcott Road South is a two lane roadway with double solid center line without sidewalks. Partnership with private and non-profit owners is required for development of a dedicated shared use path adjacent to the roadway. Maple Street has a steep grade leading to the highway crossing and the route here is not anticipated to meet the minimal grade requirements for ADA accessibility. The AADT for this segment of Maple Street is not documented on NYSDOT Traffic Data Viewer, an off-road shared trail is recommended on Maple Street due to the grade and proximity to highway.



Consideration of Olcott Road South, shared roadway.

Trail Segment Information for Route 9-A Olcott Road South to Beverly's Pond	
Trail Segment ID	9-A
Length (Miles)	0.8
Length On-Road (Miles)	0.5
Length Off-Road (Miles)	0.3
Segment Access / Trailhead	Olcott Road South, Olcott Road North
Trail Users	Pedestrians, Cyclists
Type	Shared Use Path Shared Roadway Marked Roadway
Road Crossings	4
Bridges Needed	1 - Existing
Parcel Count	3
Owner Count	3
Construction Cost Estimate	$1,242,277
Land Acquisition / Easements	$30,100
Soft Cost Subtotal	$462,270
Total Cost Estimate	**$1,734,646**



Recommended shared path with separation distance to Maple Street.

Description

From Olcott Road at the end of Big Flats Linear Trail, turn north on Olcott Road South for 600 feet, turn east on Maple Street (CR17) for 0.25 miles, head north on Bridge Street utilizing the eastern side pedestrian walkway, turn west on Daniel Zenker Road to Beverly's Pond. Begin at the termination of the Big Flats Linear Trail at Olcott Road at the proposed new trailhead parking area. Development of a dedicated shared use path is recommended from the new Olcott Road trailhead to the pedestrian crosswalk at the intersection of Maple and Bridge. Based on coordination with landowners, the proposed route could alternatively include a shared roadway on Olcott Road South with sidewalk and a Dedicated Shared Use Path next to Maple Street traveling east-west. As an alternate to a shared roadway on Olcott Road, the path could consider routing through the Town Haven Apartments parcel, thereby avoiding Olcott Road South. The path is recommended to cross Maple Street at the existing Bridge Street pedestrian crosswalk, the eastern ROW of Bridge Street includes an existing pedestrian walkway, crosswalks at highway ramps, and safety rail at the overpass. The intersection of Bridge Street and Daniel Zenker includes crosswalk to the west of Bridge Street and to the north of Daniel Zenker. Shared roadway markings and/or signage are recommended on Daniel Zenker Drive. A new pedestrian crosswalk at the entrance to the Beverly's Pond NYSDEC parking area is recommended.

Property Owner Information

- Town of Big Flats
- Town Haven LP
- Private Landowner
- Higher Hope Church
- Roadway ROW
- Shared Roadway

SEGMENT 9-A: OLCOTT ROAD SOUTH TO BEVERLY'S POND

Built Environment

This trail segment allows for shared roadways and dedicated multi-use trail. The different trail design opportunities are listed below:

- Dedicated Shared Use Path
- Shared Roadway
- Signed Shared Roadway
- Pedestrian Crosswalk on Daniel Zenker to Beverly's Pond

Environmental Considerations

- Endangered and threatened plants and animals
- Flood Zone X/AE

Permitting Considerations

- Big Flats Zoned Town Center, Business Neighborhood, Residential 1
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- County Highway Permit
- NYSDEC Beverly's Pond
- NYSDEC Construction Permit

Maple Street, traveling east from Olcott Road South to Bridge Street.

Beverly's Pond, Fishing Access Site - NYSDEC in cooperation with NYSDOT, Chemung County and Town of Big Flats.

SEGMENT 11-A: BEVERLY'S POND TO GUTHRIE CORNING HOSPITAL

Trailheads

Beverly's Pond
Near 3 Olcott Road North
-76.946625, 42.141722
Town of Big Flats

Guthrie Corning Hospital
1 Guthrie Drive
-76.975507, 42.131606
Town of Corning

Points of Interest

Beverly's Pond, 70-acre USDA agricultural lands, Guthrie Corning Hospital

Opportunities

Connect Town of Big Flats to the Guthrie Corning Hospital with a multi-use trail, scenic Beverly's Pond, agricultural vista, proximity to residential neighborhoods. USDA Big Flats performs limited agricultural practices north of I-86 and have expressed opportunity for partnership including potential to advance the trail north towards Davenport Road for easier residential access.

Challenges

Beverly's Pond embankment from the former Chemung Feeder Canal ends at Winfield Creek and will require a bridge with tall enough clearance to support the ongoing USDA agricultural practices. Landowner easements will be required. Route alignment adjacent to Interstate 86 requires adequate separation distance and preference for greatest separation distance with natural shielding is preferred while complying with landowner needs. The project area does not include state wetlands but are anticipated to include federal wetland jurisdictions.

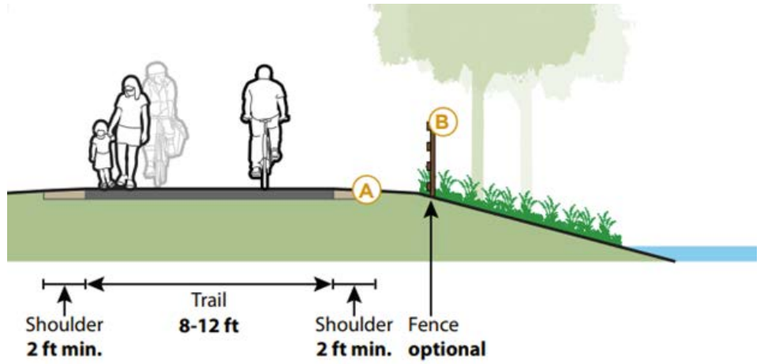
Trail Segment Information for Route 11-A Beverly's Pond to Guthrie Corning Hospital	
Trail Segment ID	11-A
Length (Miles)	1.69
Length On-Road (Miles)	0.47
Length Off-Road (Miles)	1.22
Segment Access / Trailhead	Beverly Pond, Guthrie Corning Hospital
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Pedestrian Bridge Potential Boardwalk Buffered Shared Use Path
Road Crossings	1
Bridges Needed	1
Parcel Count	8
Owner Count	5
Construction Cost Estimate	$3,705,606
Land Acquisition / Easements	$8,000
Soft Cost Subtotal	$958,401
Total Cost Estimate	**$4,672,007**

Description

Begin at the Beverly's Pond parking area travel west 0.46 miles along the berm around Beverly's Pond, follow the berm west crossing the USDA Big Flats agricultural lands. Cross Winfield Creek on a new pedestrian bridge and travel west 1.2 miles to Guthrie Hospital. Coordination with landowners including DEC, USDA, Guthrie Hospital, and private landowners may impact proposed route. USDA has provided information that limited agricultural practices take place on these fields and opportunity for trail development aligns with local utilization; however, will require federal coordination. The proposed trailhead at Guthrie Hospital recommends a new parking area north of Guthrie Drive near the pond, the design team will need to coordinate with Guthrie Hospital to identify if this is the desired trailhead, or if an existing parking lot area can be dedicated to public trail access.

Property Owner Information

- Town of Big Flats
- Town Haven LP
- Private Landowner
- Higher Hope Church
- Roadway ROW
- Shared Roadway



Shared Use Path along pond/canal.

SEGMENT 11-A: BEVERLY'S POND TO GUTHRIE CORNING HOSPITAL

Built Environment

This trail segment allows for dedicated multi-use trail. The different trail design opportunities are listed below:

- Dedicated Shared Use Path
- Pedestrian Bridge over Winfield Creek
- Potential Boardwalk dependent on field testing
- Buffered Shared Use Path

Environmental Considerations

- Endangered and threatened plants and animals
- Wetlands, federal
- Flood Zone X / AE / AH

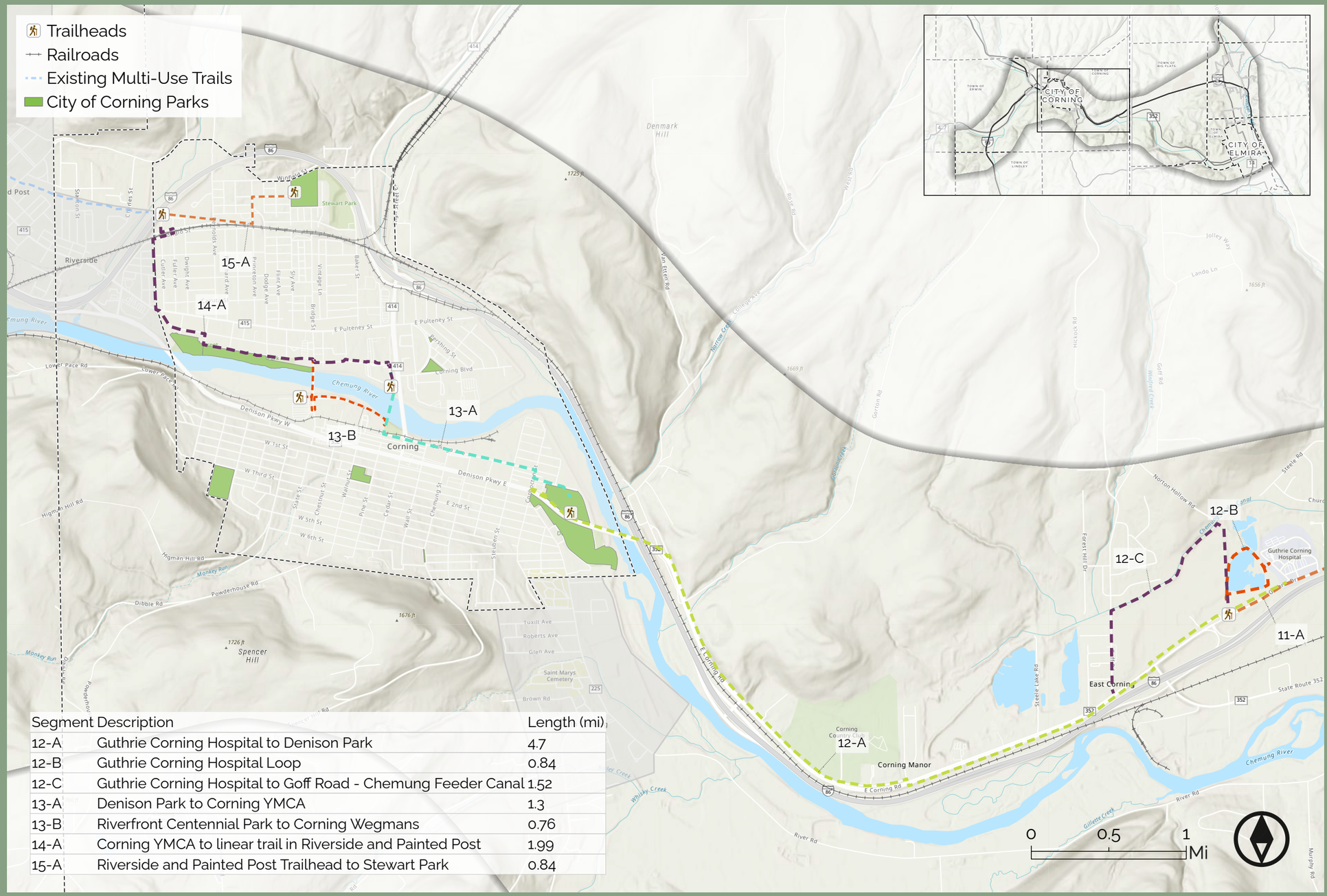
Permitting Considerations

- Town of Big Flats Zoned Residential 1, Rural
- Town of Corning Zoned Planned Residential Development
- Municipality Approval: local site plan approval, land easements, work within ROW
- NYSDEC Easement Approval
- USDA Easement Approval
- Private Easements
- NYSDEC Construction Permit
- NYSDEC Freshwater Wetlands Permit
- Federal Wetlands
- Joint Permit Application

USDA lands looking west towards Guthrie Corning Hospital adjacent to I-86.

Guthrie Drive, propose buffered multi use trail alongside roadway.

CORNING AREA TRAIL SEGMENTS



Segment	Description	Length (mi)
12-A	Guthrie Corning Hospital to Denison Park	4.7
12-B	Guthrie Corning Hospital Loop	0.84
12-C	Guthrie Corning Hospital to Goff Road - Chemung Feeder Canal	1.52
13-A	Denison Park to Corning YMCA	1.3
13-B	Riverfront Centennial Park to Corning Wegmans	0.76
14-A	Corning YMCA to linear trail in Riverside and Painted Post	1.99
15-A	Riverside and Painted Post Trailhead to Stewart Park	0.84

SEGMENT 12-A: GUTHRIE CORNING HOSPITAL TO DENISON PARK

Trailheads

Guthrie Corning Hospital
1 Guthrie Drive
-76.975507, 42.131606
Town of Corning

Denison Park
Vanhall Blvd
-77.037103, 42.139814
City of Corning

Points of Interest

Guthrie Corning Hospital, Crystal Lanes, Corning Country Club, small businesses, Denison Park

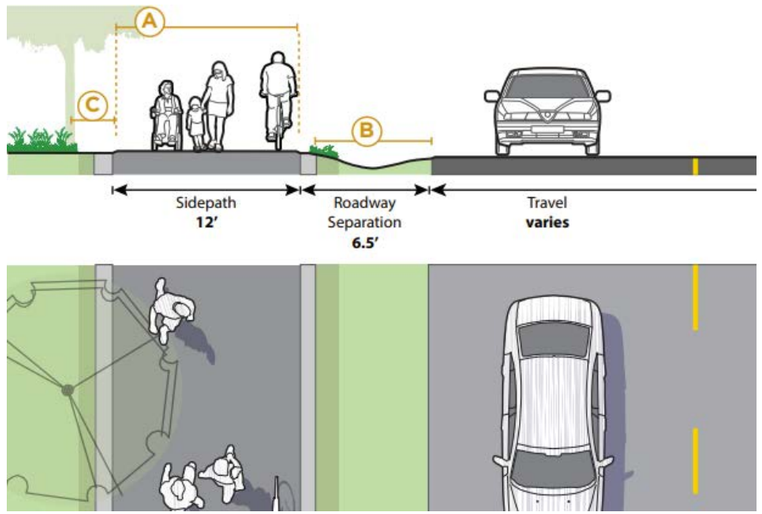
Opportunities

Develop approximately 5.0 miles of the Chemung River Greenway network that crosses parcels owned by the City of Corning and private owners to connect Guthrie Corning Hospital to the City of Corning. Route 352 offers wide roadways, experiences greater than 6,600 average annual daily traffic estimates, has narrow shoulders. Pedestrians frequently walk from the Denison Parkway bridge along the narrow shoulder with steep slopes to the north, providing opportunity to improve safety.

Challenges

The route mainly utilizes East Corning Road (NYS Route 352) ROW, Old Street ROW, and Denison Parkway. Coordination with NYSDOT is paramount in determining the best route through this corridor. Based on the high traffic volume and posted speed limit, a buffered, separated trail or side path is recommended. If the route elects to utilize Old Street a shared use can be considered. A dedicated separated trail is recommended to be considered in the vicinity of the Corning Country Club.

Trail Segment Information for Route 12-A Guthrie Corning Hospital to Denison Park	
Trail Segment ID	12-A
Length (Miles)	4.7
Length On-Road (Miles)	1.06
Length Off-Road (Miles)	3.64
Segment Access / Trailhead	Guthrie Corning Hospital, Denison Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path Buffered Bike Lane Separated Side Path
Road Crossings	5
Bridges Needed	1 - Existing
Parcel Count	12
Owner Count	11
Construction Cost Estimate	$7,210,135
Land Acquisition / Easements	$8,500
Soft Cost Subtotal	$2,599,899
Total Cost Estimate	**$9,818,534**



Separated Side Path.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail begins at Guthrie Corning Hospital then travels 0.80 miles west through private parcels for an off-road section along NYS Route 352. The trail then crosses NYS Route 352 to travel 1.31 miles west along NYS Route 352 on a dedicated buffered trail before once again crossing NYS Route 352 heading north onto Fairway Drive, then turning west onto LPGA Drive for 0.32 miles before continuing back onto a buffered trail alongside NYS Route 352. After traveling 2.0 miles and crossing the Chemung River on the existing Denison Parkway bridge with an existing sidewalk and shared bike roadway. The route extends north and back east at Denison Park along the existing trail where opportunities for public parking, restrooms, a pool, a playground, picnic areas, and soccer fields are available to trail users.

Property Owner Information

- Roadway Rights of Way
- City of Corning
- Guthrie Corning Hospital
- Corning Incorporated
- Private landowner

SEGMENT 12-A: GUTHRIE CORNING HOSPITAL TO DENISON PARK

Built Environment

This trail segment allows for different opportunities of trail designs due to having off-road and on-road sections. The different trail design opportunities are listed below:

- Shared Use Path
- Buffered Bike Lane
- Demonstration Project Opportunity along NYS Route 352 with the temporary construction of Buffered Bike Lane utilizing Jersey barriers

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Wetlands
- Flood Zone X/A

Permitting Considerations

- Town of Erwin Zoned Rural District, Business 1 – Community Services, and Residential – 7,200 sq ft
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

Old Street (LPGA Drive), parallel to NYS Route 352.

Denison Park.

SEGMENT 12-B: GUTHRIE CORNING HOSPITAL LOOP

Trailheads

Guthrie Corning Hospital
1 Guthrie Drive
-76.975449, 42.131657
Town of Corning

Points of Interest

Guthrie Corning Hospital and a pond.

Opportunities

Develop approximately 0.84 miles of the Chemung River Greenway network to provide an outdoor walking path with calming naturistic scenery for hospital employees, and visitors. The area provides opportunity for additional amenities to support health and wellness such as exercise stations, or picnic tables and pavilions to support gatherings.

Challenges

The pond is constructed for stormwater management and additional firefighting capacity, maintaining the intended use of the facilities must be balanced with the development of recreational assets.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer off-road sections only. The trail segment makes a complete 0.84 loop around a private pond. The segment has two different entrances/exits located either east of the private pond halfway up Guthrie Drive or located south of the private pond just off East Corning Road. The idea behind this segment is to provide both patients and employees of the hospital a peaceful place to help relieve stress, promote wellness, and encourage physical activity.

Trail Segment Information for Route 12-B Guthrie Corning Hospital Loop	
Trail Segment ID	12-B
Length (Miles)	0.84
Length On-Road (Miles)	0
Length Off-Road (Miles)	0.84
Segment Access / Trailhead	Guthrie Corning Hospital
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Path
Road Crossings	0
Bridges Needed	0
Parcel Count	2
Owner Count	2
Construction Cost Estimate	$1,650,853
Land Acquisition / Easements	$42,000
Soft Cost Subtotal	$615,307
Total Cost Estimate	**$2,308,161**

Property Owner Information

- Guthrie Corning Hospital
- Corning Incorporated

Built Environment

This trail segment allows for a new shared use path since the trail is completely off-road and there is enough room to develop this trail design.

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zone X/A

Permitting Considerations

- Town of Corning Zoned Planned Residential Development and Planned District
- NYSDEC Construction Permit

Private pond trail loops around.

Private pond trail loops around.

SEGMENT 12-C: GUTHRIE CORNING HOSPITAL TO GOFF ROAD – CHEMUNG FEEDER CANAL

Trailheads

Guthrie Corning Hospital
1 Guthrie Drive
Town of Corning

Intersection of Goff Road & NYS Route 352
Goff Road
Town of Corning

Points of Interest

Guthrie Hospital, a private pond, and historic Chemung Feeder Canal.

Opportunities

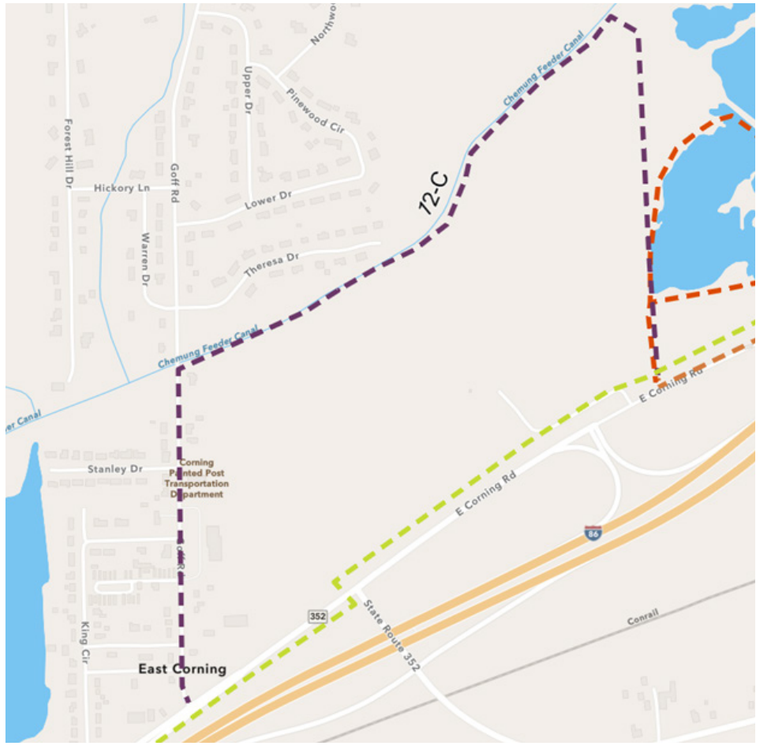
Develop approximately 1.50 miles of the Chemung River Greenway network that crosses parcels owned by private owners to connect Goff Road housing to Guthrie Corning Hospital through a safe walking trail.

Challenges

Landowner permission/easements, a review of easements is required to identify if the county maintains any ownership of the feeder canal area. It is anticipated that this segment will rely heavily on developing relationships and securing easements with private owners. Maintenance along the feeder canal will need to be secured, as the presence of heavy vegetative growth will need to be controlled.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail starts South of the private pond just off NYS Route 352 and travels North to the existing Feeder Canal. The Feeder Canal was established in 1833 and is a 13-mile horse drawn barrage canal between Gibson and Horseheads. The trail then travels 0.70 miles West along the Feeder Canal before meeting Goff Road where is travels approximately 0.50 miles South to the intersection of NYS Route 352 and Goff Road. At the intersection of NYS Route 352 and Goff Road, the trail segment meets Trial Segment 12-A where the trail users can take it all the way to Denison Park in the City of Corning or use it to go back to Guthrie Hospital.



