



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN

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CATTARAUGUS COUNTY

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1.0 EXECUTIVE SUMMARY



INTRODUCTION

The purpose of the Cattaraugus County Countywide Trail System Plan is to preserve and promote the County's natural resources, maximize opportunities for outdoor recreation, and capitalize on the outdoor tourism industry.

Project goals include:

- Surveying existing trails,
- Determining the feasibility of connecting existing trails within and beyond Cattaraugus County,
- Identifying potential trail corridors,
- Recommending trail improvements and potential new trails.



TRAIL BENEFITS

The extensive benefits of trails were documented for this study. These benefits include decreased impact on the environment through reduced motor vehicle usage and increased environmental awareness, health benefits through increased physical activity and reduced stress, and economic benefits through increased tourism.

INVENTORY & ANALYSIS

The study included an inventory and analysis phase where the existing conditions in and around Cattaraugus County were assessed. Topography, soils, ecological character, habitat, drainage, wetlands, land use, municipal boundaries, destinations, property ownership, access, circulation, and infrastructure were evaluated. The project addresses a number of opportunities and constraints which include: an extensive park system within Cattaraugus County, other types of tourism within the County, habitat diversity, scenic views, historic resources, and property ownership.

TRAIL USER GROUPS

Cattaraugus County has a robust trail system, used by many different user groups, each with its own needs and preferences. This section discusses different types of trail users, including bicyclists, pedestrians, emerging user groups, winter sports enthusiasts and equestrians.

The County has many volunteer organizations that represent different trail user groups. These organizations are an asset to the County trail system. This section also discusses how the County can benefit most from these organizations and provide additional coordination between them.

COMMUNITY INPUT

The planning process for this study included outreach to both the general public and to key stakeholders. Representatives from various organizations served on the steering committee, and provided continuity and study oversight. In addition, input from the public was solicited using web based crowdsourcing applications, online mapping and online surveys.



RECOMMENDATIONS

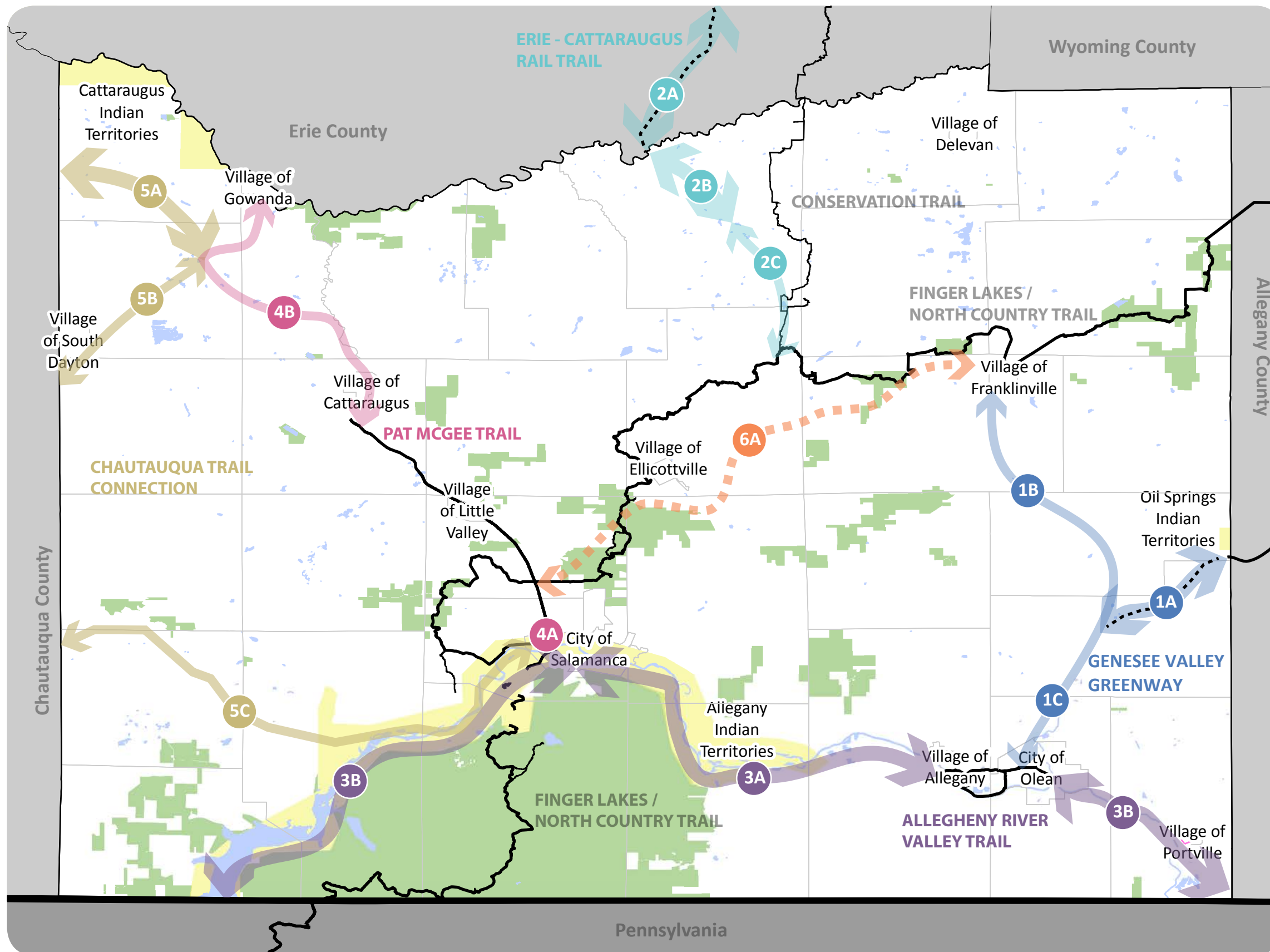
Recommendations for the Cattaraugus County Countywide Trail System Plan include:

- Improving and expanding ADA accessible, paved trails within the County, particularly in the Cities and Villages.
- Increasing the number of trail access points within the trail system and mapping existing trail access points.
- Developing connections between existing trails, including the Pat McGee Trail, Finger Lakes Trail, and trails within the State Park system.
- Connecting to the larger western New York trail network, including connections to Chautauqua Lake, Letchworth State Park, the Genesee Valley Greenway and Erie-Cattaraugus Rail-Trail.
- Developing a signage system to make trail wayfinding simple and to create a consistent identity for the Cattaraugus County Trail System.
- Providing additional mapping, both paper and digital, to make it easier for both tourists and residents to find trail access points and plan trail excursions.
- Creating events to increase public awareness of the trail system.
- Encouraging business developments in the Cities of Salamanca and Olean and Villages throughout the County to support tourism.
- Participating in the North Country Trail Association Trail Town program.

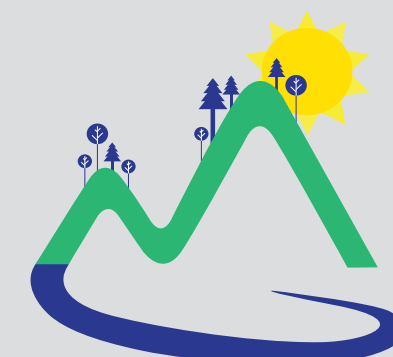
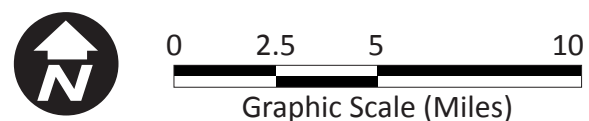
A full list of recommendations is included in Table 1 at the end of this executive summary.

IMPLEMENTATION

This section includes information regarding phasing, SEQRA documentation, the permitting process, and funding. Appendices are included that provide more detailed information on funding, the community impact of trails, potential areas of conflict between trail users, and sustainable trail construction.



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



**CATTARAUGUS COUNTY
TRAIL NETWORK**

**FIGURE 1
POTENTIAL REGIONAL
TRAIL CONNECTIONS**

- Existing Regional Trails
- - - Regional Trails Under Development
- ↔ Rail to Trail Opportunities
- ↔ Rail with Trail Opportunities
- ⋈ Summer Multiuse - Snowmobile Trail Opportunity
- Park Boundaries
- Seneca Nation of Indians
- ① Genesee Valley Greenway Connection
- ② Erie Cattaraugus Rail - Trail Connection
- ③ Allegheny River Trail
- ④ Pat McGee Trail Extension
- ⑤ Chautauqua Trail Connection
- ⑥ Franklinville- Pat McGee Trail



Table 1: Project Phasing

Project Name	Project Description	Priority Level
1. Genesee Valley Greenway Connection	a. Complete segment from Cuba NY in Allegany County to Hinsdale NY in Cattaraugus County along abandoned railway	Priority
	b. Trail connecting Genesee Valley Greenway in Hinsdale to Finger Lakes / North Country Trail in Franklinville, possible routes along active railway or existing snowmobile trail	Recommended
	c. Trail connecting Genesee Valley Greenway in Hinsdale to City of Olean, possible route along active railway	Recommended
2. Erie Cattaraugus Rail - Trail Connection	a. Support Erie- Cattaraugus Rail- Trail to complete proposed trail to County line (Town of Ashford) along abandoned railway	Priority
	b. Work with Erie Cattaraugus Rail- Trail to extend trail into Cattaraugus County along abandoned railway. Trail ends in Town of Ashford	Priority
	c. Create trail connecting Erie Cattaraugus Rail - Trail to Finger Lakes / North Country Trail & Conservation Trail. Possible route along active railway.	Priority
3. Allegheny River Trail	a. Expand and connect rail to trail projects along Allegheny River to create new major County trail from City of Salamanca to Village of Allegany / City of Olean along abandoned railway	Recommended
	b. Continue trail west from Pennsy trail and east from Allegheny River Valley Trail along abandoned railway to County line.	Possible
4. Pat McGee Trail Extension	a. Extend trail south to connect to City of Salamanca, Pennsy trail and Allegany State Park	Recommended
	b. Extend trail north to connect to Village of Gowanda and Zoar MUA, possible route along active railway	Recommended