Trail Segment Information for Route 12-C Guthrie Corning Hospital to Goff Road – Chemung Feeder Canal	
Trail Segment ID	12-C
Length (Miles)	1.52
Length On-Road (Miles)	0.42
Length Off-Road (Miles)	1.10
Segment Access / Trailhead	Guthrie Corning Hospital, Intersection of Goff Road and NYS Route 352
Trail Users	Pedestrians, Cyclists
Type	Shared Use Path Shared Roadway
Road Crossings	5
Bridges Needed	0
Parcel Count	8
Owner Count	4
Construction Cost Estimate	$2,011,352
Land Acquisition / Easements	$42,000
Soft Cost Subtotal	$745,087
Total Cost Estimate	**$2,798,439**

Property Owner Information

- Roadway Rights of Way
- Town of Corning
- Private Owners

Built Environment

This trail segment allows for different opportunities of trail designs due to having on-road and off-road segments. The different trail design opportunities are listed below:

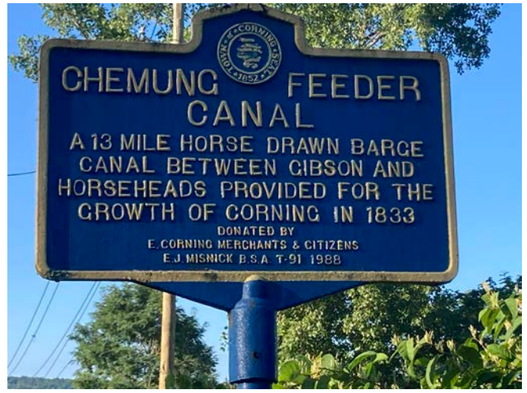
- Shared Use Path
- Shared Roadway

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Historic Areas
- Flood Zone X/A

Permitting Considerations

- Town of Corning Zoned Planned District and Planned Residential Development
- Local Roadway Permit



Chemung Feeder Canal signage.

The Feeder Canal at Goff Road.

Goff Road looking south from Feeder Canal.

SEGMENT 13-A: DENISON PARK TO CORNING YMCA

Trailheads

Denison Park
Vanhall Blvd
City of Corning

Corning YMCA
127 Center Way
City of Corning

Points of Interest

Denison Park, the Chemung River at Conhocton Street, Fallbrook Park, Riverfront Centennial Park, Corning's Gaffer District, Centerway Square, Corning Incorporated Headquarters, Centerway Pedestrian Bridge, and Corning YMCA, Corning Museum of Glass, Corning Painted Post High School.

Opportunities

Develop approximately 1.0 mile of the Chemung River Greenway network that provides dedicated multiuse trail from the pedestrian bridge to Denison Park on the south shore of the Chemung River. East Tioga Avenue has an annual average daily traffic of less than 6,000 (2019). The roadway is best suited for a buffered multiuse trail, an opportunity to experiment with a demonstration project by temporarily installing Jersey barriers in the area is recommended to better understand the potential benefits and challenges.

Challenges

Maintaining the safety of trail users when crossing the many roads throughout Corning, although the street speed limits are low, there is still high volume of cars traveling throughout this area.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer on and off-road segments. The trail begins at Denison Park and travels west on East Market Street Extension before traveling 2 blocks north on Conhocton Street. Continuing north on Conhocton Street will bring the user to the Chemung River and a boat launch with no ameninties. From Conhocton Street and heading east on East Tioga Ave, the trail then travels west for 0.75 miles, with excursions to Fallbrook Park and Riverfront Centennial Park, to Market Street and the Corning Incorporated headquarters before heading north across the Centerway Bridge, a pedestrian bridge. Once over the Centerway Bridge, the trail segment ends at the Corning YMCA.

Property Owner Information

- Roadway Rights of Way
- City of Corning

Trail Segment Information for Route 13-A Denison Park to Corning YMCA	
Trail Segment ID	13-A
Length (Miles)	1.3
Length On-Road (Miles)	0.98
Length Off-Road (Miles)	0.32
Segment Access / Trailhead	Denison Park, Corning YMCA
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Marked Shared Roadway Sidewalks Buffered Shared Use Path
Road Crossings	10
Bridges Needed	1 - Existing
Parcel Count	3
Owner Count	3
Construction Cost Estimate	$1,664,607
Land Acquisition / Easements	$34,500
Soft Cost Subtotal	$616,509
Total Cost Estimate	**$2,315,616**

Built Environment

This trail segment allows for different opportunities of trail designs through a quiet residential environment in the area of Denison Park, and on a buffered trail along East Tioga Ave. The different trail design opportunities are listed below:

- Shared Roadway
- Sidewalks
- Marked Shared Roadway
- Signed Shared Roadway
- Buffered Shared Use Path

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Proximity to Environmental Remediation Sites
- Flood Zone X/AE

Permitting Considerations

- City of Corning Zoned Public Conservation, Commercial, Industrial, and Business Development
- Municipality Approval: local site plan approval, roadside signs, work within ROW
- Local Roadway Permit

Corning's Gaffer District and Centerway Pedestrian Bridge.

Fallbrook Park along Chemung River.

SEGMENT 13-B: RIVERFRONT CENTENNIAL PARK WEST TO CORNING WEGMANS

Trailheads

Riverfront Centennial Park
E Tioga Ave
-77.0540, 42.14459
City of Corning

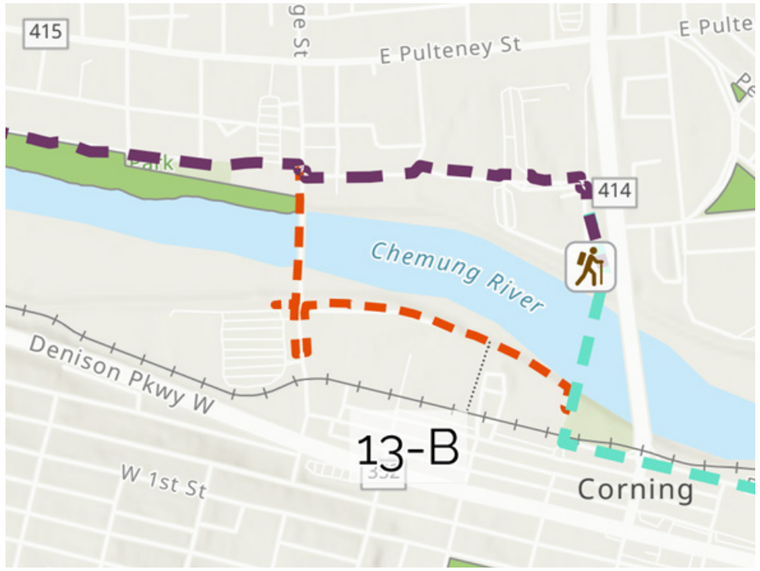
Corning Wegmans
24 S Bridge Street
-77.0612, 42.1465
City of Corning

Points of Interest

Riverfront Centennial Park, Corning Incorporated World Headquarters, Little Joe Tower, Chemung River, Market Street, Corning Gaffer District, The Rockwell Museum, Corning Wegmans.

Opportunities

The urban proposed route is nestled along the Chemung River and proposes utilization of existing shared use brick lined route from Centennial Park between the Chemung River and the Corning Incorporated Headquarters.
The route extends beyond the headquarters to the west along a proposed new multi-use trail to Bridge Street and to Corning Wegmans. Develop approximately 0.75 miles of the Chemung River Greenway network that connects cultural and recreational resources near the Chemung River with access to parks, Corning Incorporated, small businesses, and Corning Wegmans.



Challenges

The proposed route begins at Centennial Park and progresses west along the existing brick lined pedestrian trail (signage allows bicycles at reduced speeds) between the Chemung River flood wall and the Corning Incorporated Headquarters. At the completion of the existing pedestrian trail, the Chemung River Greenway recommends construction of a new multi-use trail south of the floodwall and levee to Bridge Street. The Bridge A potential challenge to this route is the road crossing of Bridge Street, the existing crosswalk is approximately 325 feet south of the proposed multi-use trail, requiring a route that would travel south, cross Bridge Street at the existing crosswalk and return north to the Wegmans trailhead. The route along Bridge Street could consider a combination of existing sidewalks and on-road trail, or new development of a dedicated multi-use trail.

Trail Segment Information for Route 13-B Riverfront Centennial Park to Corning Wegmans	
Trail Segment ID	13-B
Length (Miles)	0.75
Length On-Road (Miles)	0.29
Length Off-Road (Miles)	0.46
Segment Access / Trailhead	Denison Park, Corning YMCA
Trail Users	Pedestrians, Cyclists
Type	Marked Bike Lane Sidewalks Shared Use Path
Road Crossings	2
Bridges Needed	1 - Existing
Parcel Count	3
Owner Count	3
Construction Cost Estimate	$776,364
Land Acquisition / Easements	$45,750
Soft Cost Subtotal	$302,366
Total Cost Estimate	**$1,124,480**

Sidewalk between Bridge Street and Wegmans, Bridge Street bridge looking north.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail begins at the Corning Family YMCA and Corning Museum of Glass. The pedestrian route travels west on existing sidewalks and marked pedestrian crosswalks on Museum Way before turning onto Riverside Drive to continue traveling west. The cycling route recommends shared marked or signed roadway. The trail crosses Bridge Street to continue west on Park Lane to the City of Corning Community Center. A new multi-use trail from the Corning Community Center to continue west on the trail through Hillvue Park for about 0.5 miles. Then the trail travels north on Dunbar Street for a block before taking a quick left to travel west on West William Street and crossing West Pulteney Street (NYS Route 415) onto Townsend Avenue. The trail continues north on Townsend Avenue for 0.4 miles with a recommended treatment of a Bike Boulevard/Shared Lane then travels east on Buffalo Street to use the tunnel under the existing railroad tracks to access Stimson Street where the trail continues west. The trail then turns north on Cutler Avenue Extension before ending at the existing Riverside and Painted Post linear trail highway underpass. This area is recommended for a new trailhead with amenities including parking, pavilion, landscaping, and lighting.

Property Owner Information

- Corning Incorporated
- Steuben County IDA
- Wegmans Food Markets Inc
- Roadway ROW

SEGMENT 13-B:
RIVERFRONT CENTENNIAL PARK WEST TO CORNING WEGMANS

Built Environment

The trail consists of off-road and on-road segments, the following trail design opportunities can be considered:

- Shared Use Trail
- Sidewalk
- Marked Bike Lane

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zone X

Permitting Considerations

- City of Corning Zoned Business Development
- Municipality Approval: local site plan approval, land easements, roadside signs, work within right of way
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

Proposed Trailhead area at Wegmans parking lot near Bridge Street bridge.

Wegmans parking lot.

SEGMENT 14-A: CORNING FAMILY YMCA TO LINEAR TRAIL IN RIVERSIDE AND PAINTED POST

Trailheads

Corning Family YMCA
127 Center Way
-77.075112, 42.159059
City of Corning

Riverside and Painted Post Linear Trail
Intersection of Cutler Ave. Extension & Western Lane
-77.053670, 42.148767
City of Corning

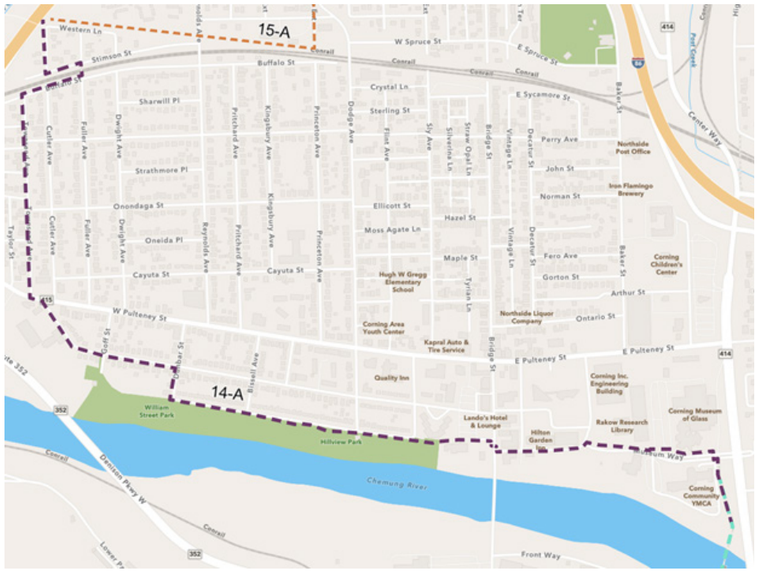
Points of Interest

Corning Family YMCA, Corning Museum of Glass, Corning Community Center, Hillvue Park, William Street Park, and Riverside/ Painted Post Trail

Opportunities

The urban proposed route proposes utilization of existing sidewalks, shared roadways, and multi-use trails. Develop approximately 2.0 miles of the Chemung River Greenway network that connects cultural and recreational resources near the Chemung River with parks and to the existing Riverside and Painted Post Trail.

The proposed route includes the intersection of W William Street and W Pulteney Street, an area that the City of Corning has identified for streetscape improvements through previous TAP grant applications. The proposed Greenway would build on the previous TAP grant design and recommend additional pedestrian and bike improvements. W Pulteney



Street (NYS Route 415, AADT 7,347 in 2019) is also designated as NYS Bicycle Route 17, a signed, on-road bicycle route.

Townsend Ave is selected to travel north from Pulteney Street as it has a low average annual daily traffic of only 252 (2019) the majority of houses on Townsend do not have primary driveways on this roadway as many of the parcels are one-lot in depth with primary drives on Cutler Ave and cross streets. The low traffic volume of Townsend makes it attractive for a shared use roadway. An existing rail underpass at the intersection of Fuller Avenue and Buffalo Street will be utilized in this trail design.

Challenges

A potential challenge to this route is the pedestrian and bike improvements at the intersection of West Pulteney Street and W William Street. Townsend Ave has shared ownership between the Village of Riverside and the City of Corning. The rail underpass at Buffalo and Fuller and the highway underpass west of Western Lane provide opportunities for improved lighting, security, and potentially public art. The proposed trailhead at Western Lane and Cutler Avenue Extension is recommended to have lighting, trail width to allow for emergency vehicle access, and landscaping to improve the aesthetics and safety. Greenspace north of the proposed trailhead between the highway and Lamphear Court requires preservation as it is part of the flood control lands of Cutler Creek.

Trail Segment Information for Route 14-A Corning Family YMCA to Linear Trail in Riverside and Painted Post	
Trail Segment ID	14-A
Length (Miles)	1.99
Length On-Road (Miles)	0.90
Length Off-Road (Miles)	1.09
Segment Access / Trailhead	Corning Family YMCA, Riverside and Painted Post Trailheads
Trail Users	Pedestrians, Cyclists
Type	Shared Use Trail Marked Shared Roadway Sidewalk On-Street Bike Lane
Road Crossings	11
Bridges Needed	0
Parcel Count	6
Owner Count	3
Construction Cost Estimate	$2,159,036
Land Acquisition / Easements	$98,000
Soft Cost Subtotal	$826,253
Total Cost Estimate	**$3,083,289**

Hillvue Park, existing walking trail.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail begins at the Corning Family YMCA and Corning Museum of Glass. The pedestrian route travels west on existing sidewalks and marked pedestrian crosswalks on Museum Way before turning onto Riverside Drive to continue traveling west. The cycling route recommends shared marked or signed roadway. The trail crosses Bridge Street to continue west on Park Lane to the City of Corning Community Center. A new multi-use trail from the Corning Community Center to continue west on the trail through Hillvue Park for about 0.5 miles. Then the trail travels north on Dunbar Street for a block before taking a quick left to travel west on West William Street and crossing West Pulteney Street (NYS Route 415) onto Townsend Avenue. The trail continues north on Townsend Avenue for 0.4 miles then travels east on Buffalo Street to use the tunnel under the existing railroad tracks to access Stimson Street where the trail continues west. The trail then turns north on Cutler Avenue Extension before ending at the existing Riverside and Painted Post linear trail highway underpass. This area is recommended for a new trailhead with amenities including parking, pavilion, landscaping, and lighting.

Property Owner Information

- Roadway Rights of Way
- City of Corning
- Village of Riverside
- Corning Incorporated
- Private Owners

SEGMENT 14-A:
CORNING FAMILY YMCA TO LINEAR TRAIL IN RIVERSIDE AND PAINTED POST

Built Environment

The trail consists of off-road and on-road segments through urban and quiet residential areas allowing the following trail design opportunities to be considered:

- Shared Use Trail
- Shared Roadway
- Sidewalk
- Marked Shared Roadway
- Signed Shared Roadway
- On Street Bike Lane
- Rail Underpass Improvements
- Trailhead Improvements at Riverside and Painted Post Trail highway underpass

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zones X/C

Permitting Considerations

- City of Corning Zoned Business Development, Public Conservation, and Residential Low Density
- Municipality Approval: local site plan approval, land easements, roadside signs, work within right of way
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

Corning Incorporated Headquarters from path along Hillvue Avenue and the Chemung River.

Riverside Painted Post Trail Highway Underpass, opportunity for development of trailhead with amenities.

Existing Highway Underpass, opportunity for improved lighting, community art projects.

View of Riverside Linear Trail looking towards Painted Post demonstrating area improvements associated with linear trail including open space, greenway, and lighting.

SEGMENT 15-A: RIVERSIDE AND PAINTED POST TRAILHEAD TO STEWART PARK

Trailheads

Riverside and Painted Post Linear Trail
Intersection of Cutler Ave. Extension & Western Lane
-77.053670, 42.148767
City of Corning

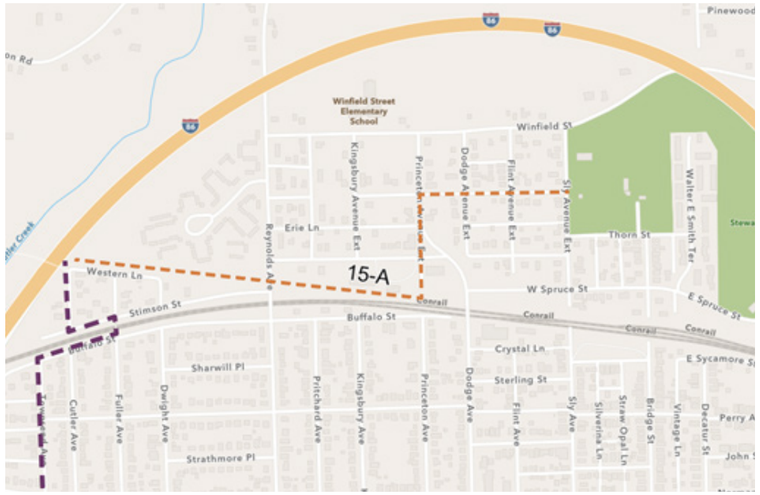
Stewart Park
338 Flint Ave. Ext
-77.063, 42.161
City of Corning

Points of Interest

Existing Riverside Painted Post Trail, Lamphear Court Residential, Winfield Street Elementary School, Family Service Society, Inc., Laura Richardson Houghton Corning Youth Center, Stewart Park Apartments, and Stewart Park.

Opportunities

The Wineglass Marathon Route utilizes the highway underpass and enters the City of Corning at the intersection of Cutler Avenue Extension and Western Lane. Create a gateway to the City of Corning for the Wineglass Marathon, a top 10 Destination Race in the world and Runners World voted Best Marathon in New York State in 2018 and 2023. Develop approximately



0.84 miles of the Chemung River Greenway network that crosses parcels owned by the City of Corning and the Norfolk Southern abandoned line to connect Stewart Park to the existing Riverside and Painted Post Trail. Create a safe and natural park environment in an area that is currently overgrown, has existing primitive trails, and adjoins population centers. The former rail bridge crossing Reynolds Ave offers opportunity to create an urban oasis, such as the Bridge of Flowers in Shelburne, MA or the Old Drake Hill Flower Bridge in Simsbury, CT.

Challenges

Conversion of the abandoned rail line to rail trail, this action was successfully completed in Riverside and Painted Post to create the existing trail. Another challenge is making the trail a safer environment for trail users, safety improvements such as open viewshed, lighting, and emergency vehicle access are needed not only at the Riverside Painted Post Trailhead but also along this section of the proposed Chemung River Greenway.

Current aerial of the trail segment showing heavy plant growth in the location of existing primitive footpaths, recommend develop open space greenway with lighting and landscaping.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer a mainly off-road trail. The trail begins at the existing Riverside and Painted Post Trailhead. The trail heads east along the former railroad bed using a shared use trail design that is aesthetically pleasing and wide enough for emergency vehicles to utilize. Amenities are recommended along the trail including benches, picnic pavilions, lighting, and natural landscaping. At 0.25 miles, the trail crosses Reynolds Avenue on the existing rail bridge, recommendations for improvements to the bridge include new walking tread, and amenities such as flowers and lights. The trail proceeds to the 0.43 mile mark and just past the Family Service Society, Inc. family counseling and structured after-school youth center, the trail turns north on Princeton Avenue Extension, next to the Laura Richardson Houghton Corning Youth Center and the Tree of Dreams program center. Head north on Princeton Ave. Ext. for approximately 600 feet, turn east onto North Franklin Street and travel 1,000 feet east to Stewart Park. Stewart Park offers parking, restrooms, ball fields, a pool, and a playground.

Property Owner Information

- Roadway Rights of Way
- City of Corning
- Norfolk Southern

Trail Segment Information for Route 15-A Riverside and Painted Post Trailhead to Stewart Park	
Trail Segment ID	15-A
Length (Miles)	0.84
Length On-Road (Miles)	0.39
Length Off-Road (Miles)	0.45
Segment Access / Trailhead	Riverside and Painted Post Trailhead, Stewart Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Trail Marked Bike Lane Sidewalk
Road Crossings	8
Bridges Needed	1 (Retrofit Existing)
Parcel Count	3
Owner Count	2
Construction Cost Estimate	$2,177,202
Land Acquisition / Easements	$50,000
Soft Cost Subtotal	$838,793
Total Cost Estimate	**$3,065,995**

Built Environment

This trail segment consists of mainly off-road sections along the former railroads therefore it would be best to use a Shared Use Trail design that fits the needs of this area.

- Trail Amenities Including Lighting
- Shared Use Trail
- Railroad Bridge Improvements
- Signed Shared Roadway
- Marked Shared Roadway
- Wayfinding and Traffic Calming along Princeton Avenue Extension

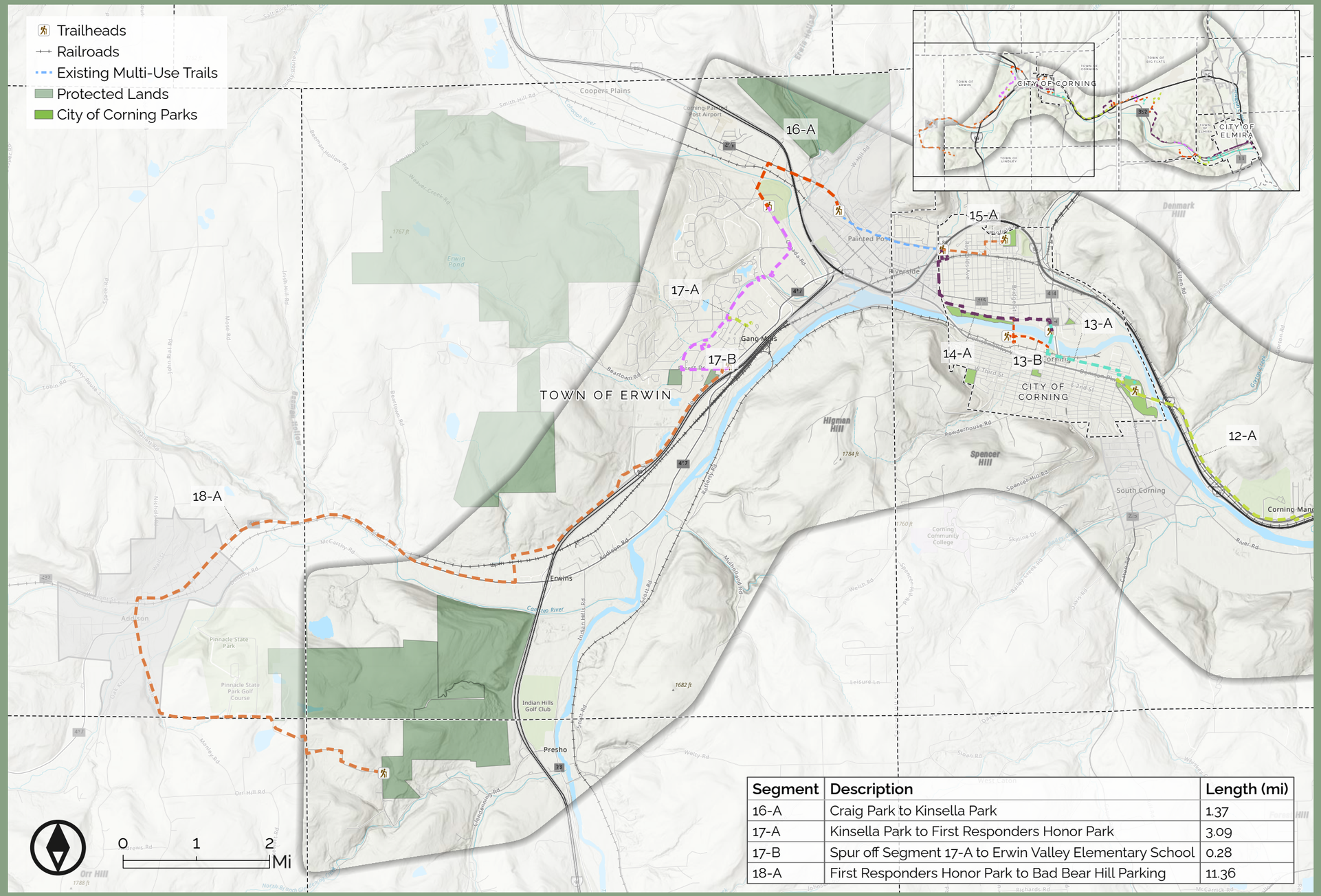
Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zone X

Permitting Considerations

- City of Corning Zoned Residential Low Density, Commercial/ Light Industrial, and Public Conservation
- Municipality Approval: local site plan approval, land easements, road crossings, work within right of way

ERWIN AREA TRAIL SEGMENTS



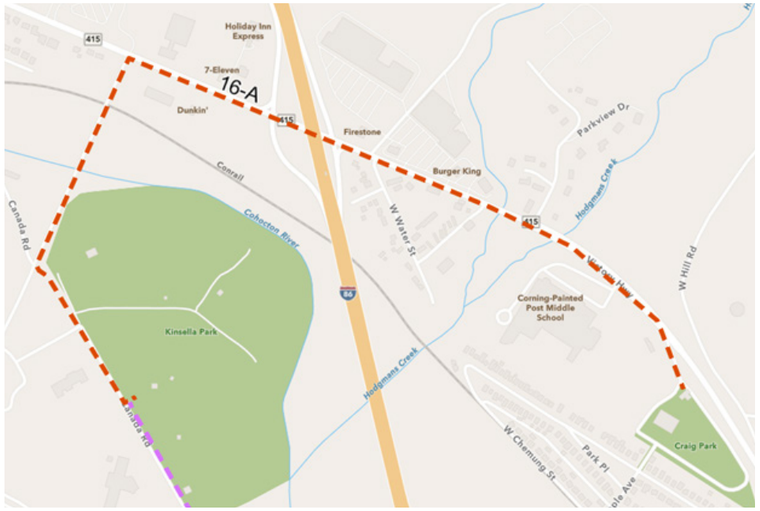
Segment	Description	Length (mi)
16-A	Craig Park to Kinsella Park	1.37
17-A	Kinsella Park to First Responders Honor Park	3.09
17-B	Spur off Segment 17-A to Erwin Valley Elementary School	0.28
18-A	First Responders Honor Park to Bad Bear Hill Parking	11.36

SEGMENT 16-A: CRAIG PARK TO KINSELLA PARK

Trailheads

Craig Park Trailhead
27 Victory Highway
-77.095, 42.165
Village of Painted Post

Kinsella Park Trailhead
106 Canada Road
-77.109, 42.166
Town of Erwin



Points of Interest

Craig Park, Corning Painted Post Middle School, Small Local Businesses, Private Chain Businesses, Conhocton River, Guthrie Healthworks Wellness and Fitness Center, Corning Children's Center West, and Kinsella Park.

Opportunities

Develop approximately 1.37 miles of the Chemung River Greenway network that connects Craig Park in the Village of Painted Post to Kinsella Park in the Town of Erwin to promote recreational activities provided at each park to the surrounding community. Advance the Town of Erwin Green Infrastructure Plan to develop the proposed trail from the Corning Painted Post Middle School along Victory Highway to Robert Dann Drive and Kinsella Park.

Challenges

Maintaining the safety of the trail users in proximity to Victory Highway (NYS Route 415) due to high traffic volume (AADT 5,474 – 2019), recommended buffered trail.

Description

This is one of several trail segments planned for the Chemung River Greenway network and recommends buffered trails and shared roadways. The trail begins at Craig Park where there is parking, pickle ball courts, a dog park, basketball courts, a pavilion, and paved linear jogging and exercise trail connecting to Painted Post and Riverside neighborhoods. The trail travels west along NYS Route 415 for 0.76 miles crossing West Water Street and traveling under highway overpass and highway on/off ramps along the way before turning onto south Robert Dann Drive. After heading about 0.29 miles south on Robert Dann Drive, turn east onto the existing paved trail entering Kinsella Park. Kinsella Park provides parking, baseball/softball fields, football fields, access to boat launch on Chemung River and restrooms to trail users.

Property Owner Information

- Roadway Rights of Way
- Village of Painted Post
- Town of Erwin

Built Environment

This trail segment offers different options for the trail design based on the heavy traffic urban environment it is located in. The following options are listed below:

- Sidewalks
- Marked Shared Roadway
- Buffered Bike Lane

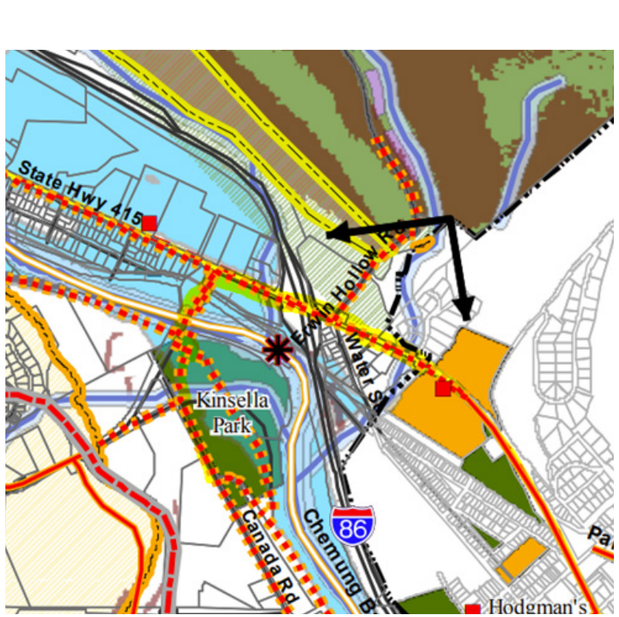
Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zone C/A5

Permitting Considerations

- Village of Painted Post Zoned Low Density Residential
- Town of Erwin Zoned Business 3-Neighborhood Services and Rural District
- Municipality Approval: local site plan approval, roadside signs, work within ROW
- NYSDOT: Road crossing and work within ROW

Trail Segment Information for Route 16-A Craig Park to Kinsella Park	
Trail Segment ID	16-A
Length (Miles)	1.37
Length On-Road (Miles)	1.03
Length Off-Road (Miles)	0.34
Segment Access / Trailhead	Craig Park, Kinsella Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Sidewalk Marked Shared Roadway Buffered Bike Lane
Road Crossings	4
Bridges Needed	1 - Existing
Parcel Count	6
Owner Count	4
Construction Cost Estimate	$2,343,755
Land Acquisition / Easements	$65,600
Soft Cost Subtotal	$876,552
Total Cost Estimate	**$3,285,907**



Town of Erwin Green Infrastructure Plan, Proposed Route along Victory Highway, Robert Dann to Kinsella Park.

Access to Kinsella Park from Robert Dann Drive.

SEGMENT 17-A: KINSELLA PARK TO FIRST RESPONDERS HONOR PARK

Trailheads

Kinsella Park Trailhead
106 Canada Road
-77.109, 42.166
Town of Erwin

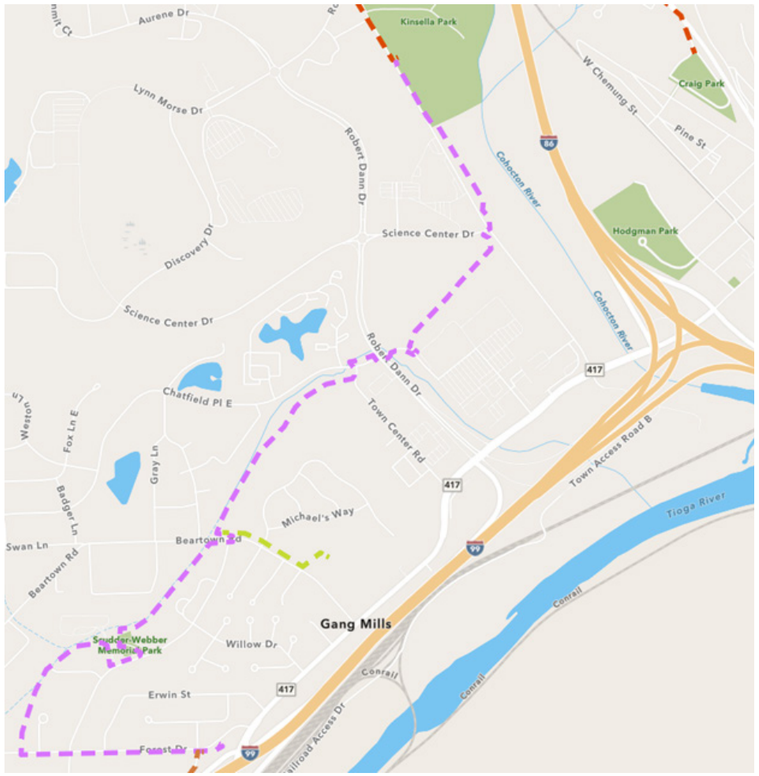
First Responders Honor Park
41 Forest Drive
-77.117, 42.142
Town of Erwin

Points of Interest

Kinsella Park, Private Businesses, Housing Developments, Scudder Webber Memorial Park, Erwin Valley Elementary School, and First Responders Honor Park.

Opportunities

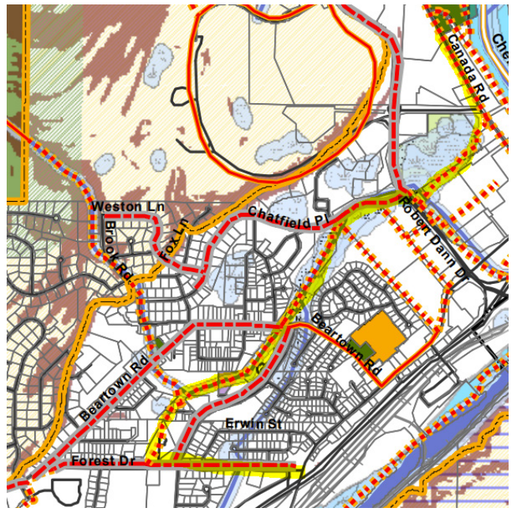
Develop approximately 3.0 miles of the Chemung River Greenway network that crosses parcels owned by the Town of Erwin and private owners to connect Kinsella Park to First Responders Honor Park to promote recreational activities to the surrounding community. The route follows the Flood Control Project Lands as recommended by the Region 8 Flood Control Engineer, providing a scenic route away from roadways through the Town of Erwin. Advances a proposed route in the Town of Erwin Green Infrastructure Plan that recommends a trail route from Kinsella Park, through the flood control lands to Forest Drive and east to the First Responders Honor Park.



Challenges

Landowner permission/easements, there are 13 private parcel owners that this trail segment overlaps with; however, there are existing flood control project land easements held by NYS. Construction of trails that are responsive to the primary purpose fo the flood control project lands and, "Proposed trails on flood control lands (far away from the levee) must not interfere with Department maintenance and operations equipment and withstand Department same crossing or working from the trails. Also, the trails must not interfere with stormwater flow (not cause ponding). It is important that the location of trails do not invite or cause unwanted side trails." As such, careful coordination with Regional Flood Control Engineer is recommended in the design of this area. It is anticipated that design calculations demonstrating that proposed improvements will not interfere with stormwater flow and flood analysis will be required.

Trail Segment Information for Route 17-A Kinsella Park to the First Responders Honor Park	
Trail Segment ID	17-A
Length (Miles)	3.09
Length On-Road (Miles)	0.01
Length Off-Road (Miles)	3.08
Segment Access / Trailhead	Kinsella Park, First Responders Honor Park
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Trail Sidewalk
Road Crossings	8
Bridges Needed	0
Parcel Count	19
Owner Count	14
Construction Cost Estimate	$9,712,706
Land Acquisition / Easements	$132,500
Soft Cost Subtotal	$3,618,824
Total Cost Estimate	**$13,464,031**



Town of Erwin Green Infrastructure Plan, Proposed Route from Kinsella Park to First Responders Honor Park.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail starts at Kinsella Park where parking, baseball/softball fields, football fields, access to boat launch on Chemung River and restrooms is provided to trail users. The trail travels southeast for 0.29 miles off-road along Canada Road before crossing Cananda Road into another off-road section. After heading southwest for 0.38 miles off-road, the trail crosses Robert Dann Drive, then Chatfield Plaza East twice to utilize existing crosswalks and to avoid path construction on a tight shoulder. The trail then continues west through an off-road section for 0.57 miles before crossing Beartown Road using an existing crosswalk, then crossing Creekside Drive to another off-road section. This off-road section travels southwest for 0.50 miles, then crosses a private driveway before continuing an off-road section once again. This off-road section continues for 0.40 miles before crossing Forest View Drive and traveling east along it while crossing Fieldview Drive and Jones Road before ending at First Responders Honor Park.

Property Owner Information

- Roadway Rights of Way
- NYS Flood Control Lands
- Town of Erwin
- Private Owners

SEGMENT 17-A: KINSELLA PARK TO THE FIRST RESPONDERS HONOR PARK

Built Environment

This trail segment offers different opportunities of trail designs due to having both off-road and on-road sections. The on-road segments tend to be in a quiet residential environment that allows different opportunities of trail types to be considered. The following types are listed below:

- Shared Use Trail for off-road sections
- Shared Roadway
- Sidewalks
- Marked Shared Roadway
- Signed Shared Roadway

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Wetlands
- Flood Zone C

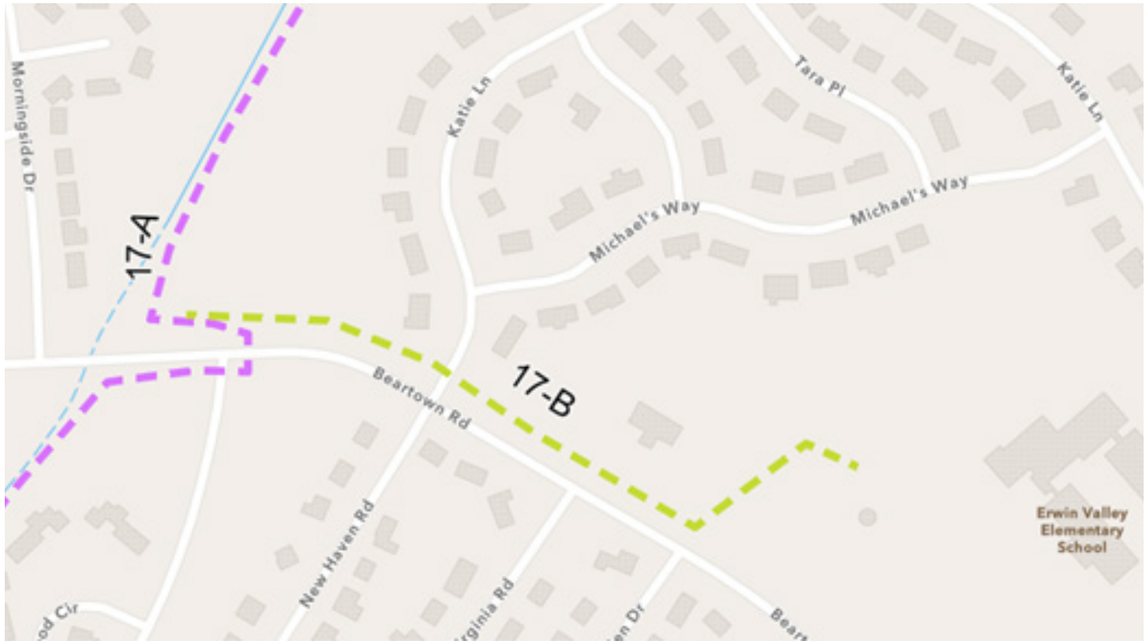
Permitting Considerations

- Town of Erwin Zoned Rural District, Business 1 – Community Services, and Residential – 7,200 sq ft
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Local Roadway Permit
- NYSDOT: Road crossing and work within ROW

Kinsella Park.

First Responders Honor Park.

SEGMENT 17-B: SPUR OFF SEGMENT 17-A TO ERWIN VALLEY ELEMENTARY SCHOOL



Trailheads

Segment 17-A
Beartown Road Intersection
-77.117, 42.149
Town of Erwin

Erwin Valley Elementary School
16 Beartown Road
-77.112, 42.148
Town of Erwin

Points of Interest

Abby-Kuehnle Park, Erwin Valley Elementary School, residential neighborhoods

Opportunities

Develop a spur off of Segment 17-A to the Erwin Valley Elementary School where tennis courts, basketball courts, and a playground are offered. The purpose of the spur would be to direct bicycle traffic on a dedicated path from the primary Chemung River Greenway artery to the school. The adjacent Beartown Road has a sidewalk in this area but lacks adequate shoulder for cycling by young and inexperienced riders that may have an interest in traveling from the Greenway to the school.

Challenges

Landowner permission/easements, although the route begins at the NYSDEC permanent easement for flood protection purposes, the route does cross privately held parcels in addition to Town of Erwin lands and Corning City School District lands. Alignment of the route will require coordination with landowners and development of easements.

Trail Segment Information for Route 17-B Spur Off Segment 17-A to Erwin Valley Elementary School	
Trail Segment ID	17-B
Length (Miles)	0.28
Length On-Road (Miles)	0
Length Off-Road (Miles)	0.28
Segment Access / Trailhead	Segment 17-A, Erwin Valley Elementary School
Trail Users	Pedestrians, Cyclists, ADA Compliant
Type	Shared Use Trail
Road Crossings	1
Bridges Needed	0
Parcel Count	5
Owner Count	4
Construction Cost Estimate	$508,204
Land Acquisition / Easements	$27,100
Soft Cost Subtotal	$171,093
Total Cost Estimate	**$706,397**

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer an off-road multi-use trail only. This trail branches off of Segment 17-A connecting Kinsella Park with the Emergency Responders Honor Park, near Beartown Road. The route travels from the Chemung River Greenway, east across Katie Lane to Erwin Valley Elementary School. Although this trail segment is only 0.28 miles, it is important to connect the community to Erwin Valley Elementary School through a safe path, enabling an off-road bicycle experience for students, staff, and visitors. The construction of new bike racks is recommended at the school.

Property Owner Information

- Town of Erwin
- Corning City School District
- Private Owners

Built Environment

This trail is an off-road trail only despite one road crossing which will utilize an existing crosswalk, the trail design for this section should be Shared Use.

Environmental Considerations

- Endangered and Threatened Plants and Animals
- Flood Zone C

Permitting Considerations

- Town of Erwin Zoned Rural District and Residential
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- Local Roadway Permit

SEGMENT 18-A: FIRST RESPONDERS HONOR PARK TO BAD BEAR HILL PARKING

Trailheads

First Responders Honor Park
41 Forest Drive
-77.117, 42.142
Town of Erwin

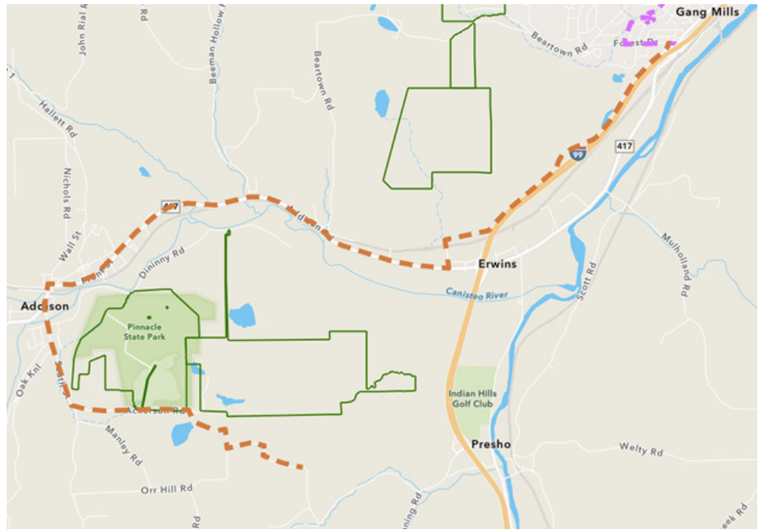
FLLT Bad Bear Hill Parking
Reep Road
-77.186, 42.083
Town of Lindley

Points of Interest

First Responders Honor Park, Corning Incorporated, Village of Addison, local businesses, Addison Middle/High School, and Tuscarora Elementary School, Pinnacle State Park, McCarthy Hill State Forest, Finger Lakes Land Trust Bad Bear Hill Conservation Project.

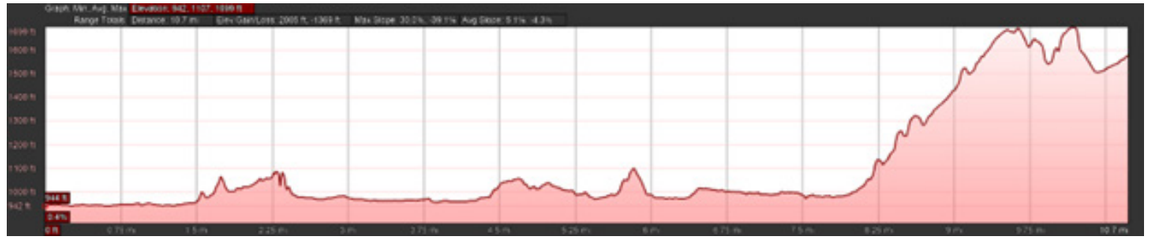
Opportunities

Develop approximately 11.0 miles of the Chemung River Greenway network that crosses parcels owned by the State of New York and private owners to connect to the conservation areas including McCarthy State Forest and Finger Lakes Land Trust Bad Bear Hill Conservation area for recreational and learning purposes.