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Project Name	Project Description	Priority Level
5. Chautauqua Trail Connection	a. Connection from northern edge of Pat McGee trail to Town of Perrysburg and Chautauqua County border, possible route along active railway	Possible
	b. Connection from northern edge of Pat McGee trail to Village of South Dayton and Chautauqua County border, possible route along active railway	Possible
	c. Connection from southern edge of Pat McGee trail to Town of Randolph and Chautauqua County border, possible route along active railway	Possible
6. Multiuse Trail from Village of Franklinville to Pat McGee Trail	a. New multiuse trail connecting Franklinville, Ellicottville trail system and the Pat McGee Trail, possible route along existing snowmobile trail	Possible
7. Support State Park Trail Development Efforts	a. Support State Parks and Conservation Areas to develop proposed trails including Quaker Area Bikeway in Allegany State Park	Recommended
8. All Terrain Vehicles	a. Provide information about existing ATV trails on County trail maps, and County tourism website	Recommended
	b. Expand key snowmobile trails for summer ATV use	Possible
9. Existing Trail Improvements	a. More ADA accessible, paved trails including widening the Allegheny River Valley Trail and paving the Pat McGee Trail	Possible
	b. Winter maintenance of ADA accessible trails	Possible
	c. Increased general maintenance	Possible

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Project Name	Project Description	Priority Level
10. Trail Access Improvements	a. Map any unidentified trail access points	Priority
	b. Include additional seating, restrooms and drinking fountains on longer and more popular trails	Recommended
	c. Provide separated equestrian parking areas at trails that allow equestrian use	Recommended
11. Signage	a. Create a comprehensive signage system using consistent graphics, colors and materials for all trails within Cattaraugus County trail system	Priority
12. Mapping	a. Update Trail Viewer to reflect current trail data	Priority
	b. Include trail difficulty and ADA accessibility in County trail mapping	Priority
	c. Include trail access points in County trail mapping	Priority
	d. Add trail businesses and points of interest to County trail mapping	Recommended
	e. Coordinate all County websites related to trails to provide links between related trail information	Priority
	f. Include Trail Viewer Map in County download-able GIS map viewer application	Priority
13. Marketing and Events	a. Plan multi-day trail events	Recommended



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Project Name	Project Description	Priority Level
14. Village and Business Development Opportunities	a. Incorporate guidelines from 'Economic Development Strategy' plan into municipal code for all cities and villages in Cattaraugus County	Possible
	b. Join North Country Trail Association Trail Towns Initiative	Recommended
15. Trail and Event Coordination	a. Fund a trail coordinator position for Cattaraugus County	Recommended



SENECA NATION

Cattaraugus County fosters current designated and undesignated trails as well as plans for future trails surrounding and/or connecting to portions of the Seneca Territories. However, once Nation boundaries are crossed land and water use policy, procedures, and laws fall fully under the authority of the Seneca Nation. The Nation will continue to ensure measures are taken to maintain and protect waters of and the lands within the Seneca Nation.

The Seneca Nation Community Planning and Development Department, and Department of Transportation are in the process of developing Nation specific plans for the establishment of multi-territory, multi-use trail systems. Once completed, plans will serve as guides for the future development, operation, and use of any trails within Nation boundaries. Users are subject to any and all Nation laws and land use policies.

For more information regarding the Seneca Nations trails contact the Department of Community Planning and Development or Department of Transportation at 716-945-1790 ext. 3469





2.0 INTRODUCTION



BACKGROUND AND PURPOSE OF STUDY

Cattaraugus County is located in rural southwestern New York State. It is bordered by Pennsylvania to the south, Allegany County to the east, and Chautauqua County to the West. The northern boundary of the County is formed by Cattaraugus Creek. Cattaraugus Creek separates Cattaraugus County from Wyoming County and Erie County, the location of Buffalo, New York's second largest city.

Cattaraugus County is home to two cities, Salamanca and Olean, nine villages, and thirty two towns. In addition, there are a number of unincorporated historic hamlets that contribute to the character of the County. The Allegany, Cattaraugus and Oil Springs Territories within Cattaraugus County are independent territories under the governance of the Seneca Nation. See Figure 2.

Cattaraugus County is characterized by wooded hillsides interspersed with farm fields and attractive settlements. The County has a number of unique ecological attractions. These include Zoar Valley, a protected conservation area, and Allegany State Park, the largest State Park in New York. Both of these areas have been identified by the State of New York for their rare and vibrant ecological communities. See Figures 3 & 4.

The County also possesses an extensive trail system, used by a number of groups including hikers, cyclists, equestrians, and snowmobilers. Many of these trails are maintained by local volunteer organizations. The County trail system incorporates several large scale regional trails, as well as more specialized small scale trail networks. See Figure 4.



The trail system, pristine ecological areas, and beautiful scenery benefit residents by reducing stress and encouraging physical activity. They also attract tourists which benefits local businesses, creates jobs and supports the County economy.

The purpose of the Cattaraugus County Countywide Trail System Plan is to preserve and promote the County’s natural resources, maximize opportunities for outdoor recreation, and capitalize on the outdoor tourism industry.

Project goals include:

- Surveying existing trails
- Determining the feasibility of connecting existing trails within and beyond Cattaraugus County.
- Identifying potential trail corridors
- Recommending trail improvements and potential new trails

COMMUNITY INVOLVEMENT

Planning of any kind cannot be done in a vacuum, and must be informed by local residents. New York State has identified principles to guide community planning processes, which states that planning should be continuous, comprehensive, participatory, and coordinated. Citizen participation is a key component in the process, not just a requirement, it is a critical element of a successful plan. Table 2 chronicles the meetings that were conducted regarding this project.

Table 2: Chronology of Community Involvement

Date	What	Purpose
Nov 17, 2016	Project Advisory Committee Meeting	Project Kick-Off
March 16, 2017	Project Advisory Committee Meeting	Site Analysis
May 18, 2017	Project Advisory Committee Meeting	Preliminary Recommendations
October 5, 2017	Project Advisory Committee Meeting	Recommendations

The planning process for this study included outreach to both the general public and key stakeholders. A project advisory committee, members listed below, was comprised of representatives from Cattaraugus County and local trail organizations. Committee members provided continuity and study oversight.



PROJECT ADVISORY COMMITTEE

Jim Allen	WNY Mountain Bicycling Association
Ben Anderson	Seneca Nation of Indians
Len Brainard	Cattaraugus County Equine Advisory Committee
Luke Brainard	Cattaraugus County Equine Advisory Committee
Josh Bridge	USFS Allegheny National Forest
Julie Chartreau	Town of Carrollton
Amanda Dackowsky	Cattaraugus County Equine Advisory Committee
Bill Dibble	Allegany Trails, Inc.
Patrick Dove	NYS Parks/Allegany State Park
Kori Eaker	Cattaraugus County Equine Advisory Committee
John Eaton	Portville Trails Association
Holly Fischer	River Trail/Portville Planning
Bob Fischer	River Trail/Portville Planning
Barb George	Creekside Roundup
Carl George	Creekside Roundup
Bev Jones	Pfeiffer Nature Center
Gerri Jimerson	Seneca Nation of Indians
Joe Langianese	Allegheny National Forest
Rick LeFeber	Cattaraugus Local Development Corporation
Tom Livak	NYS Parks/Allegany State Park
Anne Lynch	Chautauqua County Trail Riders
Rick Miller	Olean Times Herald
Linda Murphy	Cattaraugus County Equine Advisory Committee
Melinda Nichols	Cattaraugus County Equine Advisory Committee
Phil Nickerson	Chautauqua County Trail Riders



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David Paradowski	NYSDEC
Vicki Schmidt	Pfeiffer Nature Center
Ainsley Smith	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Becky Smith	Cattaraugus County Equine Advisory Committee
Jon Sundquist	WNY Mountain Bicycling Association
Veronica Weber	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Missy Whittington	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Quinn Wright	Finger Lakes Trail Conference

Cattaraugus County Dept. of Economic Development, Planning & Tourism staff:

Crystal Abers, Paul Bishop, Jean Davis, Jeremy Knab, Ginger Malak, Kate O'Stricker, Becky Smith

WEB BASED COMMUNITY INVOLVEMENT

Web based crowdsourcing applications were also used to gather community input for the Cattaraugus Countywide Trail System Plan. These included a general community survey, several online mapping tools, and Mapillary, which allows users to upload images or videos to a public, georeferenced collection. More detailed information about these tools is included in Section 6, Community Input.



RELATIONSHIP TO OTHER PLANS AND STUDIES

The goal of planning is to improve the welfare of people and their communities by creating more convenient, equitable, healthful, efficient, and attractive places for present and future generations (APA, 2011). Planning enables civic leaders, businesses, and citizens to play a meaningful role in creating communities that enrich people's lives. In developing new plans, it is important to refer to plans and studies that have already been completed to evaluate how the new plan relates to existing plans. The trail system improvements proposed are compatible with the general principles and specific projects found in the planning documents listed below.

Elements of a Countywide Vision. Cattaraugus County. Smart Development for Quality Communities. 2001.

A Design Guidebook for Towns and Villages in Cattaraugus County. Cattaraugus County. Smart Development for Quality Communities. 2001.

Summary and Analysis of Similar Initiatives for Park-Community Economic Development. Cattaraugus County. Smart Development for Quality Communities. 2001.

Economic and Market Analysis for Communities in the Perimeter of Allegany State Park. Cattaraugus County. Smart Development for Quality Communities. 2001.

Economic Development Strategy – Linkages Between Allegany State Park & Nearby Communities. Cattaraugus County. Smart Development for Quality Communities. 2002.

Saving Our Villages. Cattaraugus County. Smart Development for Quality Communities. 2004.

A New Vision for Outdoor Recreation Trails in Cattaraugus County, New York. Cattaraugus County. Smart Development for Quality Communities. 2005.

Growing the Equestrian Economy in Cattaraugus County, NY. Cattaraugus County. Smart Development for Quality Communities. 2005.

Agricultural and Farmland Protection Plan. Agricultural Community Development Services, LLC. 2007.

Allegany State Park Final Master Plan. New York State Office of Parks, Recreation and Historic Preservation. 2010.

Allegany State Park Trails Plan (Final Master Plan Appendix B). New York State Office of Parks, Recreation and Historic Preservation. 2010.

Cattaraugus Unit Management Plan. NYSDEC. 2014

Ellicottville Great Valley Trail Master Plan. Ellicottville Great Valley Trail Committee. 2014.

Vision 2025. Cattaraugus County Comprehensive Land Use Plan. Wendel & Cattaraugus County Department of Economic Development, Planning & Tourism. 2015.



3.0 TRAIL BENEFITS



The creation of a Countywide Trail System Plan is part of Cattaraugus County's larger vision to make the County an even more attractive and enjoyable place to live, retain and create new businesses, attract tourists, and capitalize on the stunning natural setting and unique character of the County.

With the development of this Plan, the County is taking a progressive stance by addressing important issues, such as rural population decline, environmental degradation, and health problems related to inactivity. The Countywide Trail System is part of a greater active transportation system and will help the County and the region to harvest the long-term economic, environmental, health and social benefits associated with active transportation.