Challenges

Landowner permission/ easements, although the route utilizes predominatnly roadway ROW, easements will be required. Leaving Jones Road at the Corning Incorporate plant requires an at-grade crossing of Norfolk Southern line. Another challenge that may arise is developing a roadside trail along NYS Route 417 that maximizes the safety of trail users. An alternative to construction of a roadside trail would be to head due south from the Corning Incorporated Diesel Plant, cross NYS Route 417, cross the Canisteo River on a new pedestrian bridge and directly enter the Finger Lakes Land Trust conservation area. It is anticipated that the scale of the pedestrian bridge for the Canisteo River, which is subject to severe flooding, would preclude this option, thus a roadside loop through Addison is recommended. Routing through Addison provides for a relatively level trail until milepoint 8.25 on South Street occurs, at which time the slope is very steep as shown in the elevation profile below.



Trail Segment Information for Route 18-A First Responders Honor Park to Bad Bear Hill Parking	
Trail Segment ID	18-A
Length (Miles)	11.36
Length On-Road (Miles)	9.56
Length Off-Road (Miles)	1.80
Segment Access / Trailhead	First Responders Honor Park, Bad Bear Hill, Finger Lakes Land Trust
Trail Users	Pedestrians, Cyclists
Type	Shared Use Trail Shared Roadway Sidewalks Buffered Bike Lane
Road Crossings	16
Bridges Needed	1 - Existing
Parcel Count	7
Owner Count	7
Construction Cost Estimate	$13,307,370
Land Acquisition / Easements	$21,000
Soft Cost Subtotal	$4,816,153
Total Cost Estimate	**$18,144,523**

Jones Road along Interstate 99.

Description

This is one of several trail segments planned for the Chemung River Greenway network and will offer both on-road and off-road trails. The trail beings at the First Responders Honor Park where there is limited on-street parking available for trail users. The trail continues 1.52 miles southwest down Jones Road before using private parcels for the off-road section of this trail. The off-road section continues for 1.72 miles, passing through 7 private parcels and requires an at-grade railroad crossing. The route heads north from the railroad to NYS Route 417, where it travels west along it for 3.43 miles before entering the Village of Addison. A separated side path or buffered bike lane is recommended in this area. Once the trail enters the Village of Addison, sidewalks are available to pedestrians to get off the busy road, while cyclists would proceed on shared roadway with signage or markings. For another mile, the trail continues through Addison along NYS Route 417 where it then veers off onto South Street. The trail remains on South Street for 1 mile then heads back east on Ackerson Road which changes to Orr Hill Road for 1.75 miles. The trail then continues 0.86 miles on Reep Road where it ends at Bad Bear Hill where there is minimal parking available. The final two miles of this route include steep slopes.

Property Owner Information

- Town of Erwin
- Roadway Rights of Way
- New York State
- Norfolk Southern
- Corning Incorporated
- Private Owners

SEGMENT 18-A: FIRST RESPONDERS HONOR PARK TO BAD BEAR HILL PARKING

Built Environment

This segment contains both on-road and off-road trail segments allowing for different trail designs to be considered. The following designs are listed below:

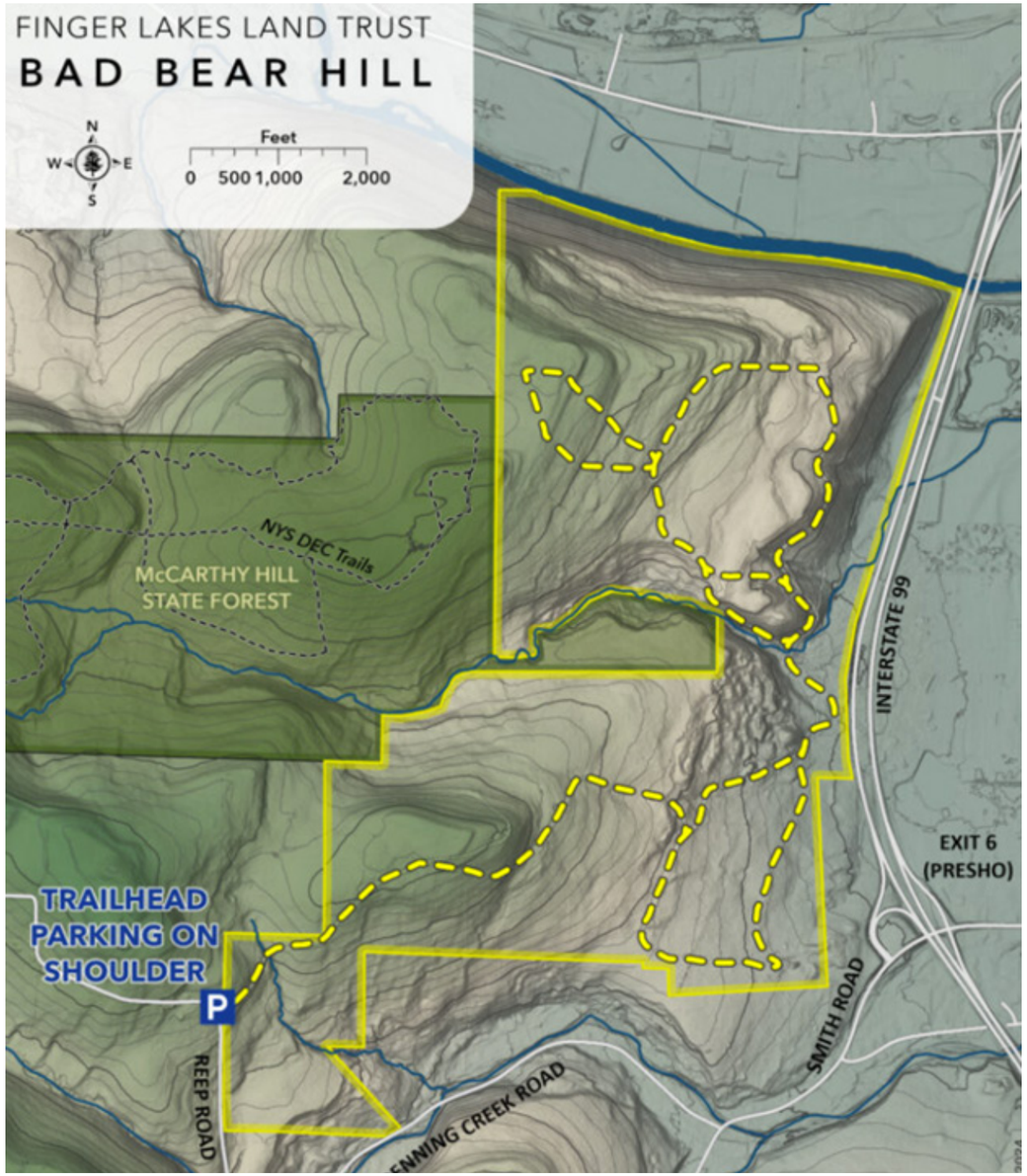
- Shared Use Trail
- Shared Roadway for the section of trail along Jones Road
- Sidewalks should be utilized along NYS Route 417 where provided
- Buffered Bike Lane
- Railroad Pedestrian Crossing

Environmental Considerations

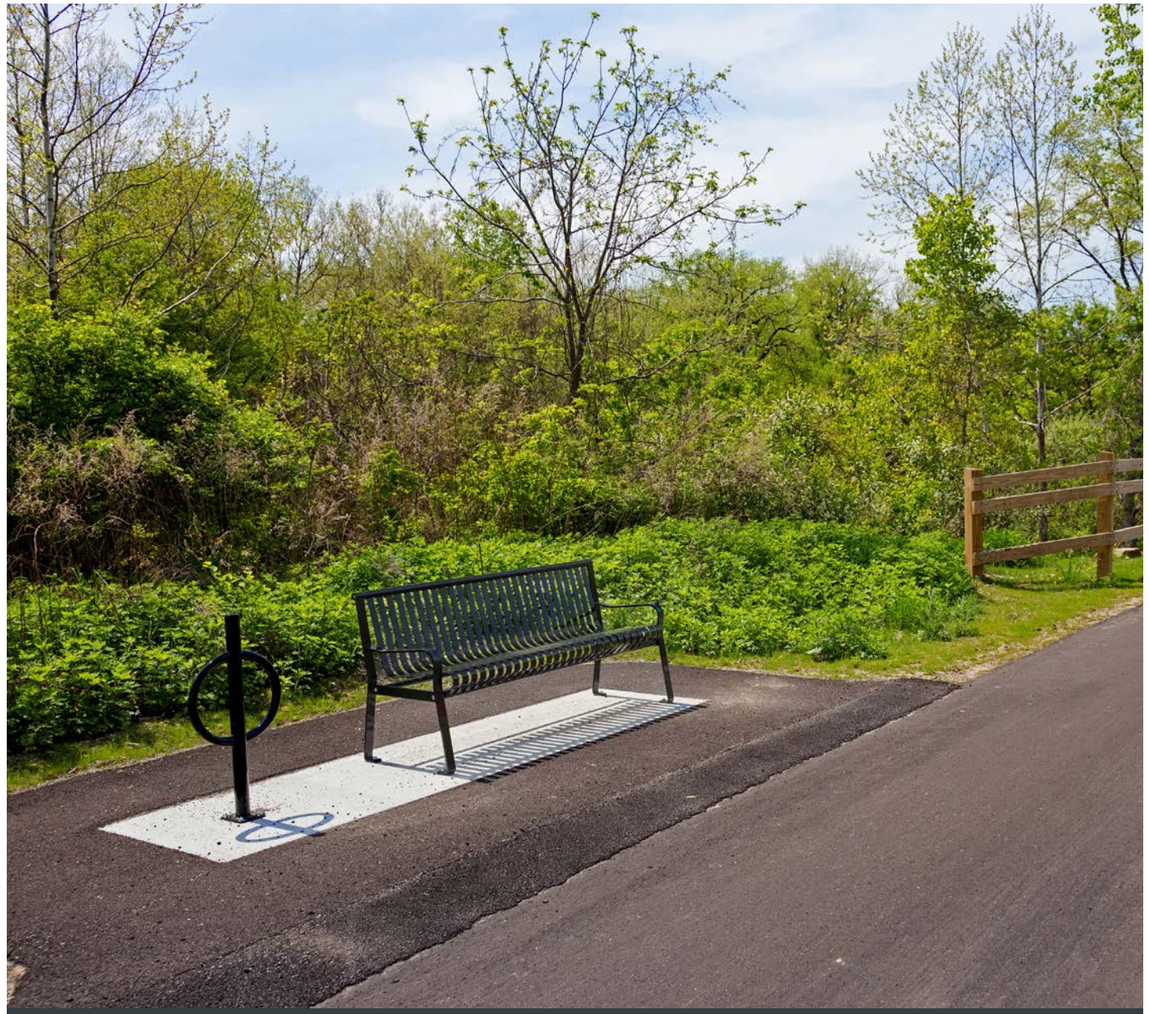
- Endangered and Threatened Plants and Animals
- Wetlands
- Flood Zones C, B, A8, and A9

Permitting Considerations

- Town of Erwin Zoned Residential – 7,200 sq ft, Residential – 10,000 sq ft, I-2: Industrial.
- Tow of Addison Zoned Commercial, Residential – Transit, Residential Moderate, Commercial Center, Public Conservation, Residential Low Density, and Agricultural
- Municipality Approval: local site plan approval, land easements, roadside signs, work within ROW
- NYSDOT: Road crossing and work within ROW
- Local Roadway Permit
- County Road Permit
- NYSDEC Construction Permit
- NYSDEC Wetlands Permit



Finger Lakes Land Trust Bad Bear Hill Map.



TRAILS, TRAILHEADS, AND AMENITIES

DESIGN RECOMMENDATIONS AND AMENITIES

The Chemung River Greenway is fortunate to have a well-developed and thoughtful logo designed by Brave World Media, which can be utilized on wayfinding signs, trail markers, trail blazes, and informational guides throughout the project area. It is recommended that this badge and color scheme be consistently deployed across all greenway materials.

Signs proposed for streets, highways, and bikeways open to the public are regulated by the National Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) and 17 NYCRR Chapter V (New York Supplement) as well as the design standards set forth by the Americans with Disabilities Association (ADA). During design development for each phase of the project, coordination of signage with local municipalities and roadway jurisdictions will need to be coordinated and receive approvals.

Recommended Guidelines

FHWA Bikeway Selection Guide (2019)

AASHTO Guide for the Development of Bicycle Facilities, 4th Edition (2012)

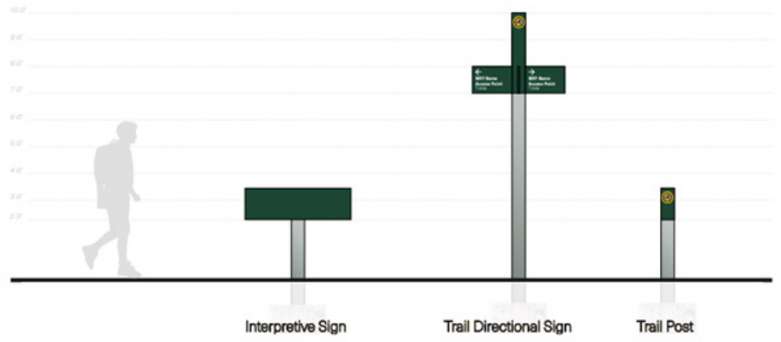
NACTO Urban Bikeway Design Guide (2014)

NACTO Don't Give Up at the Intersection (2019)

Note: Segments under NYSDOT jurisdiction may require utilizing additional NYSDOT guidance.

Community members and stakeholders expressed a desire for trail rules and regulations that would promote safety. Some recommended guidelines may include:

1. Emergencies – Dial 911.
2. Trail users must stop at all road crossings and ensure safe crossings.
3. Greenway use if from dawn until dusk.
4. Greenway use if for pedestrians, bicyclists, users of mobility devices, stroller users, cross-country skiers.
5. Cyclists should always wear a helmet. Bicycle speed should be reduced to avoid collisions with other greenway users, cyclists to yield right of way to pedestrians.
6. Pets must be kept under control and on-leash at all times. Owners must clean up after their pets.
7. Camping and overnight activities are not permitted.
8. Trail Manners – stay on the trail. Respect the privacy of adjacent private property owners. Take trash with you and dispose of in an appropriate manner.



DESIGN RECOMMENDATIONS AND AMENITIES

The Chemung River Greenway trail segment summaries identify existing and proposed trailheads. The route was designed to connect existing assets in the community, as such the routes includes the following existing parks and resources: Lackawanna Trailhead, Pirozzolo Park, Corning Incorporated Big Flats Plant, Sperr Memorial Park, Big Flats Linear Trailhead at Maple Street and Winters Road, Big Flats Community Park, Beverly's Pond, Denison Park, YMCA of Corning, Craig Park, Kinsella Park, First Responders Honor Park, and Bad Bear Hill Parking Area. New proposed trailheads include Trolley Trailhead, Nature Conservancy, Big Flats, Carpenter Road, Olcott Road, Guthrie Hospital, and Riverside and Painted Post Trailhead. The following amenities exist, or as proposed as defined in the table, green indicating an existing amenity, and red indicating a proposed new amenity.

Amenities by Trailhead	IDENTIFICATION						PARKING	SIGNAGE			FURNISHINGS										PLANTINGS	
	Number	Existing or Proposed	Address	Location	Owner	Parcel Number	Number of Spaces	Kiosk Panel	Interpretive Sign	Trail Direction Sign	Pavilion	Restroom	Lighting	Boat Launch	Playground	Fields and Courts	Picnic Talbes	Benches	Bicycle Repair Station	Bicycle Rack	Trees	Plants
Lackawanna Tailhead	0-TH	Existing	900 E Water Street	City of Elmira	City of Elmira	90.17-1-2	>60															
Pirozzolo Park	1-TH	Existing	1225 W Water St	Town of Elmira	Town of Elmira	98.11-4-18	>60															
Trolley Trailhead	2-TH	Proposed	1890 W Water Street	Town of Big Flats	Town of Elmira	88.00-1-32	2															
Nature Conservancy Trailhead	3-TH	Proposed	1165 NYS Route 352	Town of Big Flats	The Nature Conservancy	87.00-1-30	2															
Big Flats Trailhead	4-TH	Proposed	2346 NYS Route 352	Town of Big Flats	Town of Big Flats	87.00-1-19	8															
Carpenter Road Trailhead	5-TH	Proposed	66 Carpenter Road	Town of Big Flats	Town of Big Flats	76.00-2-27	4															
Corning Incorporated Big Flats Plant	6-TH	Existing	673 County Route 64	Town of Big Flats	Management Corporation	66.04-3-20	>60															
Sperr Park Trailhead	7-TH	Existing	Kahler Road South	Town of Big Flats	Airport & Elmira Aeronautical	57.02-2-60	22															
Big Flats Linear Trailhead at Maple Street and Winters Road	8-TH	Existing	Winters Road & Maple Street	Town of Big Flats	Town of Big Flats	66.04-2-3	10															
Olcott Road Trailhead	9-TH	Proposed	Olcott Road South	Town of Big Flats	Town of Big Flats	66.04-2-3	6															
Big Flats Community Park Trailhead	10-TH	Existing	1 Pavilion Drive	Town of Big Flats	Town of Big Flats	66.04-4-21	>60															
Beverly's Pond Trailhead	11-TH	Existing	Beverly's Pond Landing	Town of Big Flats	Environmental Conservation	ROW	5															
Guthrie Hospital Trailhead	12-TH	Proposed	1 Guthrie Drive	Town of Corning	Corning Hospital	319.00-01-020.200	6															
Denison Park Trailhead	13-TH	Existing	Denison Park	City of Corning	City of Corning	318.14-03-074.000	>60															
YMCA Trailhead	14-TH	Existing	127 Centerway	City of Corning	Corning Incorporated	317.08-01-050.100	>60															
Corning Wegmans Trailhead	W-TH	Existing	24 S Bridge Street	City of Corning	Wegmans	317.08-01-066.00	>60															
Riverside and Painted Post Trailhead	15-TH	Proposed	Cutler Avenue Extension	City of Corning	Penssylvania Lines LLC (Norfolk Southern)	299.16-03-001.000	10															
Craig Park Trailhead	16-TH	Existing	27 Victory Highway	Village of Painted Post	Village of Painted Post	229.09-02-015.110	>60															
Kinsella Park Trailhead	17-TH	Existing	106 Canada Road	Town of Erwin	Town of Erwin	298.00-01-003.200	>40															
First Responders Honor Park	18-TH	Existing	South Hamilton St & Forest Dr	Town of Erwin	ROW	ROW	10															
Bad Bear Hill Parking	19-TH	Existing	Reep Road	Town of Lindley	Finger Lakes Land Trust	369.00-02-0004.100	2															

Existing
Proposed

CONSTRUCTION CONSIDERATIONS

The Chemung River Greenway will be a shared use path with travel area separate from motorized traffic when possible. In some cases, the Chemung River Greenway may utilize existing sidewalks and bike routes for connectivity to various areas of interest and other segments of the Chemung River Greenway.

The Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) is published by the Federal Highway Administration (FHWA) and defines national standards for the installation and maintenance of traffic control devices on all streets, highways, pedestrian and bicycle facilities, and site roadways open to public travel. The 11th edition of the MUTCD was published on December 19, 2023 with an effective date of January 18, 2024. In 2009, New York State developed the New York State Supplement to the National Manual on Uniform Traffic Control Devices for Streets and Highways, effective March 16, 2011. The Chemung River Greenway will follow standards defined in most current edition of the MUTCD and the New York State Supplement.

The Public Right-of-Way Accessibility Guidelines (PROWAG) is a set of guidelines developed and published by the U.S. Access Board under the Americans with Disabilities Act and the Architectural Barriers Act. PROWAG was published on August 8, 2023 with the final rule effective on September 7, 2023. These guidelines address access to sidewalks, streets, crosswalk, curb ramps, pedestrian signals, on-street parking, and other components of public right-of-way. PROWAG also includes guidance for shared use paths designed for pedestrians and bicyclists as the primary users. When possible with terrain and other constraints, the Chemung River Greenway will implement trail segments compliant with PROWAG to allow accessibility to users with disabilities.

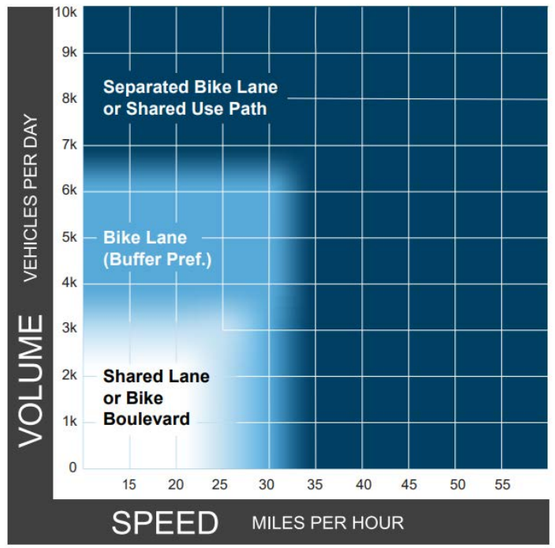
The Empire State Trail Design Guide is a document that was developed in 2017 to provide tools, references, and standards for stakeholders involved with permitting, designing, and constructing the 750-mile bicycle and pedestrian path spanning New York State. The Design Guide was primarily developed for state agencies, local governments, engineering design firms, and trail organizations, but can be used as a resource for anyone interested in learning more about the Empire State Trail. This compilation of guidelines and standards for shared use trails utilizes standards outlined by AASHTO, Americans with Disabilities Act, Association of Pedestrian and Bicycle Professionals, Architectural Barriers Act, Federal Highway Association, International Dark Sky Association, National Association of City Transportation Officials, and the National Park Service.

WIDTHS

For shared path segments separate from roadways, the standard width is 12 ft in heavy-use areas. In areas of moderate use or a low level of multiple user types, the minimum trail width is 10ft. If necessary, the trail may be constrained to 8ft for short distances only. A minimum 2ft shoulder clear of obstacles should be provided on both sides of the trail. Chemung County has established a standard trail width for multi-use trails of 12ft, with 10ft minimum allowed if necessary. Trail segments through Chemung County will follow their standards for multi-use trails.

The Chemung River Greenway is expected to connect to existing sidewalks, bike routes, and trails. In these cases, the trail width will assume the conditions of the existing path. If a new path will be developed through existing parks or conservation lands, the standards established by the property owner and/or lead organization will be adopted.

Figure 9: Preferred Bikeway Type for Urban, Urban Core, Suburban and Rural Town Contexts



Notes

1 Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
2 Advisory bike lanes may be an option where traffic volume is <3K ADT.
3 See page 32 for a discussion of alternatives if the preferred bikeway type is not feasible.

GRADES

The running slope of the Chemung River Greenway should follow the slope guidelines defined in PROWAG when developing segments accessible for users with disabilities. To meet PROWAG requirements, the running slope of a shared use path outside of the highway right of way must not exceed 1:20 (5%). When the shared use path is within the highway right of way, the running slope shall not exceed 1:20 except when the grade of the adjacent street exceeds 1:20. Additional considerations include trailhead signage that provides accessibility information such as trail gradient and segment length. Parking areas for accessible trails should include at least one accessible parking space per 25 vehicle parking spaces.

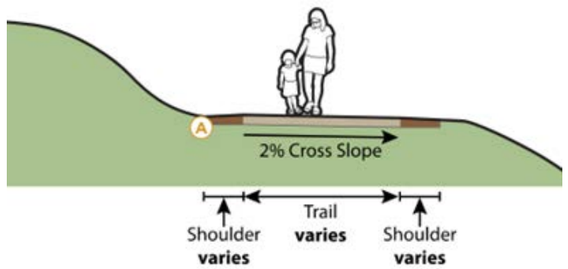
The New York State Standards and Guidelines for Trails for Biking Class 1 (Greenway Trail) should be followed in areas where ADA accessibility is unable to be achieved. These standards define a running slope of 0-5% maximum, 5-10% sustained, and 15% for segments shorter than 50ft.

A cross slope of 2% will allow for positive drainage on paved surfaces. The shoulders may be sloped up to 1:6 (16.67%), though 2% is preferred. The cross slope for accessible paths must not exceed 2%. The Empire State Trail Design Guide recommends a design of 1.5% cross slope to account for variations in construction tolerances.

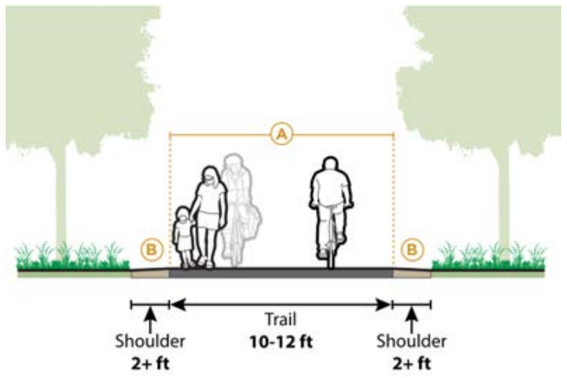
SURFACE MATERIALS

The majority of the off-road sections of the Chemung River Greenway will consist of standard asphalt pavement. The shoulder should be made of firm, compacted gravel or earth to allow for safe trail departure and recovery. The trail will be designed to accommodate H-20 loads for emergency and maintenance vehicles. The Chemung River Greenway is expected to connect to existing sidewalks, bike routes, trails, and parking areas. In these cases, the materials used will prioritize cohesiveness of the existing conditions and functions. If a new path will be developed through existing parks or conservation lands, the materials standards established by the property owner and/or lead organization will be adopted.

PROWAG requires walking surfaces and associated components for accessible pathways be stable, firm, and slip resistant. Materials used on pathways intended to meet accessibility requirements must meet these characteristics.



Typical shared use path section, 2017 Empire State Trail Design Guide, page 5-14.



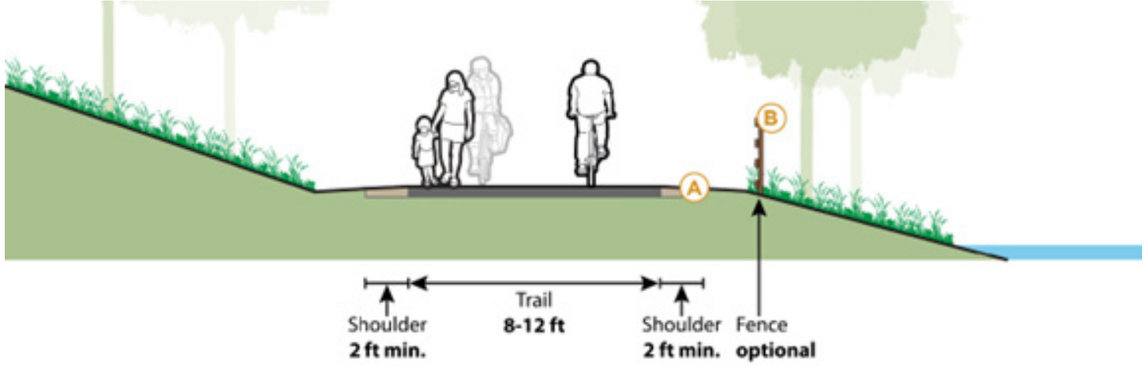
Typical shared use path section, 2017 Empire State Trail Design Guide, page 5-14.

BARRIERS AND DESIGN FEATURES

Barriers are expected to be utilized in various capacities along the Chemung River Greenway to serve a variety of functions. Trailheads will be designed to allow the passage of emergency and maintenance vehicles. Vehicle access will be discouraged without the use of bollards or gates unless site specific conditions warrant it. Access points should be equipped with clear signage delineating the pathway as a bicycle and pedestrian facility, prohibiting motor vehicle traffic. Trail amenities will be located outside of the trail shoulders in areas to minimize interference with utility maintenance and access.

Generally, lighting will not be installed along the trail. Trail lighting is recommended to along proposed segment 15-A Riverside and Painted Post Trailhead to Stewart Park and along the Riverside and Painted Post Trailhead. This recommendation results from conversation with stakeholders that identify routine activities after dark and a desire for improved safety. In unlighted sections, the Chemung River Greenway will be open for use from dawn to dusk only.

Steep slopes and waterways along a shared use path pose hazards to the user in the event of a trail departure. The Chemung River Greenway is expected to parallel waterways and steep slopes in some instances. When the trail is adjacent to waterways, ditches, or slopes steeper than 1:3 (33.3%), a 5ft separation between the edge of the path and the top of the slope is recommended. A physical barrier between the path and the slope should be considered if the slope is 1:2 (50%) or greater, within 5ft of the path, and has a 4ft or greater drop. Physical barriers should be installed at the top of the slope. Physical barriers to be considered include dense shrubbery, railing, or chain link fence. Aesthetics should be considered along with functionality of the physical barriers to provide a safe and welcoming experience to trail users.

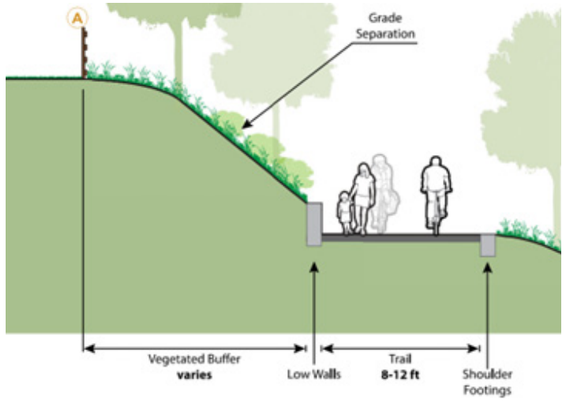


Typical Shared Use Paths Along Canals, 2017 Empire State Trail Design Guide, page 5-18.

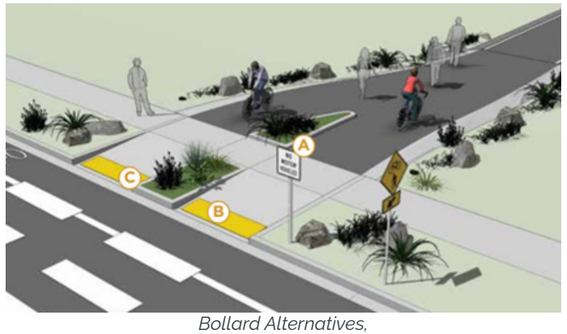
Clearly defining the trail edge can be achieved using vegetation, ditches, fencing, railings, walls, or ditches and aides in achieving visual and physical separation as needed. Features should be chosen based on what function they will serve. Landscaping and/or topography are recommended for barriers used solely as privacy screenings. When physical separation is needed to prevent trespassing, informal trail development, or to guard against a steep slope, the use of topography, ditches, semi-transparent fencing, and dense vegetation is recommended. Landscaping must utilize native species with no maintenance required. Railings on bridges, boardwalks, and steep drop-offs are subject to more specific guidelines, given the posed hazard.

Bollards serve many uses as a physical barrier and are a common type of barrier used to prevent motor vehicle traffic on trails. The use of bollards is not recommended by the AASHTO Bike Guide. The Chemung River Greenway will only use bollards in locations where there is a documented history of unauthorized vehicle passage. When bollards are to be used on handicap accessible trail segments, the installation shall not reduce the clear width of the pedestrian access path to less than 48 inches. Installation shall be in accordance with the MUTCD guidelines. Design features include "No Motor Vehicle" signage, a trail median at the trail entrance, and vertical curb cuts. If installing a trail median, each side of the median shall have a 7ft wide trail to allow multiple trail users and to discourage motor vehicle access. The median shall have low vegetation to allow emergency and maintenance vehicle access.

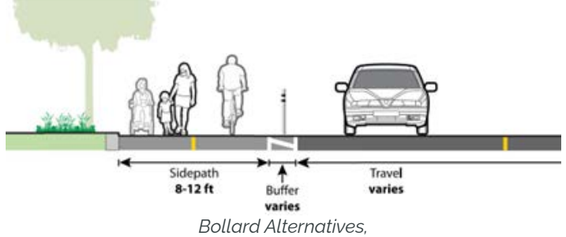
Trail segments along roadways must have a clearly defined separation. Separation buffers less than 5ft are not recommended. The barrier does not need to meet specifications to redirect errant vehicles. In accordance with the AASHTO Bike Guide 2012, the barrier should be crashworthy on high-speed roadways. Barries should have a minimum height of standard guiderail and should not interfere with existing sight distances at intersections. Physical barriers shall not be installed in locations that would hinder or prohibit vehicle access to driveways or private access points.



Trail Edge Definition,
2017 Empire State Trail Design Guide, page 5-28.



Bollard Alternatives,
2017 Empire State Trail Design Guide, page 5-34.



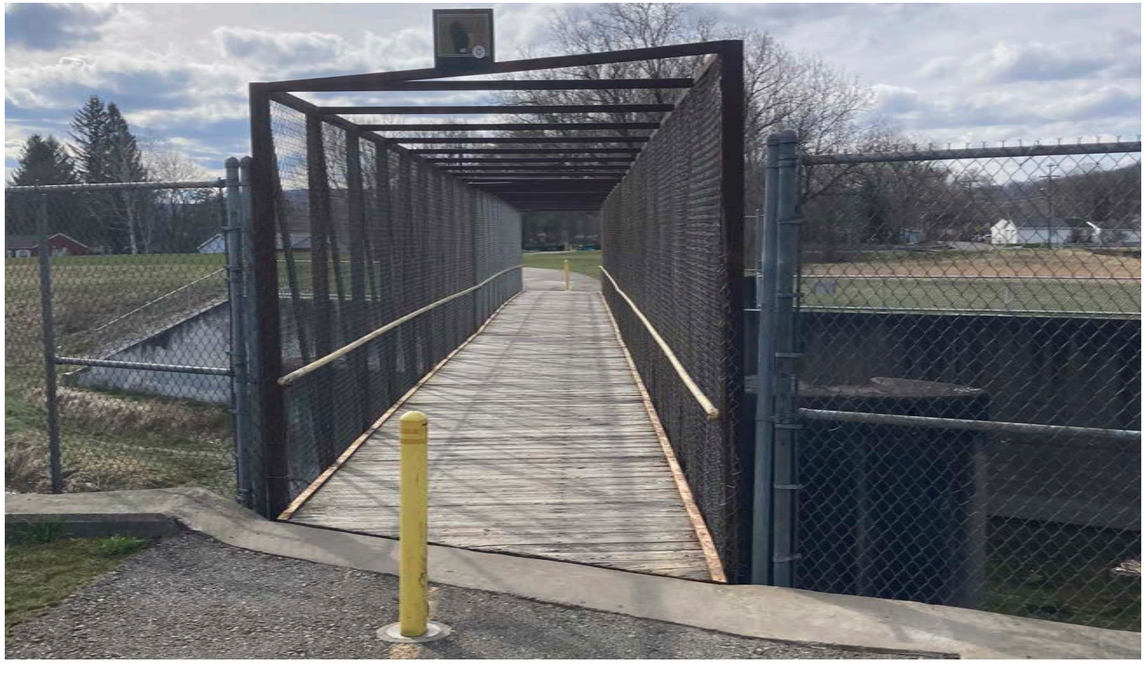
Bollard Alternatives,
2017 Empire State Trail Design Guide, page 5-34.

BRIDGES AND CULVERTS

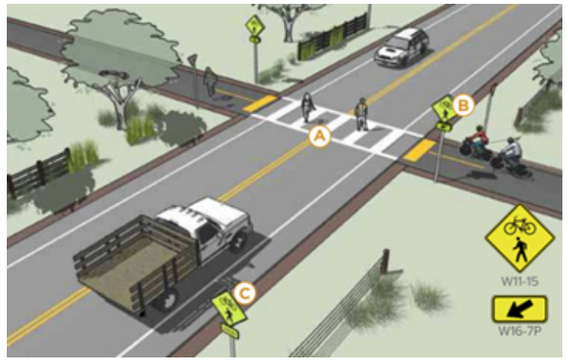
Trail bridges will be utilized to provide tail access over features that cannot be traversed using a culvert, such as stream and roadway crossings. Trail bridges will be designed to H-5 loading criteria with appropriate signage to allow access to emergency and maintenance vehicles. Emergency and maintenance access points will be determined during the planning stages to ensure each segment is accessible to the necessary vehicles and equipment. Shared use bridges should have a clear width of 12ft according to the NYSDOT Bridge Manual. A minimum 10ft vertical clearance should be maintained for emergency and maintenance vehicle access.

The Chemung River Greenway may encounter natural surfaces across its route that are not suitable for at grade path construction. Boardwalks allow trails to traverse creeks, wetlands, or areas of poorly drained soils. Boardwalks are often made of wood planks or recycled materials and have a variety of footing support alternatives that reduce the disturbance to sensitive areas, such as wetlands. Special permitting is often required in sensitive areas.

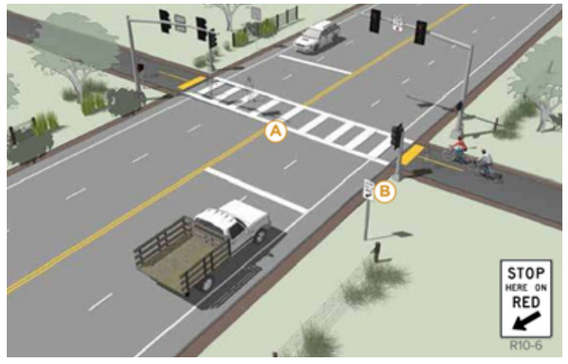
Trail Bridges, 2017 Empire State Trail Design Guide, page 5-36.



ROADWAY CROSSINGS AND ROUTES



Marked and Signed Crosswalk, 2017 Empire State Trail Design Guide, page 5-44.



Full Traffic Signal Crossing, 2017 Empire State Trail Design Guide, page 5-56.

Grade Separated Crossings, 2017 Empire State Trail Design Guide, page 5-58.

The Chemung River Greenway is expected to encounter a variety of road crossing scenarios along its route, each requiring unique design considerations to accurately address the safety of trail users and motorists. Shared use paths that intersect a road rated as a collector or minor arterial street between road intersections should utilize a marked and signed crosswalk. The midblock path crossing should be at least 250ft from an existing signalized intersection. For routes that are within 250ft of an existing signaled intersection, the shared use path should be directed to the intersection. All pavement markings and signage must comply with the MUTCD.

A full traffic signal crossing may be necessary to offer more security for an at grade road crossing. This type of crossing treats the path crossing as a 4-way intersection with a standard red, yellow, and green traffic signal for both the roadway and trail. A full traffic signal crossing is recommended at locations where a two-stage crossing cannot be implemented due to a crash history. For this system, the trail users activate the signal by push buttons located on the right-hand side of the trail, though other types of detectors may be used. A full traffic signal crosswalk must meet accessibility guidelines. Additional at grade crossing types identified in the 2017 Empire State Trail Design Guide include marked crosswalk with yield lines, median refuge island crossing, raised crosswalk, rectangular rapid flashing beacon crossing (RRFBs), and pedestrian hybrid beacon crossing (PHB).

Grade separated crossings link areas separated by barriers such as major transportation corridors, railways, and waterways and can be accomplished using an overcrossing or undercrossing depending on the need and site characteristics. These systems allow trail continuity for users and added safety of trail users and motor vehicles. Overcrossings require 10ft headroom and the clearance below the structure is dependent on the feature being crossed. Undercrossings require a minimum height of 10ft and a 1.5:1 width to height ratio is recommended.

IMPLEMENTATION AND MAINTENANCE PLANS

CREATING PARTNERSHIPS

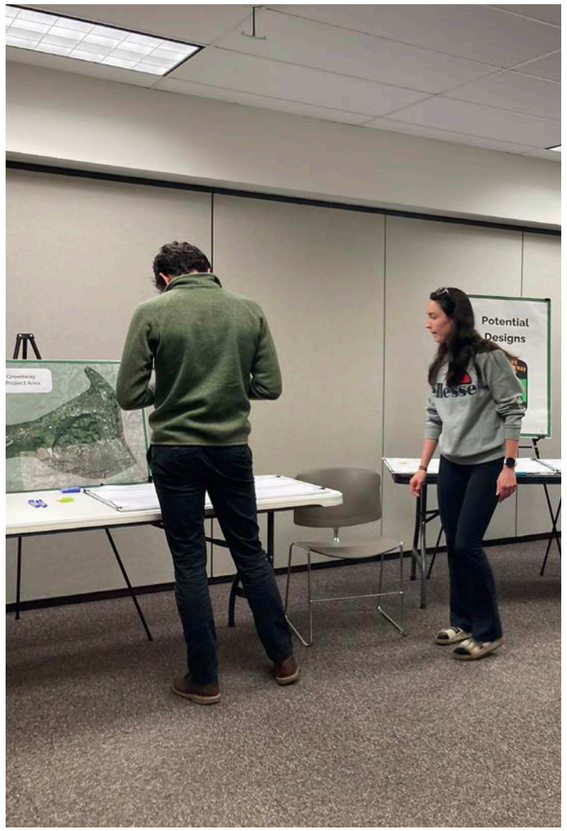
The success of the Chemung River Greenway hinges critically on continued community engagement and the development of enduring partnerships. Engaging the communities around the greenway fosters a sense of ownership and pride and ensures that the trail truly meets the needs and desires of those it serves. Regular forums, interactive workshops, and transparent communication channels are indispensable for cultivating a relationship with the communities that the greenway intersects and encourage active participation and feedback throughout the development process.

Equally important is the establishment of long-term partnerships with local governments, businesses, non-profits, and regional organizations. These partnerships form a robust support network that can provide the project with financial and material resources, advocacy, and legitimacy. Such collaborations ensure the greenway aligns with broader regional goals, tapping into more comprehensive initiatives and funding opportunities, thereby enhancing the project's scope and impact.

Phased implementation is another strategic element critical to the greenway's success. By focusing initially on priority projects—those segments that can be quickly realized and which promise immediate benefits to the community—the project can maintain momentum and build public support. Early wins provide tangible benefits that boost community morale and enthusiasm, which is crucial for sustaining long-term engagement.

Each phase should be planned with attention to community feedback and evolving needs, ensuring that each step in the expansion and enhancement of the greenway not only reflects the community's desires but also leverages the strengths of established partnerships. This approach guarantees that the Chemung River Greenway develops as a dynamic, responsive asset that grows organically with its community and partners.

For the Chemung River Greenway, achieving our goals requires concerted collaboration and diligent coordination across all phases of development. This complex process necessitates an ongoing, comprehensive planning effort tailored to each trail segment, reflecting the unique needs and characteristics of the Chemung region. Success will be realized progressively, with each project building upon the last, ensuring a cohesive and well-integrated network.



IMPLEMENTATION PLAN

DESIGN AND PLANNING

Advancing the design and construction of each segment of the Chemung River Greenway will require thorough environmental assessments, detailed engineering, and rigorous permitting processes. Collaboration with key regulatory bodies such as NYSDOT, NYSDEC, the Army Corps of Engineers, and the Federal Highway Administration will be essential. All projects will adhere to a stringent set of guidelines and regulations, including but not limited to the New York State Environmental Quality Review Act (SEQRA) and the Americans with Disabilities Act (ADA), ensuring that each segment not only enhances the community but also preserves the environmental integrity of the region. The planning process has pinpointed numerous segments and critical projects for the Chemung River Greenway. Initially, a select few of these will be developed as funding and resources permit. Annually, the project team will evaluate which segments can be realistically completed in short phases. This method ensures that each part of the trail can start providing benefits to the community promptly, fostering continued support and enthusiasm. Some larger or more complex segments may take several years to develop fully, but a phased approach allows for gradual, steady progress, with each phase building on the successes of the last.

- Years 1-2: Finalize the trail design and planning, focusing on integrating community feedback and environmental impact assessments.
- Years 3-5: Begin detailed planning for extensions and enhancements based on initial usage data, focusing on integrating features that reflect the community's preferences and environmental sustainability.
- Years 6-10: Finalize plans for full network connectivity, integrating new recreational areas and linking existing trails, based on continual community feedback and evolving environmental standards.

LAND ACQUISITION / LANDOWNER OUTREACH

Effective outreach and consensus-building are critical for moving the Chemung River Greenway beyond the planning stages. Engaging stakeholders early and continuously will create a foundation of support, facilitating the roll-out of projects across the community. As many trail segments will necessitate landowner permissions and easements, organizations like the Finger Lakes Land Trust and other committed stakeholders must collaborate closely. Together, they will develop strategies that make the trail appealing to landowners, including incentives and benefits aligned with conservation goals and community enrichment.

- Years 1-2: Three Rivers Development Corporation will initiate contact with priority landowners to discuss the project's benefits and secure necessary easements for the initial segments.
- Years 3-5: Begin limited development on natural surface trails that encourage early community use and buy-in as easements are secured.
- Years 6-10: Secure the remaining critical parcels and develop comprehensive land management strategies, ensuring they align with community needs and environmental preservation.

PUBLIC & STAKEHOLDER ENGAGEMENT / OUTREACH

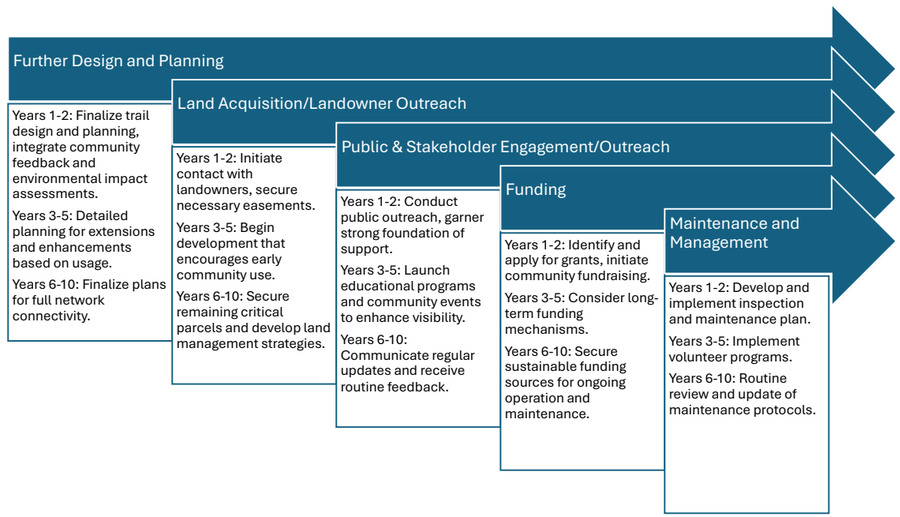
Effective outreach and consensus-building are critical for moving the Greenway beyond the planning stages. Engaging stakeholders early and continuously will create a foundation of support, facilitating the roll-out of projects across the community. As many trail segments will necessitate landowner permissions and easements, organizations like the Finger Lakes Land Trust and other committed stakeholders must collaborate closely. Together, they will develop strategies that make the trail appealing to landowners, including incentives and benefits aligned with conservation goals and community enrichment.