HEALTH BENEFITS

More than 50% of American adults do not get enough physical activity to provide health benefits (CDC, 2012). With this in mind, opportunities for exercise and healthful outdoor activity are more than expendable extras. Trails and greenways provide people of all ages with attractive, accessible, safe, and inexpensive opportunities to enjoy physical activity.

50% of American adults do not get enough physical exercise to provide health benefits

(Centers for Disease Control and Prevention, 2012)



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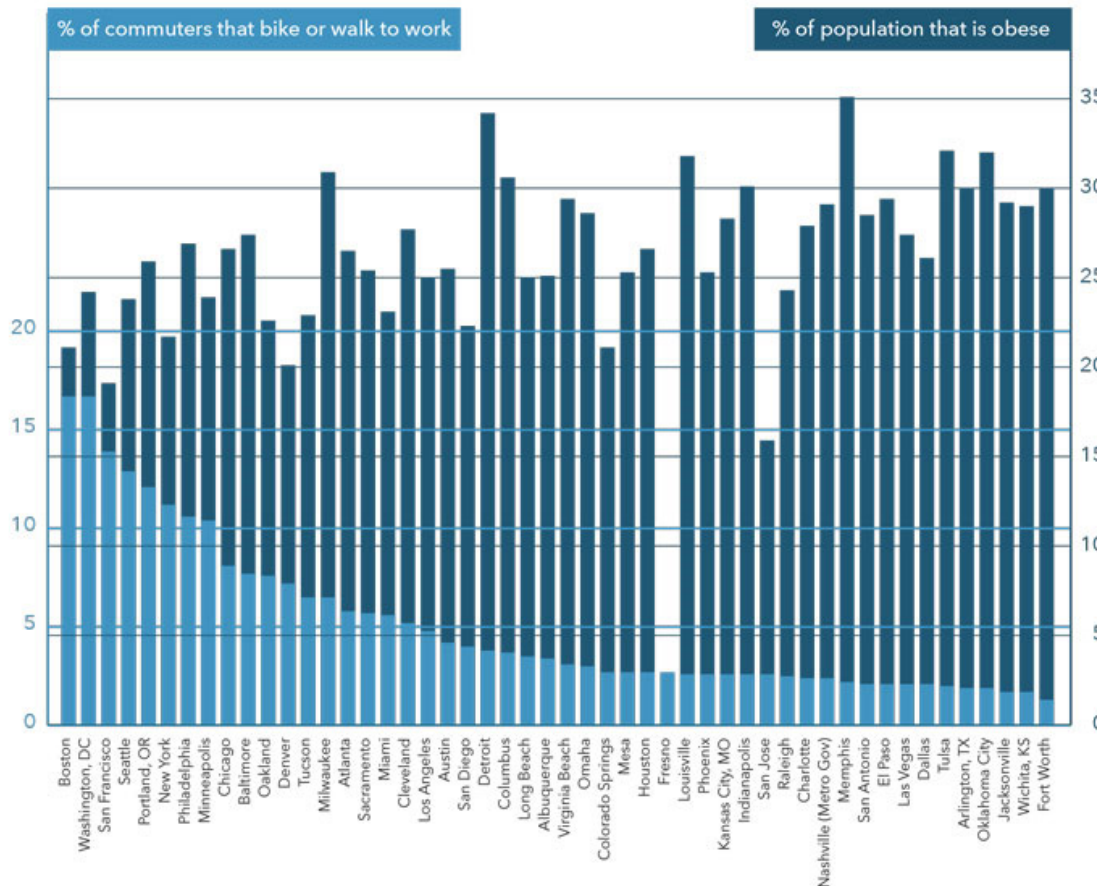


Step It Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities recognizes the importance of physical activity for people of all ages and abilities. It calls on Americans to be more physically active through walking and calls on the nation to better support walking and walkability.

SurgeonGeneral.Gov

Several studies have shown that nearby trails and green spaces increase the amount of physical activity of residents, and increase longevity among elderly community members (Rails-to-Trails Conservancy). Other studies have shown that spending more time walking reduces cognitive decline, increases longevity, lowers risk of heart disease, stroke, type 2 diabetes, depression, and some types of cancer (Center for Disease Control and Prevention, Archives of Internal Medicine). Trails can also decrease stress and prevent injury by providing a safe place for exercise and activity (CDC).

Bicycling and Walking in the United States: 2016 Benchmarking Report, published by the Center for Disease Control and Prevention and the Alliance for Bicycling and Walking, reports that people in areas with a strong culture of cycling and walking are less likely to be obese.





In recognition of these critical facts, government organizations across the country are responding with new bicycling and walking policies to improve health outcomes across America.

In 2016 the Surgeon General published a call to action to promote walkable communities throughout the United States.

36 states, including New York, have set goals to increase bicycling and walking, and 47 of the 50 most populous cities in the US have published goals to increase cycling.

By creating a more connected, accessible, and extensive trail system, Cattaraugus County is taking part in this national initiative. The County is creating more opportunities for residents to make healthy and enjoyable choices that will benefit residents for generations to come.

ENVIRONMENTAL BENEFITS

Trails create linkages between fragmented natural habitats. This increases the land available to many species, and allows populations to travel to access the resources they need to survive (Rails-to-Trails).

*A four mile
bike trip keeps
15 pounds of
pollutants out
of the air we
breathe*

*Worldwatch
Institute*

Trails can also enhance water quality. They can provide buffers between streams and agricultural areas. These buffers can remove 50% or more of nutrients and pesticides and 75% or more of sediment that would contaminate local waterways (USDA Natural Resource Conservation Service).

Trails encourage active transportation. This reduces emissions of greenhouse gases and other pollutants that contribute to global warming, smog, and acid rain. Choosing active transportation is an easy way to reduce our environmental impact – bicycling and walking create zero greenhouse gas emissions. Active transportation can reduce air pollution, minimize traffic congestion, and help to lessen our national dependence on petroleum.

COMMUNITY BENEFITS

Cultivating better walking and bicycling conditions provides mobility for the one-third of people in the United States who do not have cars. This improves access to jobs, education, and health care.

Bicycling and walking can be appealing for families looking to engage in new recreational opportunities while increasing opportunities for social interaction and contributing to a sense of community. Communities across the county have embraced non-motorized transportation as a popular and beneficial option that residents increasingly expect and visitors actively seek when making choices about where to locate their families. Cities that promote bicycling tend to retain youth, attract young families, and increase social capital.



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Active transportation can reduce stress and allow for more community interaction. Riding a bicycle allows a commuter to choose a less busy route and by-pass traffic lights. Walkers and cyclists see more of their community than stoplights, white lines and car bumpers, and benefit from the stress relief that accompanies physical exercise. It is easier and less expensive to park a bike than a car, which further reduces the stress of commuting. In addition, a culture dependent on cars encourages urban sprawl, which destroys communities and keeps people isolated from one another.

ECONOMIC BENEFITS

Trails attract and support businesses. According to a 2006 Outdoor Industry Foundation Study “Active Outdoor Recreation” contributes \$730 billion annually to the United States economy and supports 6.5 million jobs. This generates \$88 billion in state and federal taxes each year. ***This income is concentrated in rural areas and small towns*** (americantrails.org).

“Trails consistently remain the number one community amenity sought by prospective homeowners” National Association of Homebuilders (2008). ***Trails make communities more attractive and safe for pedestrians and cyclists, and encourage safe routes to school for children***. This increases property values and tax revenue. Better pedestrian and bicycling conditions will provide access to recreational and work destinations, schools, public transit, and local shops. This will, in turn, promote additional economic development in the vicinity of these destinations.

The number of people walking and bicycling can be a good indicator of a community’s livability- a factor that has a profound impact on attracting new residents, businesses, workers, and tourists all of which contribute towards stimulating the economy. By encouraging active transportation, local economies keep shoppers centrally located, resulting in increased community reinvestment.

Trail tourism tends to attract affluent, older adults with disposable income. “In a survey of bicyclists on North Carolina’s Outer Banks, 81% reported having a college degree and 78% gave household incomes of \$75,000 or more. In the Adirondacks, the mean annual income of bicyclist survey respondents was between \$60,000 and \$69,000. In a 2008 survey of users on the Great Allegheny Passage, a 150-mile rail trail in Pennsylvania, 83% of respondents were 35 or older”(americantrails.org). These tourists tend to be big spenders. “Many bicyclists who tour independently carry a minimum of equipment and pay for lodging in facilities ranging from hostels to hotels and meals in restaurants as they go. Sometimes known as “credit card cyclists” because of their willingness to buy what they need along the way, these cyclists have not been drawn to bicycle tourism because it is inexpensive” (americantrails.org).



THE BENEFITS OF REGIONAL TRAILS

New York State is investing in expanding the NYS regional trail system. The Empire State Trail is an ongoing New York State trail project slated to be completed by 2020. This trail will connect Manhattan to Albany, and from Albany stretch west to Buffalo and north to the Canadian border. The Empire State Trail project will connect and incorporate many trails in New York State, including the Erie Canalway Trail and the Hudson River Valley Greenway.

Large scale trails like the Erie Canalway Trail and the Hudson River Valley Greenway have a significant positive impact on the state economy. According to Parks & Trails NY, ‘the Erie Canalway Trail is estimated to have an annual traffic volume of more than 1.58 million persons. Erie Canalway Trail visitors spending generates approximately \$253 million in sales, 3,440 jobs, \$78 million in labor income and \$28.5 million in taxes in the local economy each year’ (The Economic Impact of the Erie Canalway Trail).

Even though the Hudson River Valley Greenway is less than 50% complete, it is already generating an estimated \$21 million dollars per year for the local economy (New York State Press Release).

In addition to the economic benefits from tourism, every \$1 spent on the Empire State Trail will yield \$3 in medical benefits for surrounding communities (New York State Press Release).

The New York State Empire State Trail project is based on conclusive evidence that large scale regional trails are a good investment.

Large scale trails are more likely than smaller trails to attract visitors from greater distances. These tourists spend significantly more per visit than local visitors, and bring income into trail communities. According to the Economic Impact of the Erie Canalway Trail study, trail users who do not live in an adjacent county spent more than 20 times more per visit than visitors who lived in an adjacent county. Similarly, trail users who said they were on vacation spent over \$900, compared with the average trail user who spent \$26.37 per visit. Over two thirds of survey users on the Erie Canalway Trail expressed an interest in long distance (50+ mile) bicycle trips. Large scale trails are also opportunities for races and other trail related events that attract tourists from long distances (The Economic Impact of the Erie Canalway Trail).