- Years 1-2: Conduct public forums and interactive workshops to gather input and actively promote the greenway, establishing a strong foundation of community support.
- Years 3-5: Ramp up community outreach efforts, including launching educational programs and community events to enhance visibility and foster deeper community connections.
- Years 6-10: Establish regular updates and feedback mechanisms to maintain and adapt to ongoing community engagement, ensuring the greenway evolves with its users.

FUNDING

Securing sustainable funding for the Greenway is a pivotal component of ensuring the project's long-term success and development. A multifaceted funding strategy that leverages a mix of local, state, and federal resources, alongside private donations and partnerships, is essential to advancing the project from conceptual plans to a fully operational and maintained greenway.

- Years 1-2: Identify and apply for grants, initiate community-based fundraising campaigns, and explore local government funding opportunities.
- Years 3-5: Evaluate and adjust the effectiveness of initial funding strategies, considering long-term funding mechanisms like bonds or dedicated taxes.
- Years 6-10: Secure sustainable funding sources for ongoing maintenance and future expansions, ensuring the financial stability of the greenway.



MAINTENANCE AND MANAGEMENT

Effective maintenance and management are critical to the long-term sustainability and success of the Chemung River Greenway. A proactive and comprehensive maintenance strategy should encompass regular upkeep, timely repairs, and continuous improvement, ensuring the greenway remains a safe, attractive, and functional asset for the community. This strategy should include routine inspections to monitor the infrastructure's integrity, vegetation control, trash removal, and the maintenance of signage and amenities. Management should focus on operational efficiency, employing both traditional workforce and volunteer efforts to maximize resources. Leveraging technology can enhance the efficiency of maintenance tasks by using management software that tracks maintenance schedules, costs, and workforce deployment. Additionally, the greenway management team should establish strong relationships with local municipalities and other stakeholders to ensure coordinated efforts and shared responsibilities, fostering a sense of community ownership and pride in the greenway. By maintaining high standards of care and responsive management practices, the Chemung River Greenway can provide enduring value, promoting environmental stewardship and community well-being.

Years 1-2: Develop and implement a maintenance plan that includes regular inspections and the establishment of quick-response repair teams.

Years 3-5: Implement volunteer programs for minor maintenance and trash removal and establish partnerships with local businesses for funding support.

Years 6-10: Regularly review and update maintenance protocols to ensure the greenway meets current and future community needs, adjusting strategies based on feedback and usage data.

ACTION TEAM MEMBERS

- Three Rivers Development Corporation: Lead design and planning, partner with municipalities to secure initial funding.
- Finger Lakes Land Trust: Partner with Three Rivers for land acquisition and relations with landowners
- Local Governments and Municipalities: Support with infrastructure and regulatory approvals, trail segment ownership.
- Community Organizations (e.g., Chemung River Friends): Lead public engagement efforts and help with volunteer mobilization.

VOLUNTEERS

- Community Involvement: Engage local cycling and hiking groups, environmental clubs, and community service organizations in ongoing maintenance efforts.
- Educational Partnerships: Involve schools and universities in educational outreach and environmental monitoring projects, enriching the educational landscape and fostering stewardship among students.

This comprehensive plan underscores the need for continuous community engagement and the development of long-term, dynamic partnerships that support the phased implementation of the Chemung River Greenway, ensuring it becomes a cherished and sustainable asset for the region.

MAINTENANCE PLAN

DESIGN AND PLANNING

Chemung River Greenway leverages local resources, stakeholders, and natural features to create a sustainable and beloved community asset. Aligning responsibilities for maintenance activities across government entities, contractors, volunteers, and non-profits is essential for sustainable operation.

Below is a structured approach to these tasks, categorized by the frequency and nature of the work required:

SPOT / INCIDENT (OCCURS AS NECESSARY OR WARRANTED)

Government Entities / Contractors

- Respond to citizen reports of issues or hazards.
- Remove major debris from the trail and adjacent areas.
- Secure and update temporary signage as needed.
- Manage detour routes and information dissemination during disruptions.
- Enforce policies and permit requirements for special events.
- Replace damaged or non-functioning lighting fixtures.

Volunteers and/or Non-Profits

- Assist in spot improvements and incident reporting.
- Water and care for new vegetation.
- Remove minor debris and place temporary signage.
- Help disseminate information to greenway users.
- Monitor activities during special events to ensure compliance and safety.

REGULAR (PROGRAMMED OR CONTINUOUS AT LOGICAL INTERVALS)

Government Entities / Contractors

- Schedule and conduct major maintenance tasks such as path weed treatment and mowing.
- Oversee trash disposal and the cleaning of amenities.
- Maintain and trim trailside trees.
- Perform sweeping with specialized machinery.
- Manage and replace bollards, locks, and trail signage.
- Conduct trail inspections and condition surveys.

Volunteers and/or Non-Profits

- Support minor maintenance tasks, including mowing and trimming of less critical areas.
- Clean trail shoulders and remove noxious weeds.
- Engage in trash collection and beautification projects like planting shrubs and flowers.
- Assist in locking and securing trailheads and access points.
- Provide manual sweeping and other simple maintenance tasks.
- Receive training to support accident monitoring and response.

LONG-TERM (REQUIRES MAJOR PLANNING, BUDGETING, AND COORDINATION)

Government Entities / Contractors

- Conduct regular maintenance of fences and structural elements.
- Update and maintain wayfinding and location signage along the greenway.
- Procure and replace major amenities as needed.
- Manage long-term habitat and environmental maintenance projects.
- Secure ongoing funding for large-scale projects and maintenance.
- Perform major infrastructural works like asphalt overlays, bridge maintenance, and drainage system upkeep.

Volunteers and/or Non-Profits

- Support the painting and maintaining benches, tables, and other small structures.
- Help pursue additional funding opportunities through grants and community fundraisers.
- Assist with large-scale planting and environmental stewardship activities.
- Participate in the maintenance of fencing and railings alongside contractors.

This structured maintenance plan ensures that the Chemung River Greenway remains a safe, enjoyable, and well-maintained community resource. Clear roles are delineated between the various stakeholders involved in its upkeep.

Table 8 - Annual Maintenance Plan for Chemung River Greenway												
Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Inspection & conditions survey	X			X					X			X
Graffiti removal	X	X	X	X	X	X	X	X	X	X	X	X
Hand tool sweeping			X	X	X	X	X	X	X	X		
Major mowing & trimming			X	X	X	X	X	X	X	X		
Machine Sweeping						X			X			
Planting shrubs, grasses & flowers			X	X						X		
Plant, trim trees			X							X		
Shoulder / borrow ditch clean-up				X					X			X
Trail edge, shoulder, gravel path weed control			X	X	X	X	X	X	X	X	X	
Trash collection & disposal	X	X	X	X	X	X	X	X	X	X	X	X
Water new vegetation				X	X							
Weed control & pest management				X	X	X	X	X	X	X		

Table 9 - Substantial Maintenance for Chemung River Greenway					
Tasks	As Needed	Spring	Fall	Every 10 Years	Every 20 Years
Asphalt patching	X	X	X		
Asphalt crack sealing		X	X		
Painting	X				
Overlay					X
Shoulder / borrow ditch protection & maintenance		X	X		

Note: This schedule is a general guideline and may be adjusted based on actual conditions, weather events, and other unforeseen circumstances affecting the greenway.

Funding: The annual maintenance cost is estimated at $2,000 per mile, with additional funding required for substantial maintenance activities. This will be secured through a combination of municipal funding, grants, donations, and volunteer contributions.

Responsibility: Routine tasks such as inspection, trash collection, and minor weed control will largely fall to volunteers and local community groups. The local government or professional contractors will coordinate larger scale and more technical tasks, such as asphalt work and substantial tree trimming. A regular audit of tasks and responsibilities will ensure the greenway is maintained to a high standard.

(This page left intentionally blank)

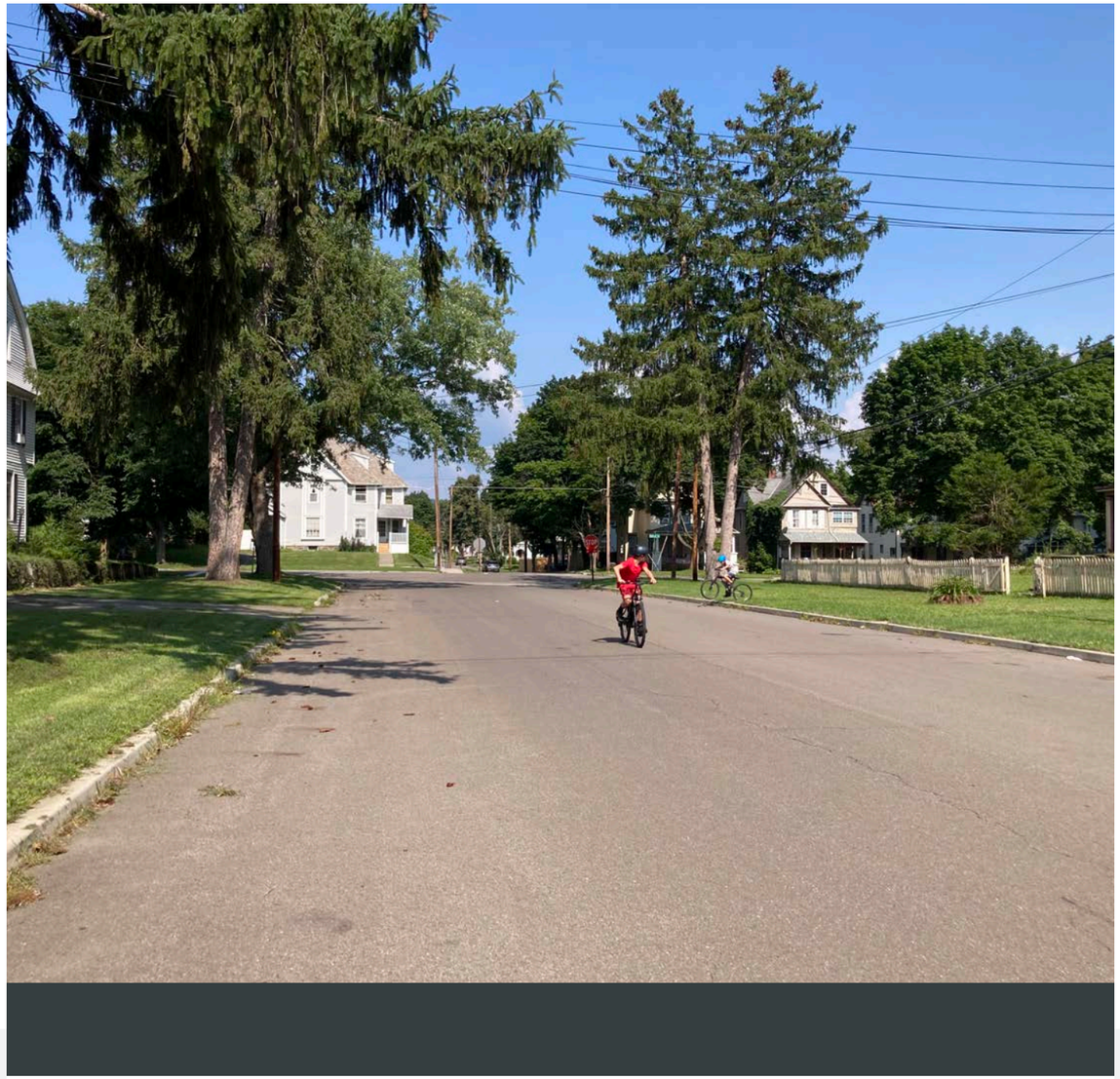
FUNDING

There are a variety of funding sources available to advance design and construction of the Chemung River Greenway project including local municipalities, county agencies, state agencies, and federal resources. Private donations and non-profit institutions also serve as technical and financial support to implement various aspects of trail related projects. Discussion with the Parks & Trails New York stakeholder group recommends the comprehensive review of grant funding opportunities currently available in the Grassroots Guide to Developing Greenway Trails, stated that they are working to increase funding available for greenway trails, and recommended a segmented approach to funding for transportation related trails in urban areas and recreational funding for trails in rural areas to best align with dedicated funding programs.

A comprehensive review of funding and grant opportunities for greenways is documented in Parks & Trails New York, Trails Across New York: A Grassroots Guide to Developing Greenway Trails, January 2024.

Agency	Funding Program	Eligible to Apply				Purpose or Use of Funds	Phase		Trail Type		Trailhead	Award Limits	Percent Match	Anticipated Notice of Funding Date	Website	Contact
		Municipal Government	Non-Profit	For-Profit	Other		Design	Construction	On-Street	Off-Street						
Appalachain Regional Commission	Area Development Program	✓	✓		Educational Institutions, IDAs, Economic Development Agencies	Funds to projects that align with key goals and NYS themes. Proposals will relate to one of the above goals and could include workforce training, basic skills, workforce assessments, economic development plans and strategies, child care and early childhood education, telecommunications, job related infrastructure, leadership, business development, necessary public infrastructure, educational excellence, local government assistance demonstrations, or rural health and mental health initiatives.	✓	✓	✓	✓	✓	Planning & Design $200,000 - Construction $500,000	50%	Last Opened April 2024, Closed September 2024	https://www.arc.gov/grants-and-opportunities/area-development-program/	Victoria Ehlen 607-962-5092 vEhlen@stcplanning.org
USDOT	Active Transportation Infrastructure Investment Program (ATIIP)	✓				Funds to plan, design, construct eligible projects to provide safe and connected active transportation facilities in an active transportation network or active transportation spine including sidewalks, bikeways, and pedestrian and bicycle trails, that connect between destinations within a community or metropolitan region. Improve safety, sustainability, equity, efficiency, reliability, connectivity, resiliency, workforce development, quality of life.	✓	✓	✓	✓		Planning & Design >$100,000 <$2M - Construction >$7.5M <$15M	20%	Last Opened March 2024, Closed June 2024	https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/	Kenan Hall Agreement Specialist 202-366-1533 ATIIP@dot.gov
USDOT	Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	✓				Funds for planning or constructing surface transportation infrastructure projects that will improve safety; environmental sustainability; quality of life; mobility and community connectivity; economic competitiveness and opportunity including tourism; state of good repair; partnership and collaboration; and innovation	✓	✓	✓	✓	✓	Minimum Award: $1M Maximum Award: $25M	0%	FY 2025 Deadline: January 13, 2025	https://www.transportation.gov/RAISEgrants	Andrea Jacobson 202-366-9603 RAISEgrants@dot.gov
USDOT	Reconnecting Communities Pilot Grant Program (RCP)	✓	✓	✓		RCP Program focuses on improving access to daily needs such as jobs, education, healthcare, food, nature, and recreation, and foster equitable development and restoration, and provide technical assistance to further these goals. Planning Grants fund the study of removing, retrofitting, or mitigating an existing facility to restore community connectivity; public engagement; and other transportation planning activities. Capital Construction Grants fund a project to remove, retrofit, mitigate, or to replace an existing eligible facility with a new facility that reconnects communities.	✓	✓	✓	✓	✓	Planning Max: $2M Construction Min: $5M Construction Max: $100M	50%	September 30, 2024	https://www.transportation.gov/reconnecting	reconnectingcommunities@dot.gov
NYSDOT	Transportation Alternative Program (TAP)	✓			Natural Resource Agencies, Local or Regional Recreational Trail Entity	TAP funds a variety of transportation related projects which increase options for non-vehicular transportation including: Planning, Design and Construction of infrastructure related projects to improve non-driver safety and access to public transportation and enhanced mobility. Construction of turnouts, overlooks and viewing areas. Safe Routes to School (enables and encourages children to walk or bike to school). Planning, design and construction of on-road and off-road facilities for pedestrians, bicyclists, and non-motorized transportation users. Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, and non-motorized transportation users.	✓	✓	✓	✓	✓	Minimum Award: $500,000 Maximum Award: $5M	20%	Bi-annual Program, Anticipated Fall 2025	https://www.dot.ny.gov/TAP-CMAQ	TAP-CMAQ@dot.ny.gov
NYSOPRHP	Recreational Trails Program (RTP)	✓	✓			Intended for trail-based projects that are primarily recreational in nature, development of trailside and trailhead facilities, construction of new trails, acquisition of easements and/or fee simple title.		✓		✓	✓	Maximum $250,000	20%	Anticipated 2025	https://parks.ny.gov/grants/.	Amanda Marsh 607-387-7041 amanda.marsh@parks.ny.gov
NYSOPRHP	Environmental Protection Fund Grants Program for Parks, Preservation and Heritage (EPF)	✓	✓			Parks Program - for the acquisition, development or planning of parks and recreational facilities open to the public to preserve, rehabilitate or restore lands, waters or structures for park, recreation, or conservation purposes and for structural assessments and/or planning for such projects. Examples of eligible projects include playgrounds, courts, rinks, community gardens, and facilities for swimming, boating, picnicking, hunting, fishing, camping or other recreational activities.	✓	✓		✓	✓	Maximum $675,000	50%	Anticipated Due July 2025	https://parks.ny.gov/grants/consolidated-funding-app.aspx	NYSOPRHPGrants@parks.ny.gov
NYSESD	Marekt New York - Tourism Capital	✓	✓	✓	Note: All applicants required Pro-Housing Community Program	Market New York is a grant program established to strengthen tourism and attract visitors to New York State by promoting destinations, attractions and special events. Funding is available for eligible projects that will create an economic impact by increasing tourism throughout the state.		✓	✓	✓	✓	Maximum is generally 20% of Total Project Cost	80%	Anticipated Due July 2025	Market New York - Tourism Grant Program | Empire State Development	RegionalTourism@esd.ny.gov
NYSESD	Capital Improvement Grants for Pro-Housing Communities Program	✓	✓		Note: All applicants required Pro-Housing Community Program	Capital improvement and placemaking projects located within pro-housing certified communities to invest in and create more vibrant communities. Capital improvement grants for projects within pro-housing communities are intended to foster economic development not only by being a catalyst to the increase in availability and access to housing, but also by stimulating community development and neighborhood growth through placemaking projects and the elimination and redevelopment of blighted structures. The focus of the program will be to incentivize capital investments within pro-housing communities to support infrastructure improvements, blight removal, and placemaking investments to create thriving and sustainable communities.		✓	✓	✓	✓	Maximum $3,000,000	50%	Anticipated Due July 2025	Capital Improvements Grants for Pro-Housing Communities | Empire State Development	nys-southerntier@esd.ny.gov

Agency	Funding Program	Eligible to Apply				Purpose or Use of Funds	Phase		Trail Type		Trailhead	Award Limits	Percent Match	Anticipated Notice of Funding Date	Website	Contact
		Municipal Government	Non-Profit	For-Profit	Other		Design	Construction	On-Street	Off-Street						
NYSDOS	Local Waterfront Revitalization Program	✓				This program helps communities breathe new life into their waterfront and underused assets in ways that ensure successful and sustainable revitalization. The Department encourages waterfront communities to prepare and implement Local Waterfront Revitalization Programs (LWRPs) with financial and technical assistance provided through this grant program. The Department encourages applications for projects which achieve more resilient waterfront communities. New York communities are increasingly vulnerable to more intense and frequent rain events, extreme heat, drought, and greater flooding and shoreline erosion caused by heavy rain, runoff, intense winds, and wave action which have been exacerbated by climate change.	✓	✓	✓	✓	✓	Maximum $2,000,000	25% or 15% for EJ, DAC Community	Anticipated Due July 2025	Local Waterfront Revitalization Program | Department of State	LWRP@dos.ny.gov
NYSOCR	Community Development Block Grant	✓			Note: Project must serve Low to Moderated Income communities	Objective of the CDBG program "is the development of viable urban communities by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income (LMI). Financial assistance will be provided for the development of projects that meet the NYS CDBG Program Objectives and that provide decent, safe affordable housing, access to clean drinking water, proper disposal of household wastewater, access to local public facilities, and economic opportunities for persons from LMI households by supporting development projects that are designed to create or retain employment opportunities. Revitalize the vibrancy of New York's communities and enhance the quality of life through improvements to public infrastructure and public facilities.	✓	✓	✓	✓	✓	Maximum $1,000,000	$0	Anticipated Due July 2025	https://hcr.ny.gov/system/files/documents/2024/07/2024-cdbg-pr-pw-pf-cp-rfa-cp-final.pdf	HCR_CFA@hcr.ny.gov
DASNY	State and Municipal	✓				Discretionary state funding for municipal capital projects administered by the state Dormitory Authority. For consideration		✓	✓	✓	✓	Typical awards range from $50,000 to $250,000. Occasional awards up to or beyond $1.5 million.	0%		https://www.dasny.org/about/what-we-do/grants-administration	grants@DANSY.org
US Senate Committee on Appropriations	Congressionaly Directed Spending	✓				The Congressionally Directed Spending process is an opportunity for to request direct federal funding to support local projects across New York that advance community priorities. It should be noted that only a handful of projects may be funded, and we cannot guarantee which projects will be selected. Projects are restricted to a limited number of federal funding streams, and only state and local governments and eligible non-profit entities are permitte		✓	✓	✓	✓	No limt set, but typically $500,000 to $1,000,000	0%	Anticipated Feb/March	FY25 Appropriations Requests - Kirsten Gillibrand | U.S. Senator for New York	Congressman Nick Langworthy | Representing the 23rd District of New York