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TRAIL SUCCESS STORIES

The “Trail Town” program promotes businesses along the Great Allegheny Passage. Direct annual spending by trail users exceeds \$40 million. **Trail related businesses pay \$7.5 million in wages each year, and since 2007 65 businesses have been created or expanded, creating 270 new jobs in small towns along the trail.**

- **Along the Erie Canalway Trail** trail users spend **\$253 million**, generating \$28.5 million in taxes and creating 3,440 jobs.
- In Washington State, trail users spent more than \$3.4 billion on equipment, which created **\$14-28 million in tax revenue** for the state. Along the Baltimore and Annapolis Trail in Maryland **6 trail related stores have opened** and 2 others have relocated next to the trail to attract new customers.
- Missouri State Rail “After one season, **61 businesses along the trail found the trail positively impacted their businesses**. Eleven reported the trail strongly influenced their decision on where to locate and 17 increased their business size since the trail opened”.
- In Vermont, on average, tourists stay one day longer at Stowe than at other resort areas. **The longer stays and the associated revenue are attributed to a 5.5 mile multiuse trail in the community.**
- Dunedin Florida downtown previously had a 35% occupancy rate. After a local abandoned railroad was converted into a trail the **occupancy increased to 100%** (conservationtools.org).



“Three new gift shops have recently opened, another bike shop, a jewelry store, an antique and used furniture store, a thrift shop, a Wendy’s Restaurant and a pizza and sandwich shop have also cropped up. All this is happening, and only with the PROSPECT of the trail opening in July. There is an air of excitement and anticipation now within this community. Something Connellsville has not felt for many years.”

Chris Wagner, Executive Director of the Greater Connellsville Chamber of Commerce, Pennsylvania



4.0 INVENTORY AND ANALYSIS



MUNICIPALITIES, LAND USE AND CONSERVATION NETWORK

MUNICIPALITIES

Cattaraugus County is home to two cities, the City of Salamanca in the center of the County, and Olean, near the south east border.

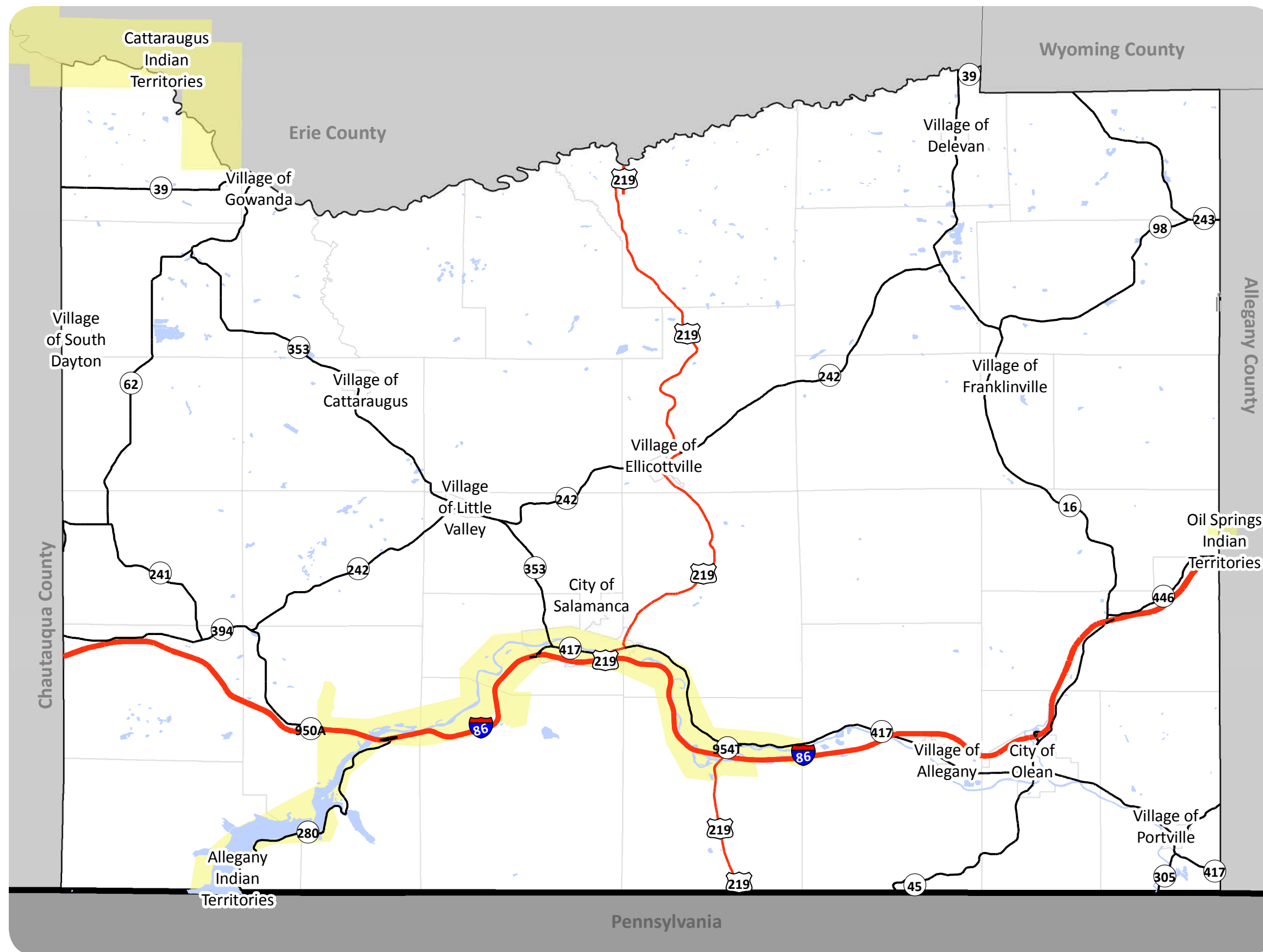
There are nine villages in Cattaraugus County. The Villages of Gowanda, South Dayton, and Cattaraugus are clustered in the northwest corner of the County. Delevan and Franklinville are in the northeast. The Villages of Little Valley and Ellicottville are in the center of the County, north of the City of Salamanca. The Villages of Allegany and Portville are in the southeastern corner of the County, near the City of Olean. See Figures 2 and 3 for maps of County municipalities.

There are thirty two towns in Cattaraugus County. In addition, there are a number of unincorporated historic hamlets that contribute to the character of the County.

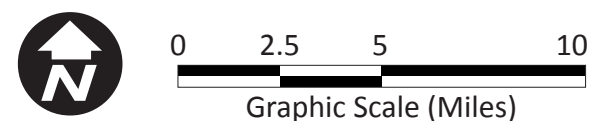
The Allegany, Cattaraugus and Oil Springs Indian Territories within Cattaraugus County are independent territories under the governance of the Seneca Nation of Indians. The City of Salamanca is within the Allegany Indian Territories. See Figure 2.

LAND USE

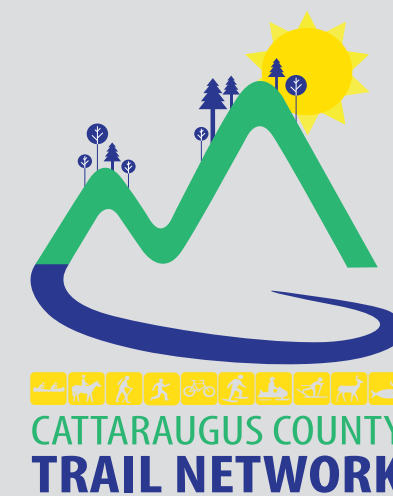
The majority of Cattaraugus County is forested. 62 percent of Cattaraugus County is deciduous forest and an additional 7 percent is evergreen or mixed evergreen and deciduous forest.



Map Sources: US Census Bureau, NYS GIS Clearing House, NYSDOT, Cattaraugus County GIS Services

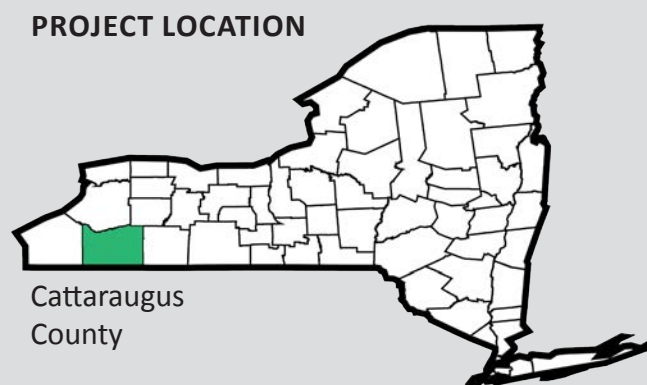


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**FIGURE 2
ROAD NETWORK & MUNICIPALITIES**

- Interstate
- Highway
- Major Road
- Waterbodies
- Seneca Nation of Indians





Pasture and cultivated cropland each comprise just under 10 percent of County land. These uses are concentrated in the northern and western portion of the county, and around the Villages.