SUMMARY OF PHASING AND COST ESTIMATES

ID	Description	Construction Subtotal	Easement/ROW Subtotal	Soft Costs Subtotal	Opinion of Probable Cost
0-TH	Lackawanna Trailhead	$2,550	$0	$842	$3,392
1-A	Lackawanna Trail to Pirozzolo Park to Trolley - Second Street	$3,386,040	$0	$1,218,975	$4,605,015
1-B	Lackawanna Trail to TrolleyTrailhead - NY Bike Route 15	$995,943	$0	$358,540	$1,354,483
1-TH	Pirozzolo Park	$17,050	$0	$6,138	$23,188
1-C	Pirozzolo Park to Trolley Trailhead	$4,332,029	$3,274	$1,589,168	$5,924,471
2-TH	Trolley Trailhead - Parking and Trail Head	$153,760	$0	$55,354	$209,114
2-A	Trolley Trailhead to Nature Conservancy	$6,174,415	$632	$2,243,789	$8,418,836
2-B	Trolley Trailhead to Kehoe Nature Preserve	$260,648	$0	$93,833	$354,481
3-TH	Nature Conservancy Mini-trail head	$98,873	$0	$35,594	$134,467
4-TH	Big Flats Trailhead	$197,194	$0	$70,990	$268,184
4-A	Big Flats Trailhead to Carpenter Road Trailhead	$3,398,680	$5,500	$1,254,275	$4,658,455
5-TH	Carpenter Road Trailhead	$71,300	$0	$25,668	$96,968
5-A	Carpenter Road Trailhead to Corning Incorporated Big Flats Plant Trailhead	$468,396	$8,500	$200,873	$677,769
6-TH	Corning Incorporated Big Flats Plant Trailhead	$1,550	$5,000	$3,058	$9,608
6-A	Corning Incorporated Big Flats Trailhead to Sperr Park	$3,134,482	$15,000	$1,165,914	$4,315,396
7-TH	Sperr Park Trailhead	$1,550	$0	$558	$2,108
8-TH	Big Flats Linear Trail Trailhead at Maple St and Winters Road	$6,975	$0	$2,511	$9,486
8-A	Big Flats Linear Trail at Maple St to Olcott Road	$1,572,630	$0	$566,147	$2,138,777
8-B	Big Flats Linear Trail to Big Flats Community Park	$307,158	$7,500	$129,327	$443,985
9-TH	Olcott Road Trailhead	$137,098	$0	$49,355	$186,453
9-A	Olcott Road to Beverly's Pond	$1,242,277	$30,100	$462,270	$1,734,646
10-TH	Big Flats Community Park	$55,800	$0	$20,088	$75,888
11-TH	Beverly's Pond	$1,550	$0	$558	$2,108
11-A	Beverly's Pond to Guthrie Hospital	$3,705,606	$8,000	$958,401	$4,672,007
12-TH	Guthrie Hospital Trailhead	$216,613	$0	$77,981	$294,593
12-A	Guthrie Hospital to Denison Park	$7,210,135	$8,500	$2,599,899	$9,818,534
12-B	Guthrie Hospital Loop	$1,650,853	$42,000	$615,307	$2,308,161
12-C	Guthrie Hospital Feeder Canal to Goff Road	$2,011,352	$42,000	$745,087	$2,798,439
13-TH	Denison Park	$3,100	$0	$775	$3,875
13-A	Denison Park to YMCA	$1,664,607	$34,500	$616,509	$2,315,616
13-B	Riverside Centennial Park to Corning Wegmans to Segment 14-A	$776,364	$45,750	$302,366	$1,124,480
14-TH	YMCA	$45,725	$0	$16,461	$62,186
14-A	YMCA to Painted Post Trail via roadways	$2,159,036	$98,000	$826,253	$3,083,289
W-TH	Corning Wegmans Trailhead	$61,225	$50,000	$47,041	$158,266
15-TH	Riverside/Painted Post Trailhead	$429,893	$50,000	$209,761	$689,654
15-A	Riverside/Painted Post Trailhead to Stewart Park	$2,177,202	$50,000	$838,793	$3,065,995
16-TH	Craig Park Trahilhead	$1,550	$0	$558	$2,108
16-A	Craig Park to Kinsella Park	$2,343,755	$65,600	$876,552	$3,285,907
17-TH	Kinsella Park Trailhead	$55,800	$0	$20,088	$75,888
17-A	Kinsella Park to First Responders Honor Park	$9,712,706	$132,500	$3,618,824	$13,464,031
17-B	Spur to Erwin Valley Elementary School	$508,204	$27,100	$171,093	$706,397
18-TH	First Responders Honor Park	$6,975	$0	$2,511	$9,486
18-A	First Responders Honor Park along Jones Road to Bad Bear Hill Parking	$13,307,370	$21,000	$4,816,153	$18,144,523
19-TH	Bad Bear Hill Parking	$117,537	$0	$42,313	$159,850
TOTAL					**$101,890,000**

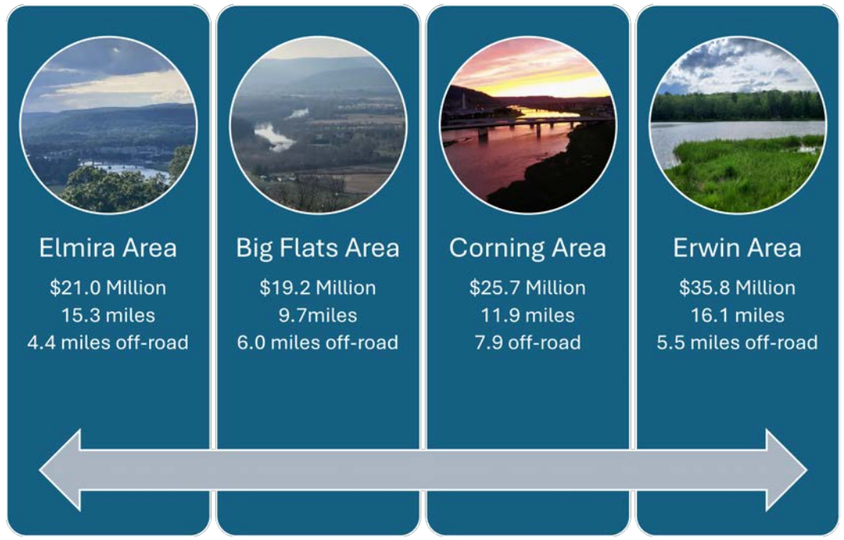
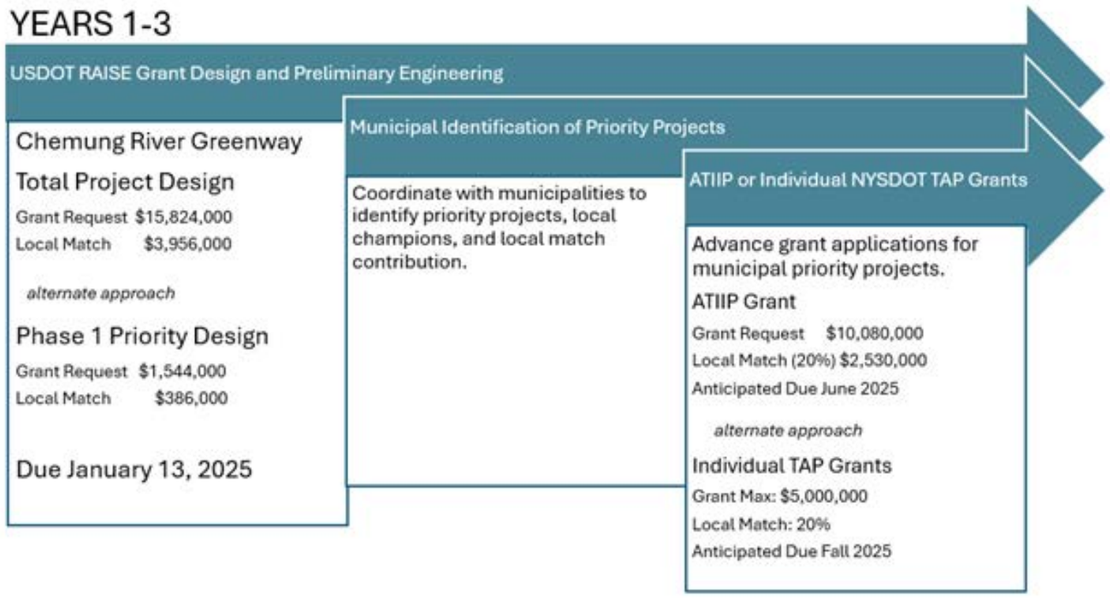


Figure 13 - Final Trail Segment Evaluation Matrix, August 2024

SECTION	Accessible for All to Use / Ease of Use	Connectivity			Support			Constructability			User Experience	
		Safety	Services	Physical Activity	Stakeholder	Key Partners	Landowner	Cost Factors	Smarth Growth	Flood	Visual	Separation
	Provides the greatest level of use for all abilities. Percent of trail that is greater than 5% grade. The lower the %, the more accessible.	*Improves safety for bicyclists and pedestrians, congested areas, crossings, parking. Direct access to local sidewalks or paths.*	*Route provides pedestrian connection to housing, jobs, schools, and services. Opportunity to stimulae economic development.*	*Connects populations for social interaction, neighborhood building, physical activity, and recreational opportunity. Connection to recreation centers.*	*Stakeholder support for the alignment.*	*Municipalities and key stakeholders supoort of the alignment.*	*Landowners have indicated they may be amendable, ROW exists, etc.*	*Including factors that drive costs, such as easements, ROW, relocations or design around utilities, crossing of waterways and roads, and design of terrain.*	*Route takes advantage of former or existing infrastructure such as former railway, trolley line, canal tow path or other.*	*Flood control structure, floodway, flood zone classification. Consideration of durability.*	*Route provides visual or other interest that adds to the overall experience.*	*Percentage of trail that is not adjacent to or on major roadway.*
ELMIRA AREA												
1-A						TBD						
1-B												
1-C						TBD	TBD					
2-A						TBD	TBD					
2-B						TBD						
BIG FLATS AREA												
4-A							TBD					
5-A							TBD					
6-A							TBD					
8-A												
8-B												
9-A							TBD					
11-A							TBD					
CORNING AREA												
12-A						TBD	TBD					
12-B						TBD						
12-C						TBD	TBD					
13-A						TBD						
13-B						TBD						
14-A						TBD	TBD					
15-A						TBD	TBD					
ERWIN AREA												
16-A							TBD					
17-A							TBD					
17-B							TBD					
18-A							TBD					

Highly Favorable
Somewhat Favorable
Highly Unfavorable



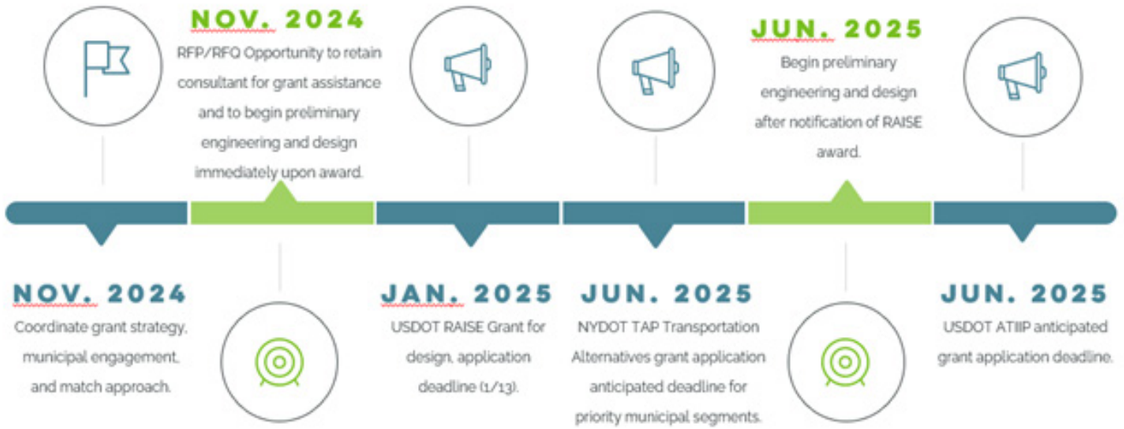
	Advance	Recommended Funding Resources
Years 1-3 Design and Preliminary Engineering	Design and Preliminary Engineering • Legal, Finance, Admin • Preliminary Design • Engineering Design • Coordinate with landowners and stakeholders for easements • Flood Modeling/No Rise • Railroad Coordination • Roadway Coordination • Engineering, Administration, and Legal Contingency	RAISE Grant Full Design • Grant Request $15,824,000 • Local Match $3,956,000 *alternate approach* RAISE Grant Phase 1 Priority Design • Grant Request $1,544,000 • Local Match $386,000 • Due 1/13/2025

Notes:
1) This design cost estimate does not include Construction Inspection/Administration
2) This cost excludes any costs associated with environmental remediation of the site, as these costs are dependent on site characteristics and contaminants identified.

	Advance	Total Miles	Opinion of Probable Cost	Number of Easements to Secure	Recommended Funding Resources
Years 1-3 Construction	Secure Funding and Begin Construction on Priority Segments and Related Trailheads: • 8A – Big Flats at Maple St to Olcott Rd South & 8-TH, 9TH • 8B – Big Flats Trail to Big Flats Community Park & 10TH • 12-B Guthrie Hospital Loop • 13A - Corning Denison Park to YMCA & 13TH, 14-TH • 13B – Corning Centennial Park to Wegmans & W-TH • 14A – Corning YMCA to Riverside/Painted Post Trail & 15-TH	 0.90 miles 0.56 miles 0.84 miles 1.30 miles 0.75 miles 1.99 miles	 $2,335,000 $520,000 $2,308,000 $2,382,000 $1,283,000 $3,780,000	 0 1 1 2 3 3	ATIIP Grant for All Priority Projects in Single Application Or TAP Grants for Individual Municipalities
Total		6.34 miles	$12,600,000		

INITIAL FUNDING OPPORTUNITIES

NEXT STEPS & STRATEGY



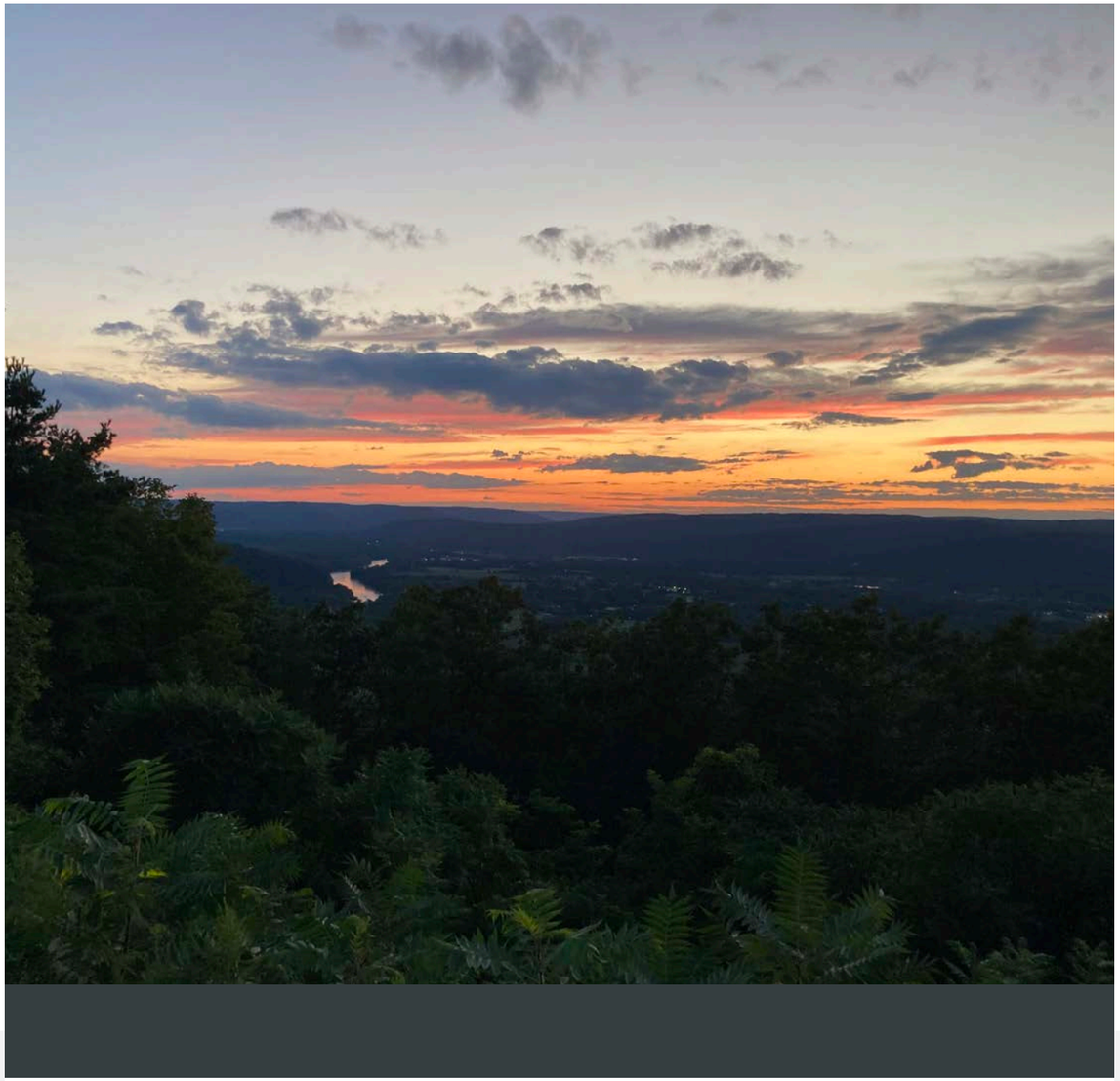
** Assumes similar grant application deadlines and frequencies as 2024*

	Advance	Total Miles	Opinion of Probable Cost (2026)	Number of Easements to Secure	Recommended Funding Resources
Years 3-5	Secure Funding and Begin Construction on Segments				
	• 1-A Lackawanna Trail to Pirozzolo Park to Trolley – Second Street & 0-TH, 1-TH	5.02	$4,632,000	4	To Be Determined based on notices of funding
	• 1-C Pirozzolo Park Riverside Trail	1.78	$5,925,000	20	
	• 4-A Big Flats Trailhead to Carpenter Road Trailhead & 4-TH, 5-TH	3.67	$5,024,000	14	
	• 5-A Carpenter Road Trailhead to Big Flats Plant Trailhead & 6-TH	0.85	$687,000	2	
	• 6-A Big Flats Plant Trailhead to Sperr Park & 7-TH	1.18	$4,318,000	5	
	• 9-A Olcott Road S to Beverly's Pond & 11-TH	0.80	$1,735,000	3	
	• 11-A Beverly's Pond to Guthrie Hospital	1.69	$4,672,000	8	
	• 12-A Guthrie Hospital to Denison Park & 12-TH	4.70	$10,113,000	12	
	• 12-C Guthrie Hospital Feeder Canal to Goff Road	1.52	$2,799,000	8	
	• 15-A Riverside/Painted Post Trailhead to Stewart Park	0.84	$3,066,000	3	
	• 16-A Craig Park to Kinsella Park & 16-TH, 17-TH	1.37	$3,364,000	6	
	• 17-A Kinsella Park to First Responders Honor Park & 18-TH	3.09	$13,474,000	19	
	• 17-B Spur to Erwin Valley Elementary	0.28	$706,000	5	
Total		26.78	$60,515,000		

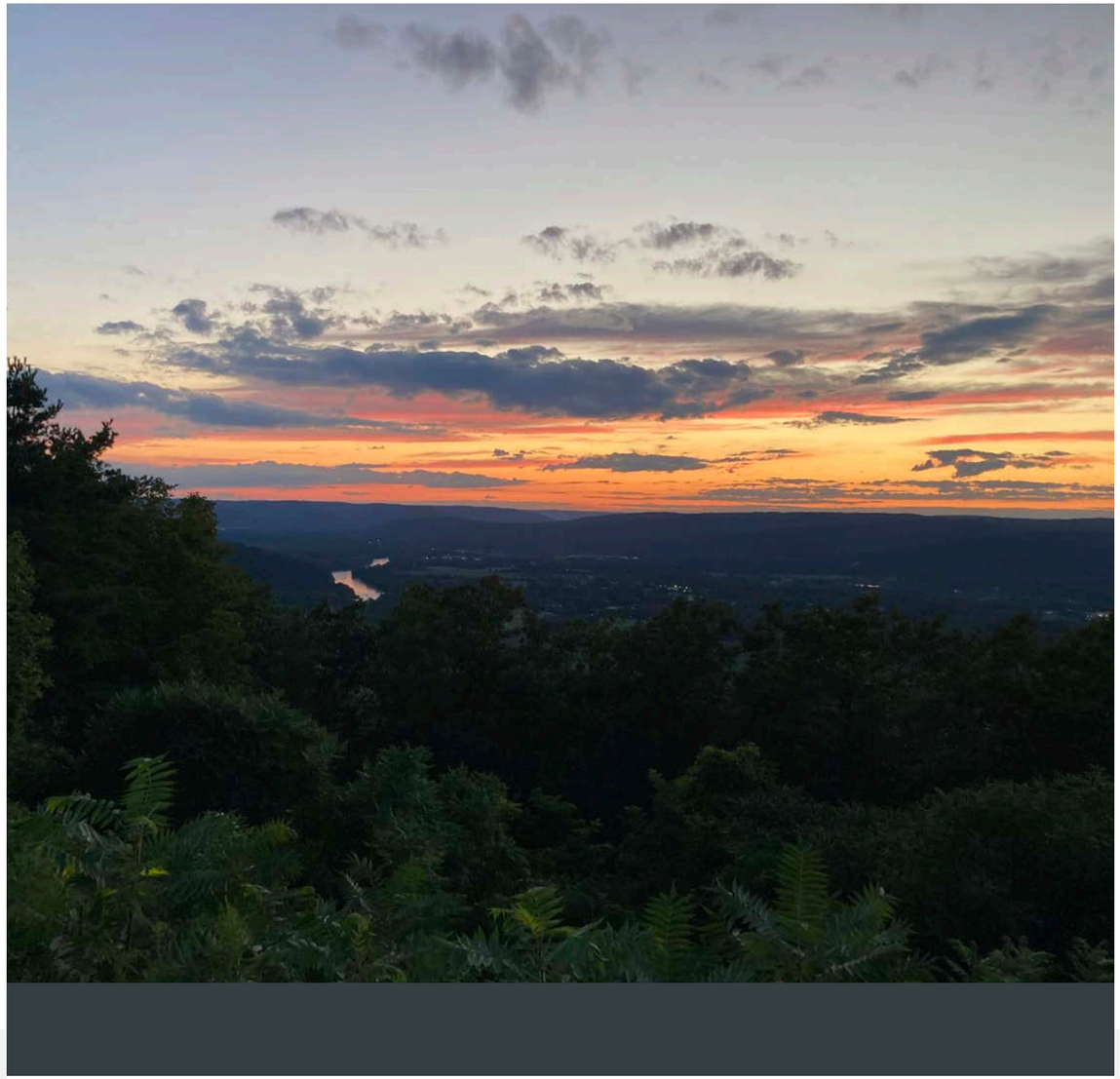
Notes:
1) Complete design if not completed in Years 1-2.
2) Note Segment 1-B not selected.
3) Update cost estimates prior to grant submission.