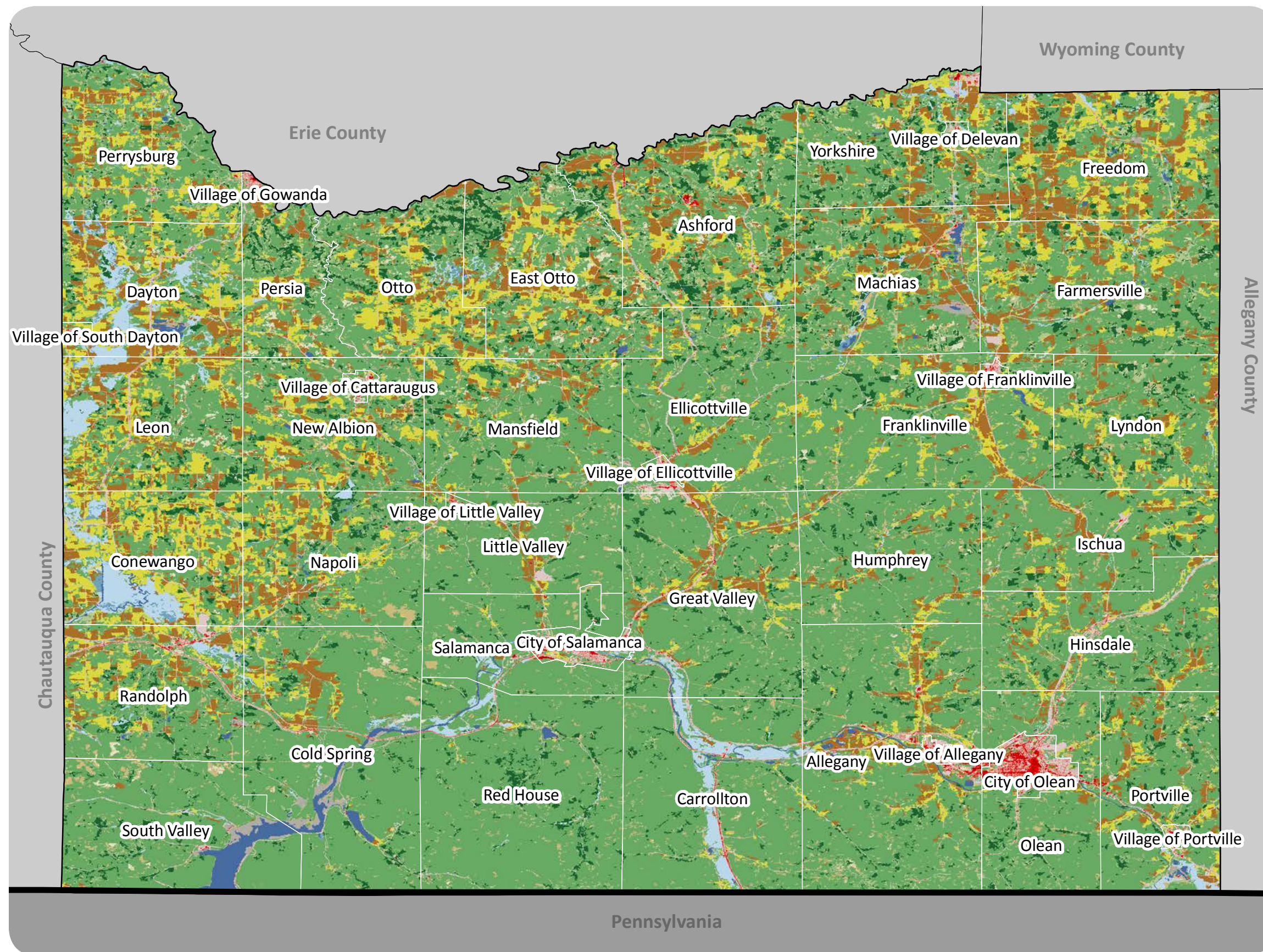
4 percent of the County is developed lands. See Figure 3 and Table 3 for more information.

Table 3: Land Use

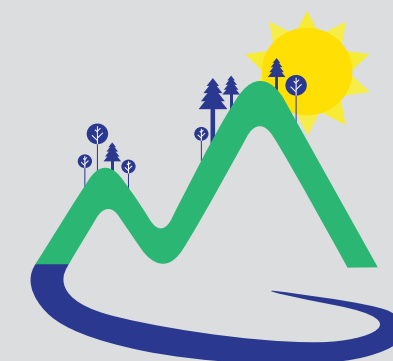
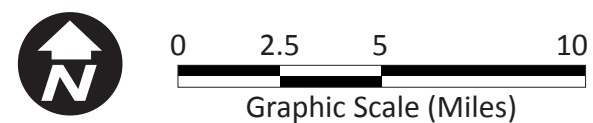
Land Use Category	Square Miles	Percent
Deciduous Forest	819	61.94%
Cultivated Crops	129	9.73%
Pasture/Hay	122	9.22%
Evergreen Forest	69	5.18%
Shrub	41	3.07%
Developed, Open Space	39	2.93%
Mixed Forest	33	2.47%
Woody Wetlands	26	1.99%
Grassland	12	0.90%
Open Water	11	0.80%
Developed, Low Intensity	10	0.77%
Emergent Herbaceous Wetlands	4	0.34%
Barren Land	4	0.32%
Developed, Medium Intensity	4	0.27%
Developed, High Intensity	1	0.06%

CONSERVATION LAND

Cattaraugus County boasts 172 Square Miles of State and County owned conservation land. Many of these properties include dense networks of trails that are open to the public. These are a pivotal resource within the Cattaraugus County Trail System. See Figure 4. State owned conservation land is listed in Table 4 below.



Map Sources: USGS, NYS GIS Clearing House, Cattaraugus County GIS Services



**CATTARAUGUS COUNTY
TRAIL NETWORK**

FIGURE 3

MUNICIPALITIES & LAND USE MAP

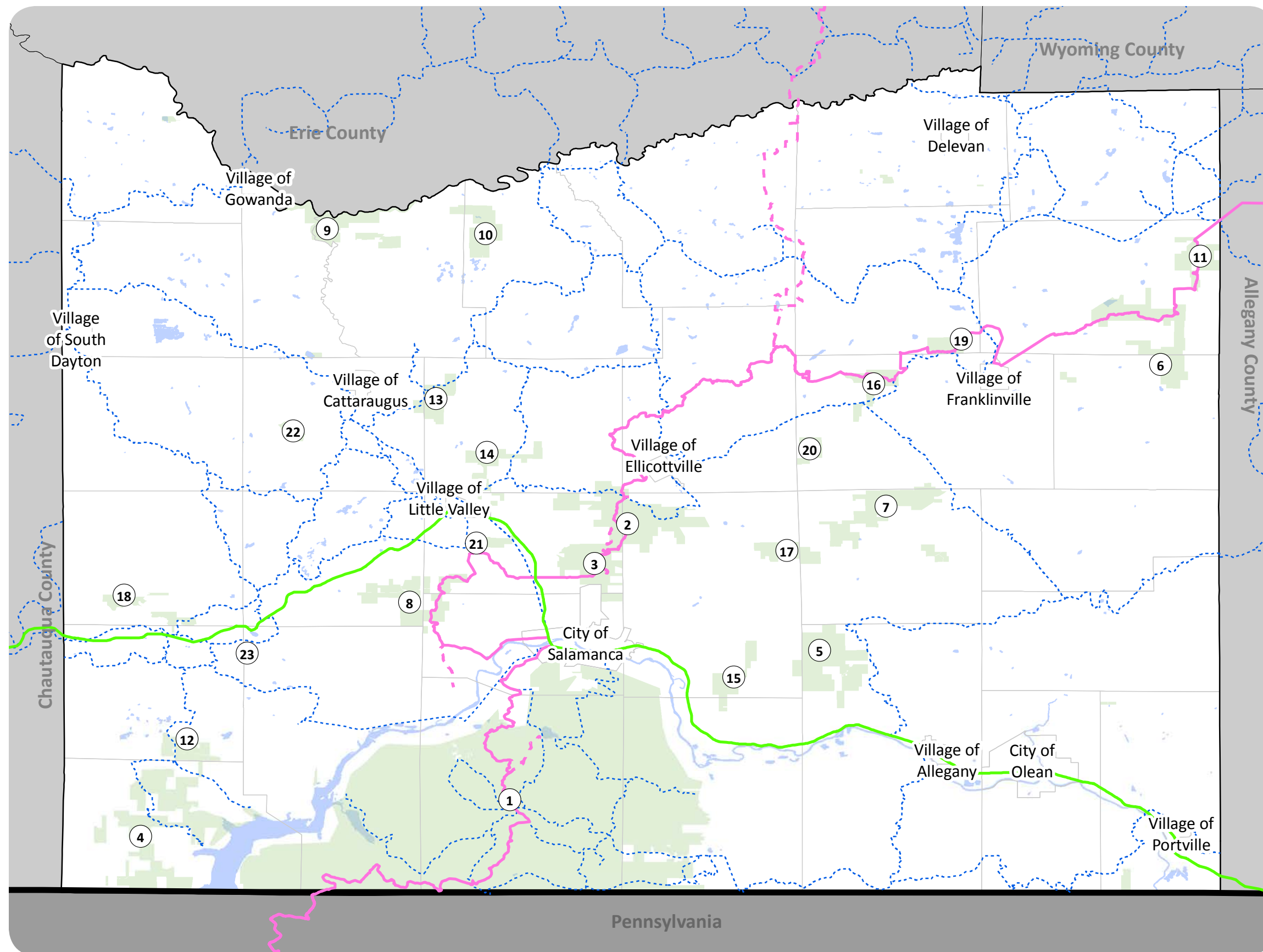
- Open Water
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land (Rock, Sand, Clay)
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub
- Grassland
- Pasture/Hay
- Cultivated Crops
- Woody Wetlands
- Emergent Herbaceous Wetlands

The National Land Cover Database (NLCD) serves as the definitive Landsat-based, 30-meter resolution, land cover database for the Nation. NLCD provides spatial reference and descriptive data for characteristics of the land surface such as thematic class (for example, urban, agriculture, and forest), percent impervious surface, and percent tree canopy cover.

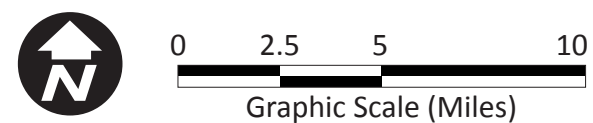


Table 4: State Owned Conservation Areas

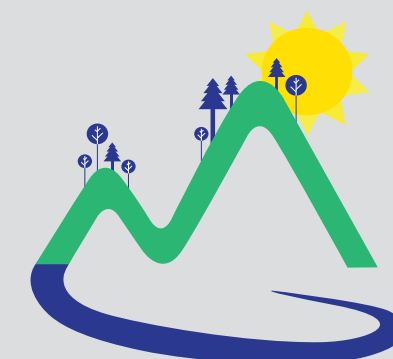
ID	Name	Square Miles	Percent
1	Allegany State Park	99.8	60.41%
2	McCarty Hill State Forest	9.8	5.93%
3	Rock City State Forest	9.8	5.93%
4	South Valley State Forest	8.3	5.02%
5	Nine Mile Creek State Forest	5.0	3.03%
6	Bush Hill State Forest & Harwood Lake MUA	4.9	2.97%
7	Golden Hill State Forest	3.8	2.30%
8	Bucktooth State Forest	3.5	2.12%
9	Zoar Valley MUA	2.9	1.76%
10	East Otto State Forest	2.1	1.27%
11	Farmersville State Forest	1.8	1.09%
12	Pine Hill State Forest	1.7	1.03%
13	Cattaraugus State Forest	1.7	1.03%
14	Dobbins Memorial State Forest	1.6	0.97%
15	Windfall Creek State Forest	1.6	0.97%
16	Boyce Hill State Forest	1.5	0.91%
17	Raecher Hill State Forest	1.3	0.79%
18	Conewango Swamp WMA	1.2	0.73%
19	Bear Creek State Forest	0.9	0.54%
20	Bryant Hill State Forest	0.8	0.48%
21	Elkdale State Forest	0.7	0.42%
22	Conewango Creek Access	0.4	0.24%
23	Randolph Fish Hatchery	0.1	0.06%



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services, North County Trail Association



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**CATTARAUGUS COUNTY
TRAIL NETWORK**

FIGURE 4

REGIONAL TRAILS & CONSERVATION AREAS

- Finger Lakes / North Country Trail
- - - Conservation Trail
- NY Bicycle Route 17
- - - Snowmobile Trails
- Park Boundaries
- Waterbodies
- 1 Conservation Areas

See **Conservation Areas Table** for more information.



EXISTING TRAIL SYSTEM

The following is a list of existing trails in Cattaraugus County.

See Figure 4 for Regional Trails and Conservation Areas in Cattaraugus County. See Figure 5 for Regional Trails statewide.

Most trails in Cattaraugus County allow multiple user groups. Figures 6-10 show the trail system by allowed user groups. Trails that allow more than one user group are shown on multiple figures.

Some of the existing trails are in ecologically sensitive areas. Please refer to trail websites for rules and regulations for protecting each trail.

REGIONAL TRAIL SYSTEM

Cattaraugus County is the meeting point for two major trail systems, the Finger Lakes Trail and the North Country Trail. Within Cattaraugus County these two trails overlap, connecting Cattaraugus County to the regional trail system in New York and the Great Lakes. These trails are critical components of the regional and national trail system proposed within the New York State Empire State Trail Plan.

Finger Lakes Trail - “The Finger Lakes Trail system, over 1,000 miles in length, runs from the Pennsylvania-New York border in Allegany State Park to the Long Path in the Catskill Forest Preserve, with branch trails to Niagara Falls, the Genesee River valley, the Great Eastern Trail south of Corning, the central Finger Lakes, and the Syracuse region. From the PA border to the northeast end of the Onondaga Branch, the Finger Lakes Trail is also the North Country National Scenic Trail” (Finger Lakes Trail Association).

Spurs of the trail pass near Buffalo, Rochester, Syracuse and Binghamton, and the trail passes through Adirondack State Park.

The Finger Lakes Trail does not allow equestrians, cyclists or motorized users.

<http://www.fingerlakestrail.org/>

New York Empire State Trail

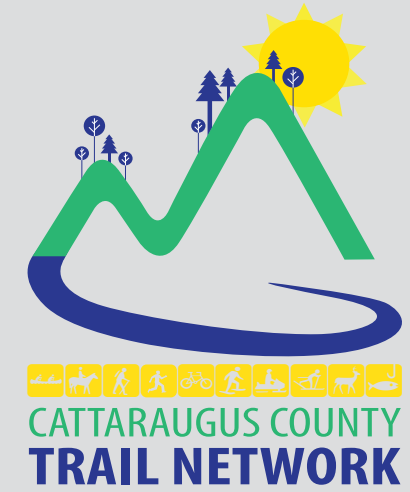
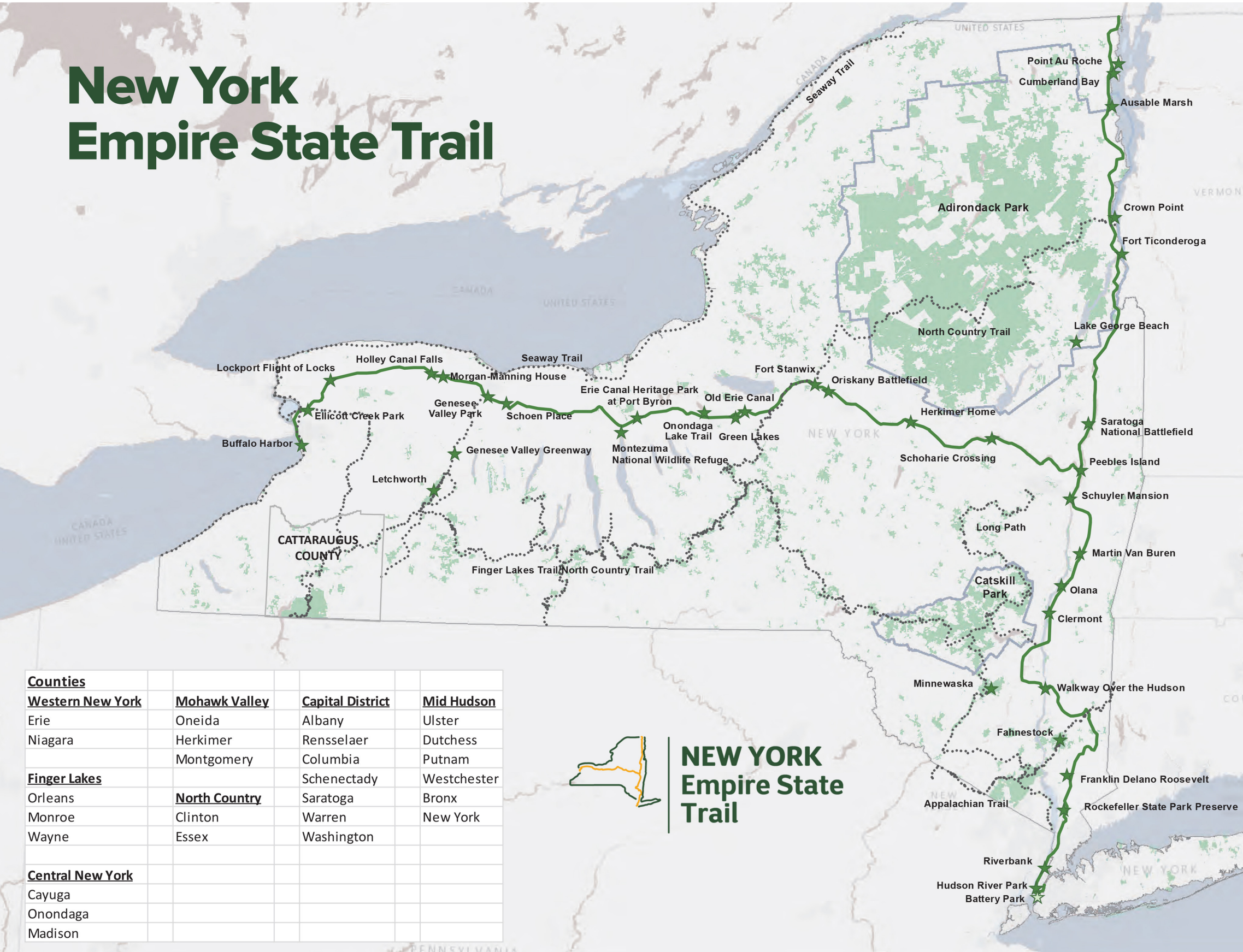


FIGURE 5
NEW YORK STATE TRAILS

- ★ Featured Federal / State Parks / Historic Sites
- ... Regional and National Trails
- Empire State Trail
- State Lands





Conservation Trail- The Conservation Trail is a 117 mile trail. It is a spur of the Finger Lakes Trail that connects Allegany State Park to Niagara Falls near the Canadian border. This trail does not allow equestrians, cyclists or motorized users.

<http://www.foothillstrailclub.org/trail.html>

North Country Trail - The North Country Trail is a 4,600 mile trail that stretches from New York to North Dakota. It is America's longest National Scenic Trail, and passes through 12 National Forests (North Country Trail Association).

<https://northcountrytrail.org/>

NYS Bike Route 17 - This on-road bicycle route runs from Westfield in Chautauqua County, along the shore of Lake Erie, to Wappingers Falls NY, in Dutchess County. In Dutchess County it connects to NYS Bike Route 9, which runs from New York City to the Canadian border in Rouses Point.

The Finger Lakes Trail/North Country Trail and NYS Bike Route 17 intersect in the Town of Little Valley, between the Village of Little Valley and the City of Salamanca.

<https://www.dot.ny.gov/bicycle>

MULTIUSE TRAILS

Allegany State Park Trails. Allegany State Park possesses an extensive system of multiuse trails of varying materials and difficulty levels including ADA accessible trails.

<https://parks.ny.gov/parks/73/details.aspx>

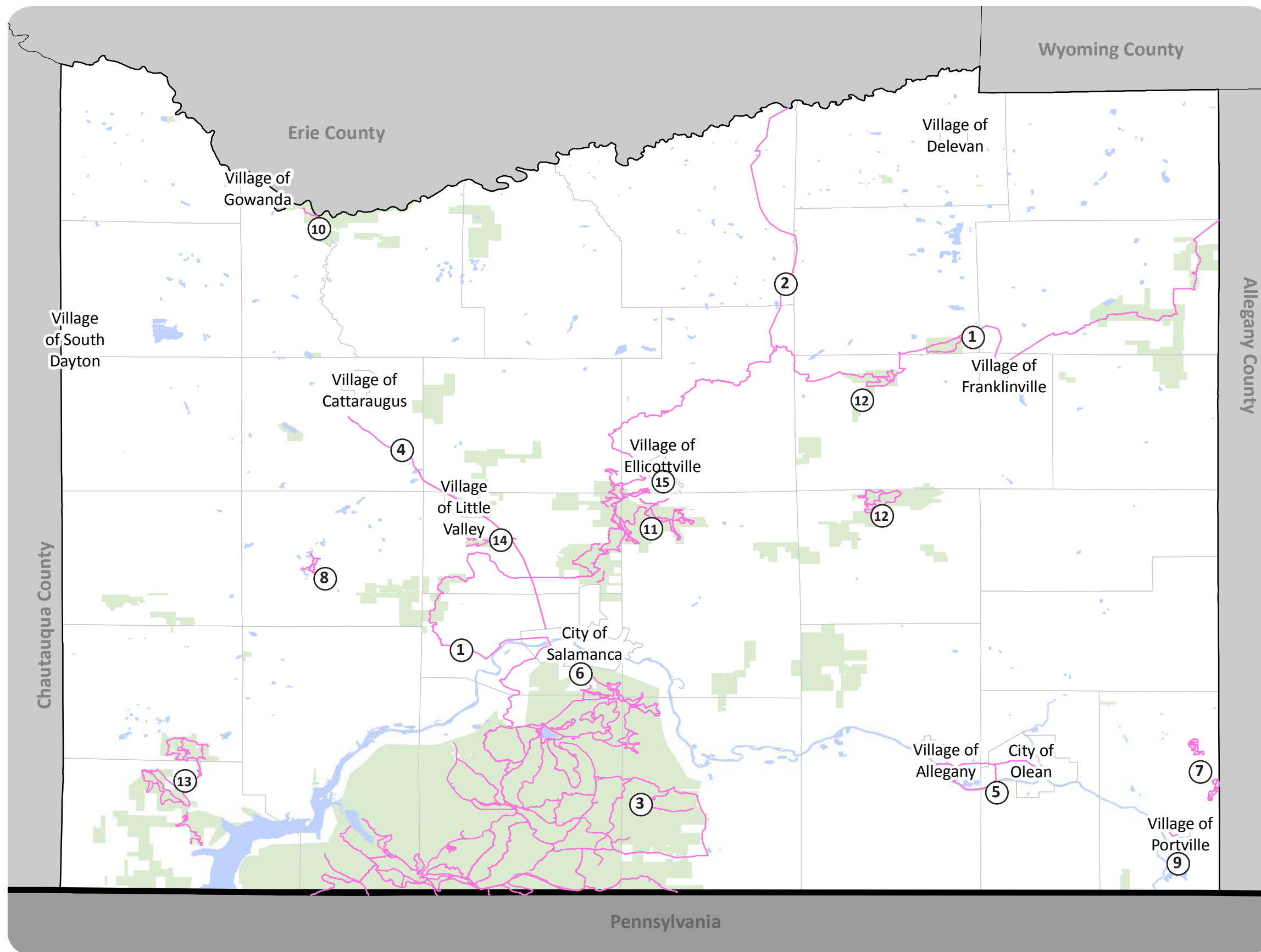
The Pat McGee Trail is a multi-use stone dust trail that runs from the City of Salamanca, just north of Allegany State Park, to the Village of Cattaraugus. The trail is along a former rail line, and there are plans to expand the trail up to Zoar Valley and the Village of Gowanda if an additional segment of the rail line is abandoned. See Figure 1 for trail opportunities along former rail lines.