	Advance	Total Miles	Opinion of Probable Cost	Number of Easements to Secure	Recommended Funding Resources
Years 6-10	Secure Funding and Begin Construction on Segments:				
	• 2A – Elmira/Big Flats Trolley Trailhead to Nature Conservancy & 2-TH, 3-TH	1.88	$8,763,000	7	To Be Determined based on notices of funding
	• 2B – Trolley Trailhead to Kehoe Nature Preserve	1.79	$355,000	1	
	• 18A – Erwin/Addison/Lindley First Responders Honor Park to Bad Bear Hill & 19TH	11.36	$18,305,000	7	
Total		15.03	$27,421,000		

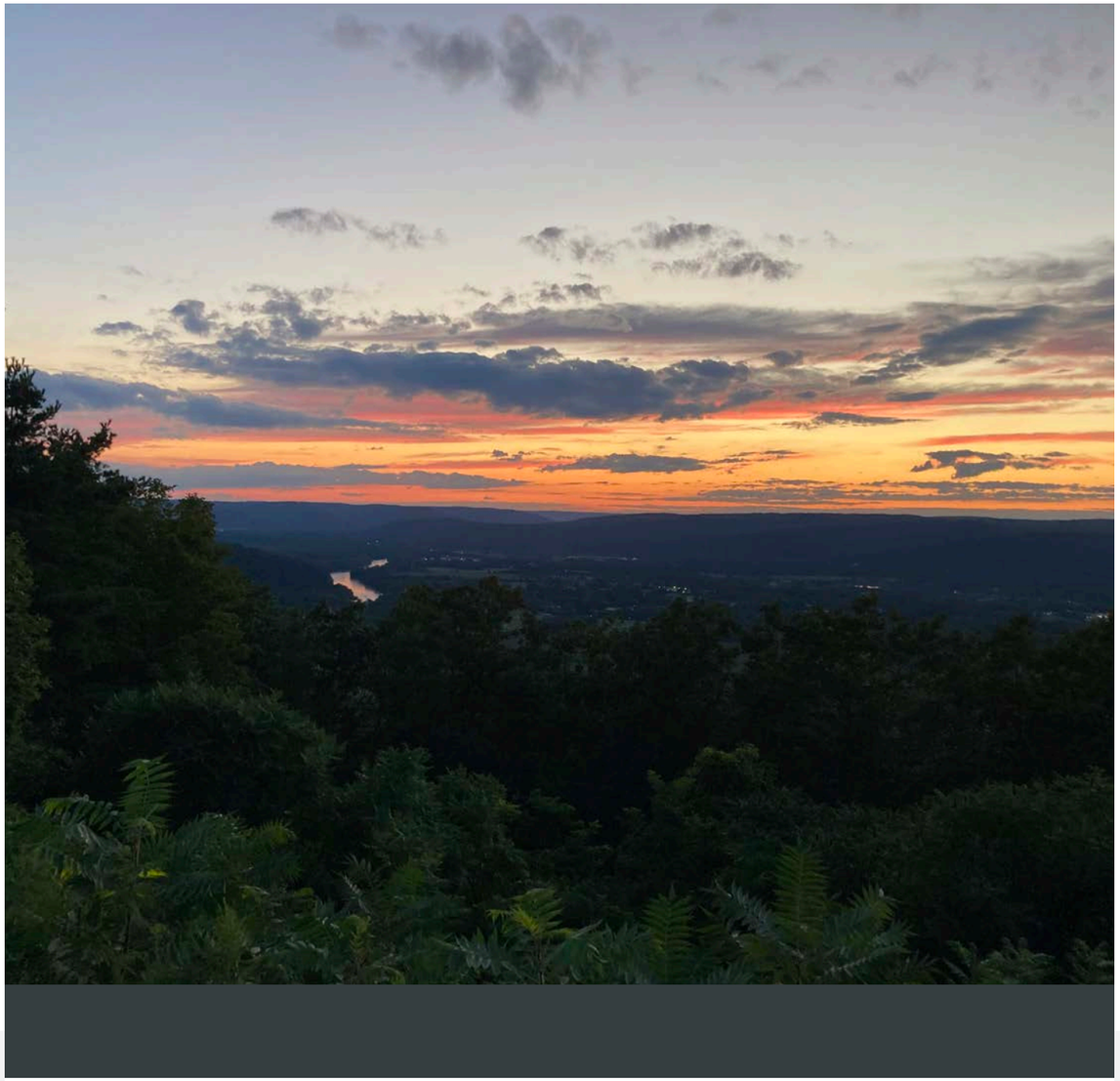
Notes:
1) Re-evaluate design if completed in Years 1-2, Complete design if not previously completed.
2) Cost Estimates will require update based on revised design and escalation over time.
3) Recommended funding resources will require investigation at time of solicitation.



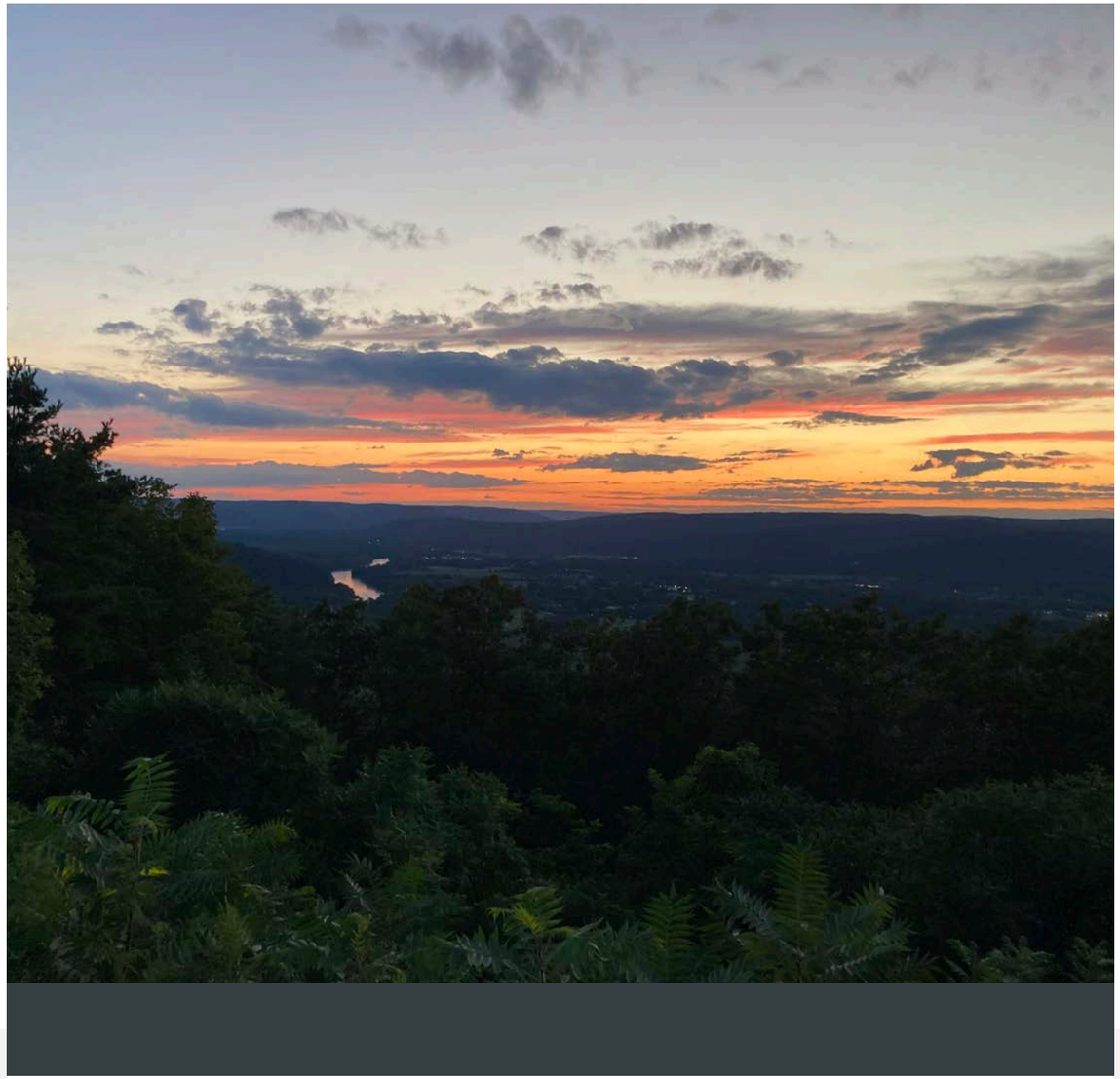
APPENDICES



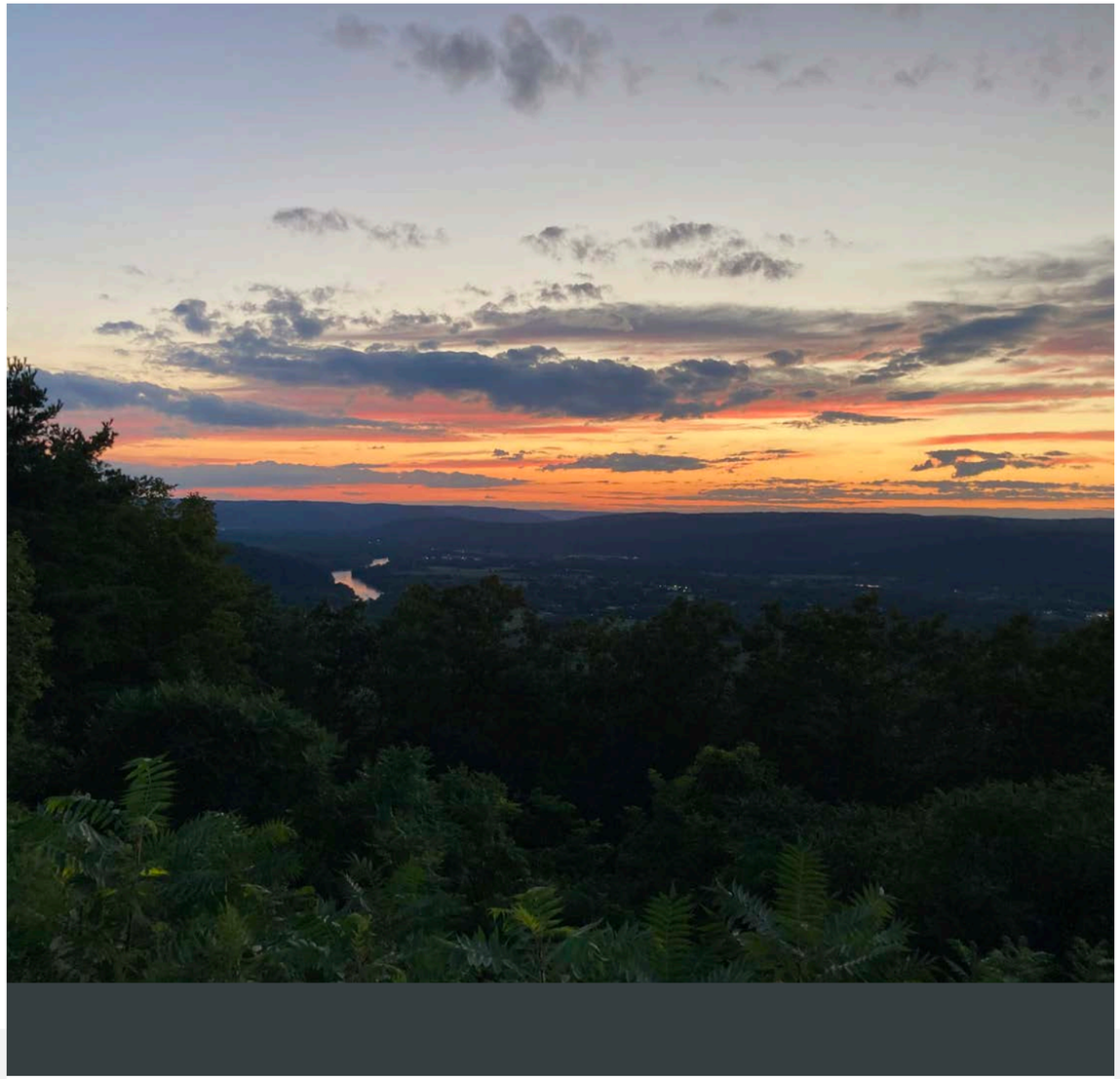
APPENDIX A: PROJECT LOCATION MAPS



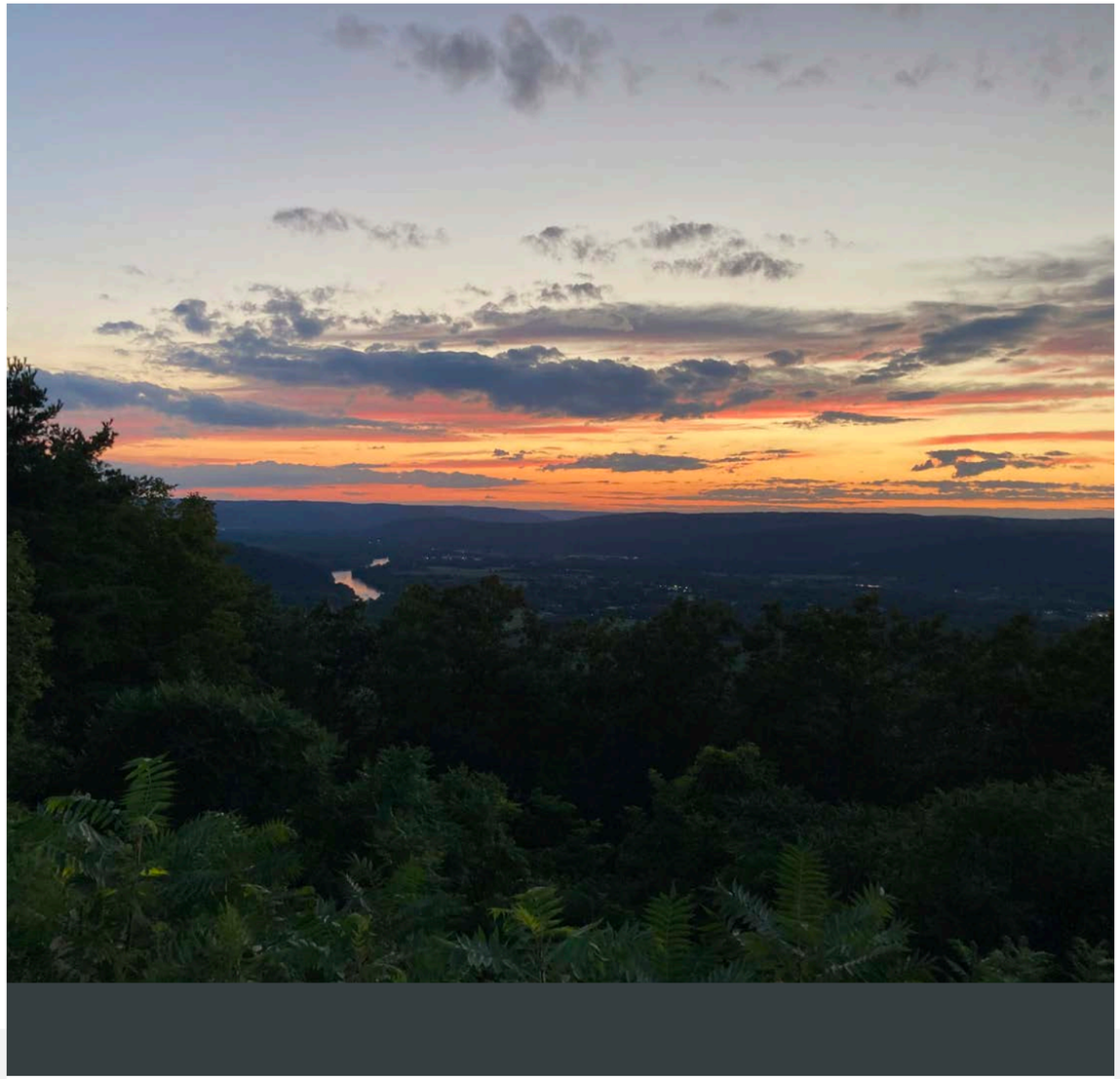
APPENDIX B: PROJECT AREA ENVIRONMENTAL MAPS



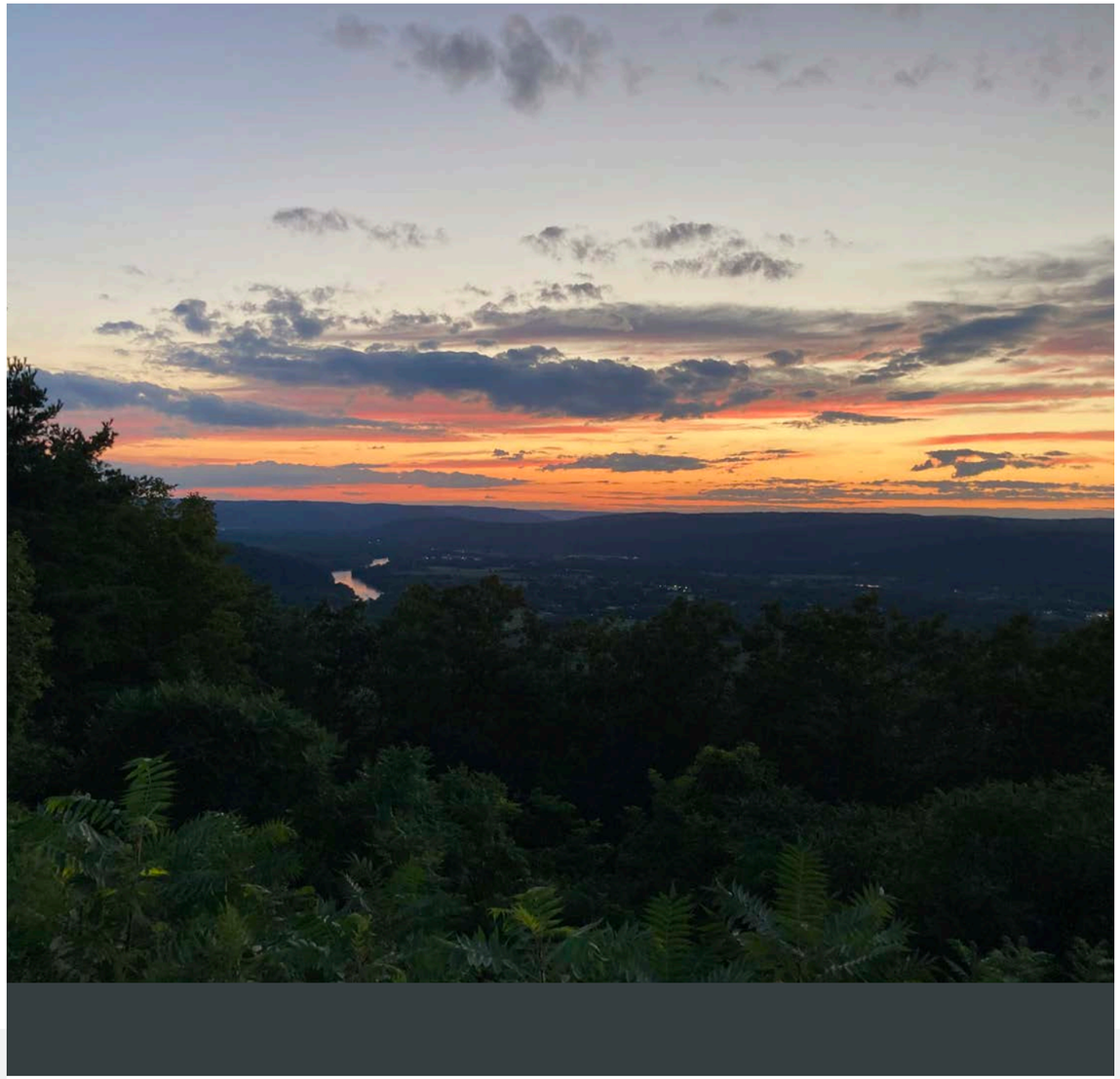
APPENDIX C: SEGMENT AREA MAPS



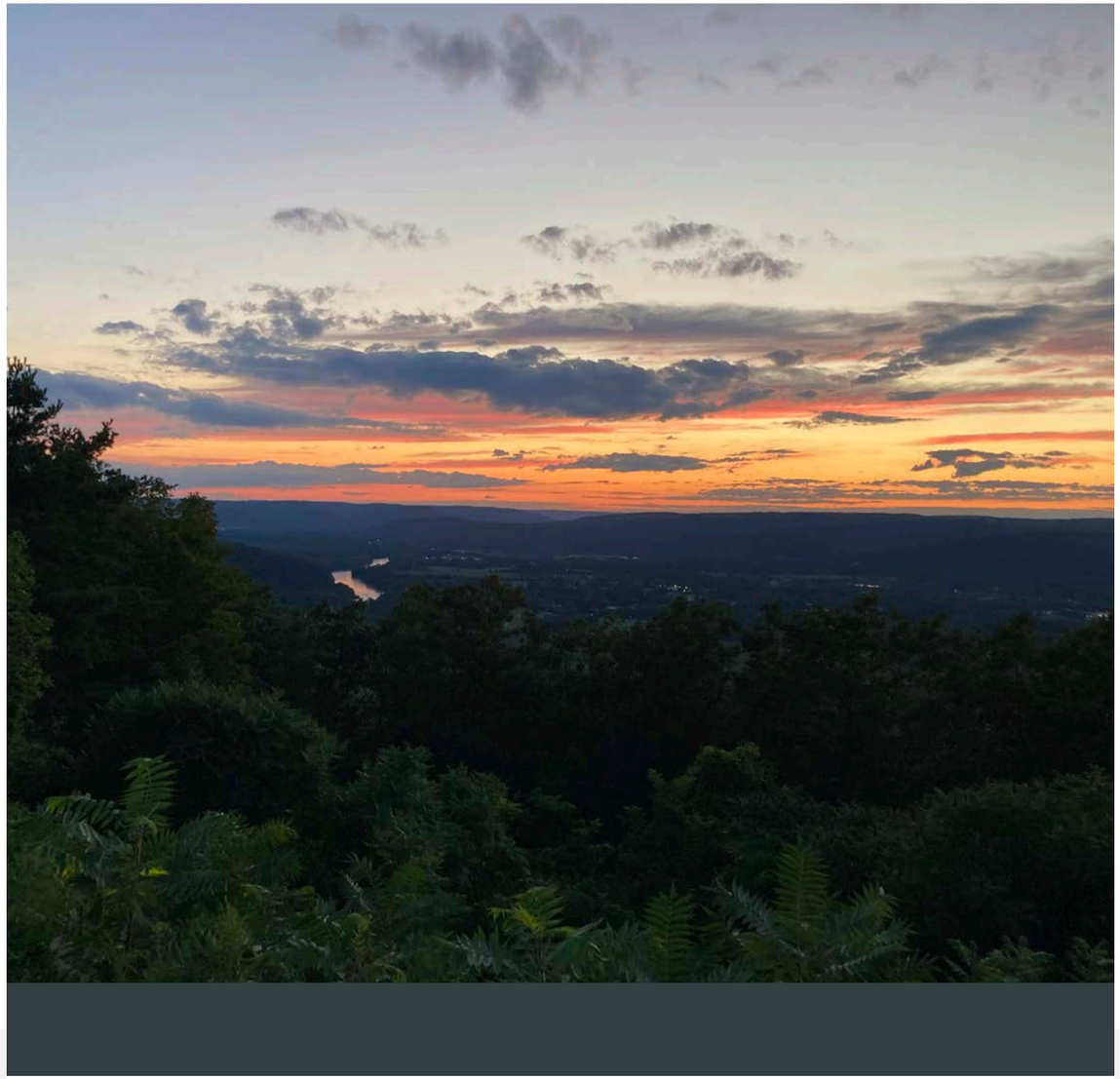
APPENDIX D: COMMUNITY ENGAGEMENT



APPENDIX E: TRAIL AND TRAILHEAD SUMMARY INFORMATION



APPENDIX F: TRAIL SEGMENT COST ESTIMATES



APPENDIX G: EASEMENT COST ESTIMATES