<http://enchantedmountains.com/trails/pat-mcgee-trail>

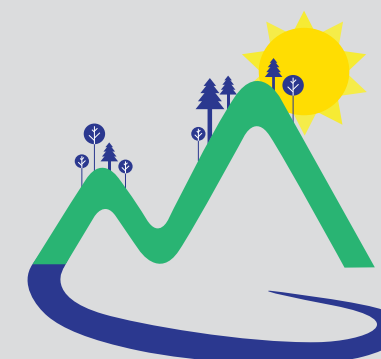
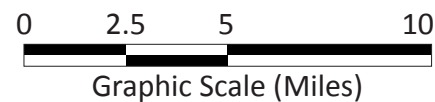
Allegheny River Valley Trail is a 10 foot wide, ADA accessible, asphalt trail in the Town of Allegany, Town of Olean, and City of Olean.

<http://www.allegany.org/index.php?alleganytowntrail>

Pennsy Trail in the City of Salamanca is a two mile long asphalt trail. The trail is along a former rail line. The trail is currently being restored and repaved in a joint effort between the City of Salamanca and the Seneca Nation of Indians. The trail will be ADA accessible after the improvements are complete.



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



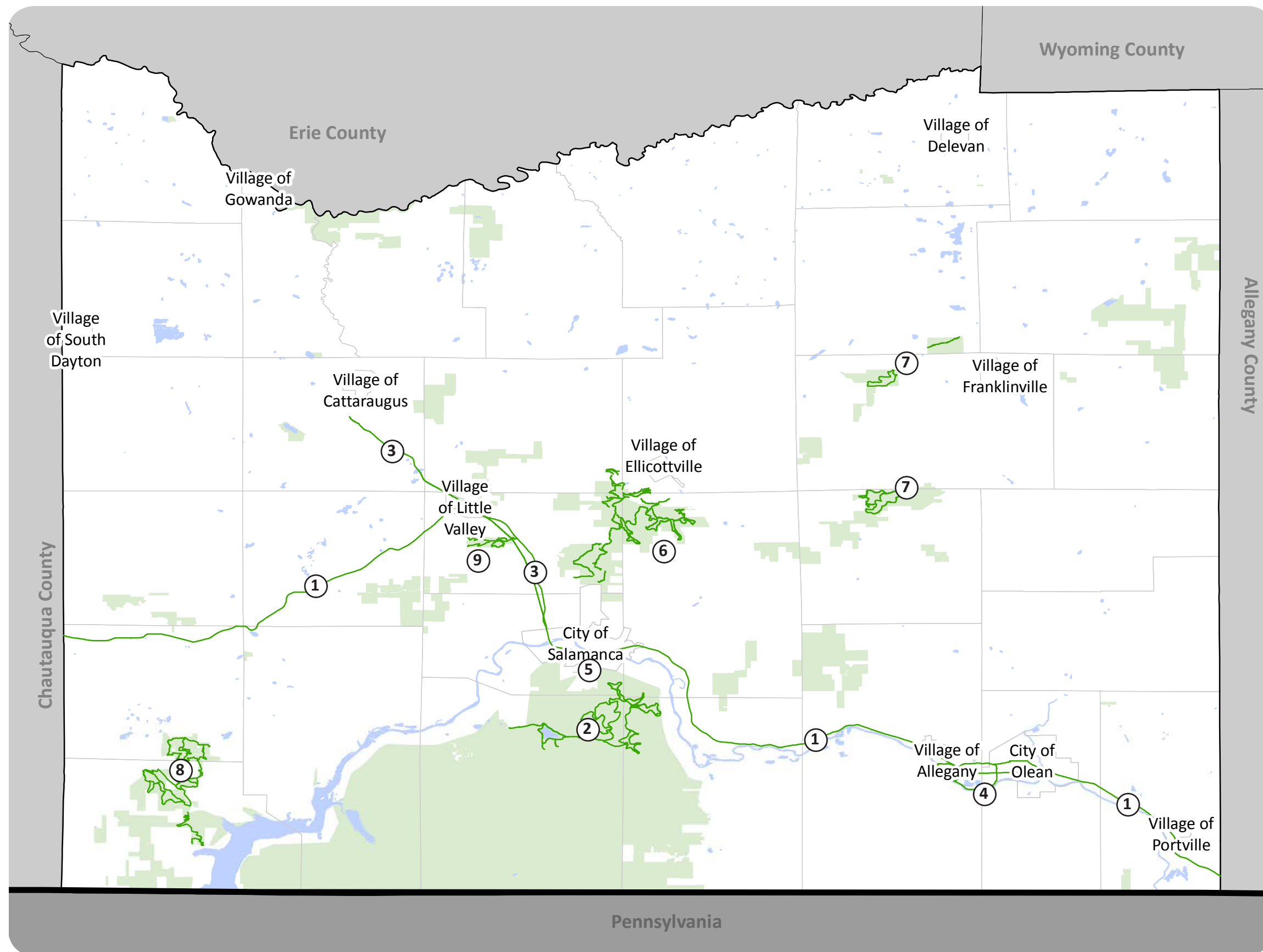
**CATTARAUGUS COUNTY
TRAIL NETWORK**

**FIGURE 6
HIKING TRAILS**

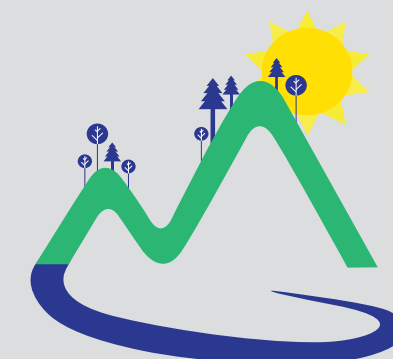
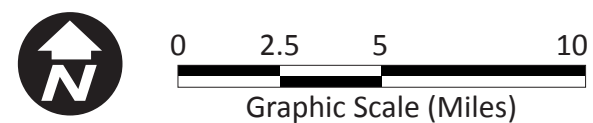
Hiking Trails

- ① Finger Lakes / North Country Trail
- ② Conservation Trail
- ③ Allegany State Park
- ④ Pat McGee Trail
- ⑤ Allegheny River Valley Trail
- ⑥ Pennsy Trail
- ⑦ Pfeiffer Nature Center
- ⑧ Zapfael Nature Center
- ⑨ Portville Trail
- ⑩ Valentine's Flats Trail
- ⑪ Ellicottville Trails
- ⑫ McCarty Hill & Rock City
- ⑬ Pine Hill & South Valley
- ⑭ Elkdale State Forest
- ⑮ Nannen Arboretum

- Park Boundaries
- Waterbodies



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



**CATTARAUGUS COUNTY
TRAIL NETWORK**

FIGURE 7

BICYCLE TRAILS

- ① NYS Bike Route 17
- ② Allegany State Park Trails
- ③ Pat McGee Trail
- ④ Allegheny River Valley Trail
- ⑤ Pennsy Trail
- ⑥ Ellicottville Trails
- ⑦ McCarty Hill & Rock City
- ⑧ Pine Hill & South Valley
- ⑨ Elkdale State Forest

- Park Boundaries
- Waterbodies



Nature Center Trails. Two nature centers in Cattaraugus County include trail systems. The **Pfeiffer Nature Center** in the Town of Portville and the **Zaepfel Nature Center** in the Town of Napoli. One of the trails at the Pfeiffer Nature Center is ADA accessible. The Nannen Arboretum in Ellicottville and Griffis Sculpture Park in East Otto also incorporate trails.

<http://pfeiffernaturecenter.org/nature-blog/visitor-information-directions/>

<https://aboutus.com/Zaepfel.org>

<http://www.nannenarboretum.org/>

<http://griffispark.org/griffis-sculpture-park/>

Western New York Mountain Biking Association Trails

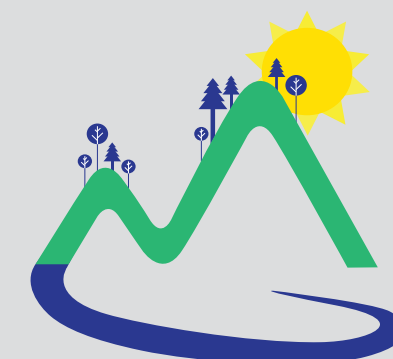
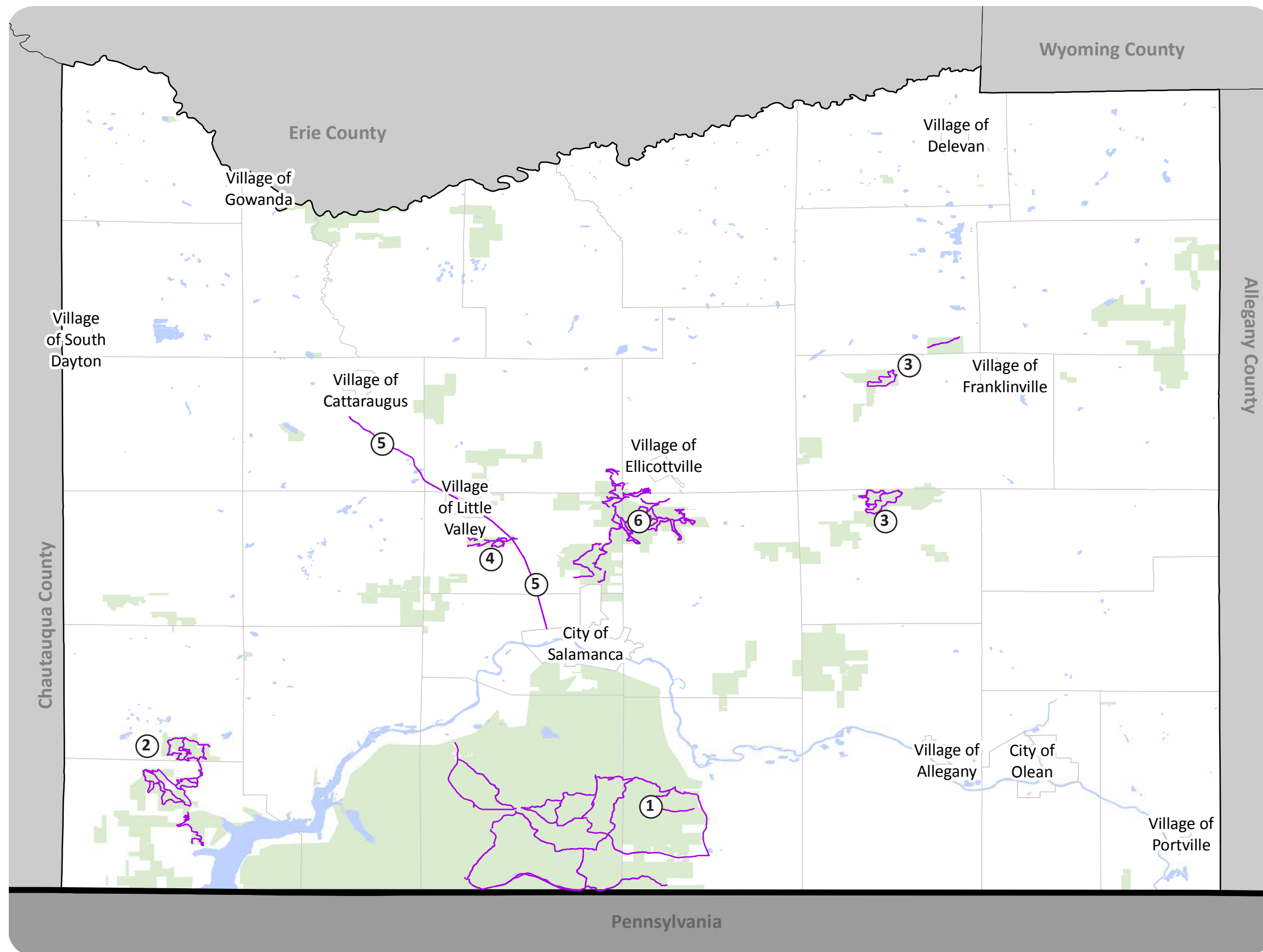
The Western New York Mountain Biking Association (WNYMBA) maintains several trails within Cattaraugus County. These trails are all multiuse trails and all non-motorized trail users are welcome.

- **Ellicottville Trails**- in the center of the county, between the villages of Little Valley and Ellicottville and the City of Salamanca. <http://wnymba.org/>
- **McCarty Hill and Rock City State Forest** in the Town of Humphrey, just east of the Ellicottville trails. <http://www.dec.ny.gov/lands/77184.html>

Equestrian Focus Multiuse Trails

There are many trails in Cattaraugus County that were designed specifically for equestrian use, however, many of these trails allow other users.

- **Allegany State Park** provides 55 miles of equestrian trails.
- **Pine Hill State Forest and South Valley State Forest** are adjacent conservation areas in the Towns of Randolph and South Valley, in the south west corner of the County. Together these have 24 miles of equestrian trails.
<http://www.dec.ny.gov/lands/68174.html>
<http://www.dec.ny.gov/lands/68293.html>
- **Bear Creek State Forest** in the Town of Machias and **Boyce Hill State Forest** in the Town of Franklinville have equestrian trails.
<http://www.dec.ny.gov/lands/63657.html>
<http://www.dec.ny.gov/lands/67601.html>



**CATTARAUGUS COUNTY
TRAIL NETWORK**

FIGURE 8

EQUESTRIAN TRAILS

- ① Allegany State Park Trails
- ② Pine Hill & South Valley
- ③ Bear Creek & Boyce Hill
- ④ Elkdale State Forest
- ⑤ Pat McGee Trail
- ⑥ Ellicottville Trails

Park Boundaries

Waterbodies



- **Elkdale State Forest** in the Town of Little Valley also has equestrian trails.

<http://www.dec.ny.gov/lands/75169.html>

CROSS COUNTRY SKIING TRAILS

The Art Roscoe Cross Country Ski and Mountain Biking Area in Allegany State Park provides 18 miles of groomed trails ranging from beginner to advanced difficulty.

There are additional cross country skiing trails at Holiday Valley Ski Resort and at The Woods at Bear Creek, an upscale camping resort.

The trails at the Pfeiffer Nature Center, while un-groomed, have also been identified as potential cross country skiing trails.

<http://www.holidayvalley.com/>

<http://thewoodsatbearcreek.com/>

<http://pfeiffernaturecenter.org/nature-blog/>

SNOWSHOEING

The Bear Paw Snowshoe Trail is a 2.3 mile trail in Allegany State Park. There are groomed snowshoe trails at Holiday Valley Ski Resort, and the Pfeiffer Nature Center allows snowshoeing and offers groomed winter trails.

ROLLER SKATING AND ROLLER BLADING

Allegany State Park offers 5.7 miles of paved multi-use trails. The Allegany River Valley Trail is a 5.6 mile paved, ADA accessible trail that passes through the Village of Allegany and the City of Olean.

SNOWMOBILE TRAILS

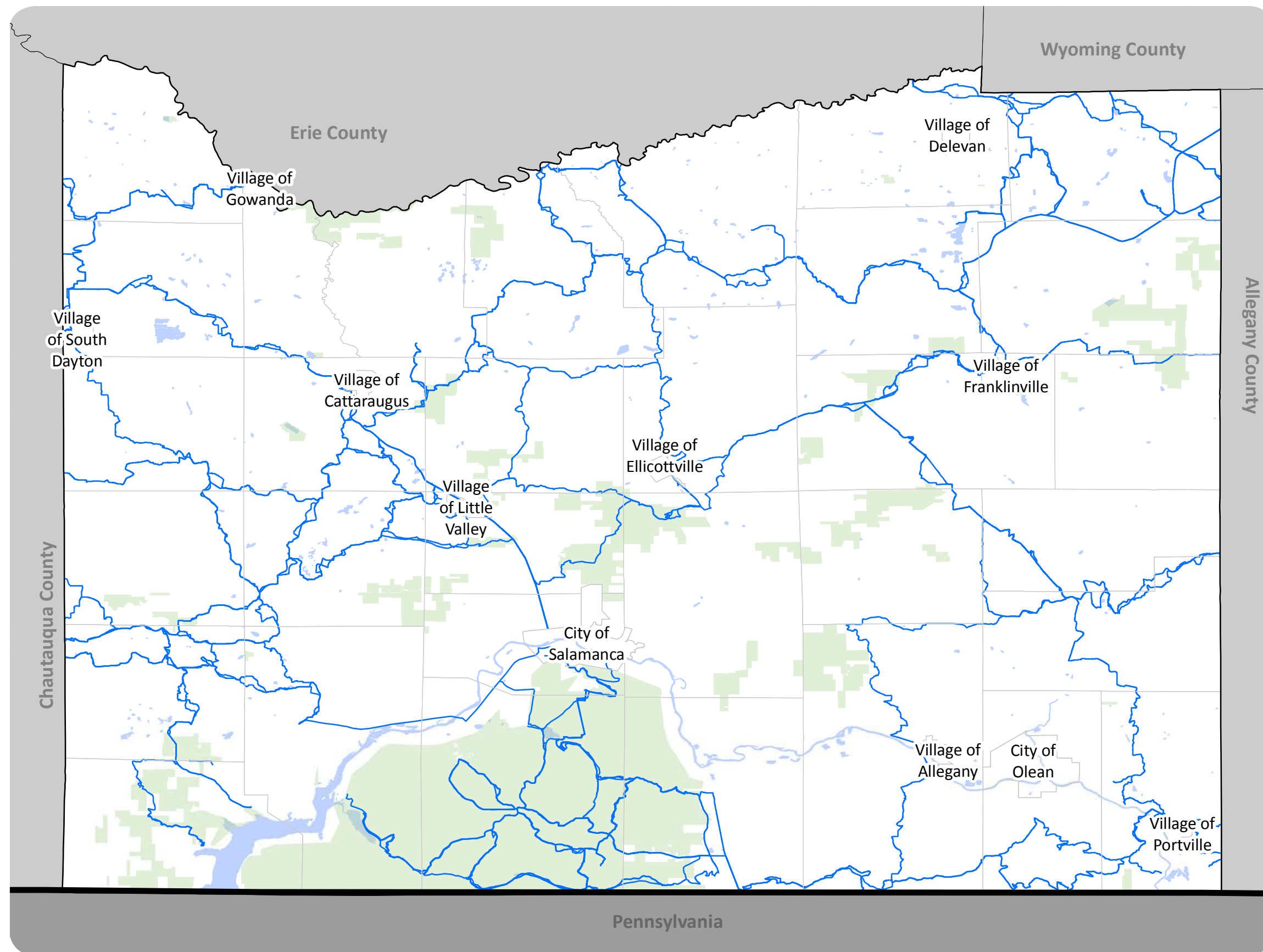
There are 350 miles of state funded snowmobile trails in Cattaraugus County. These trails connect to trails in the adjacent counties, and are part of a 10,000 mile NYS snowmobile system. Maintenance of the trails is supported by the NYS Snowmobile Trail Development and Maintenance Fund and maintained by volunteer organizations.

Snowmobile Trails are shown on Figure 4, Cattaraugus County Trail System, and Figure 9, Snowmobile Trails.

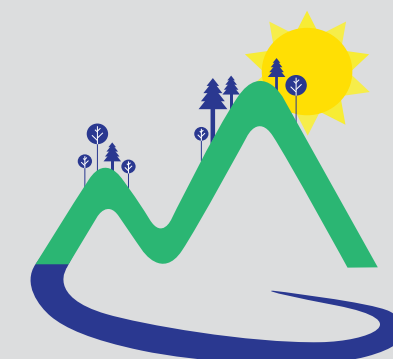
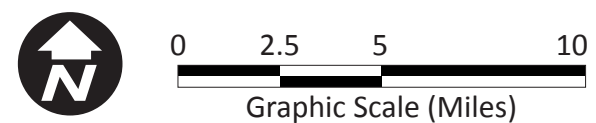
ALL TERRAIN VEHICLE TRAILS

Allegheny National Forest in PA has over 100 miles of ATV accessible trails.

<http://visitanf.com/atv-trails/>



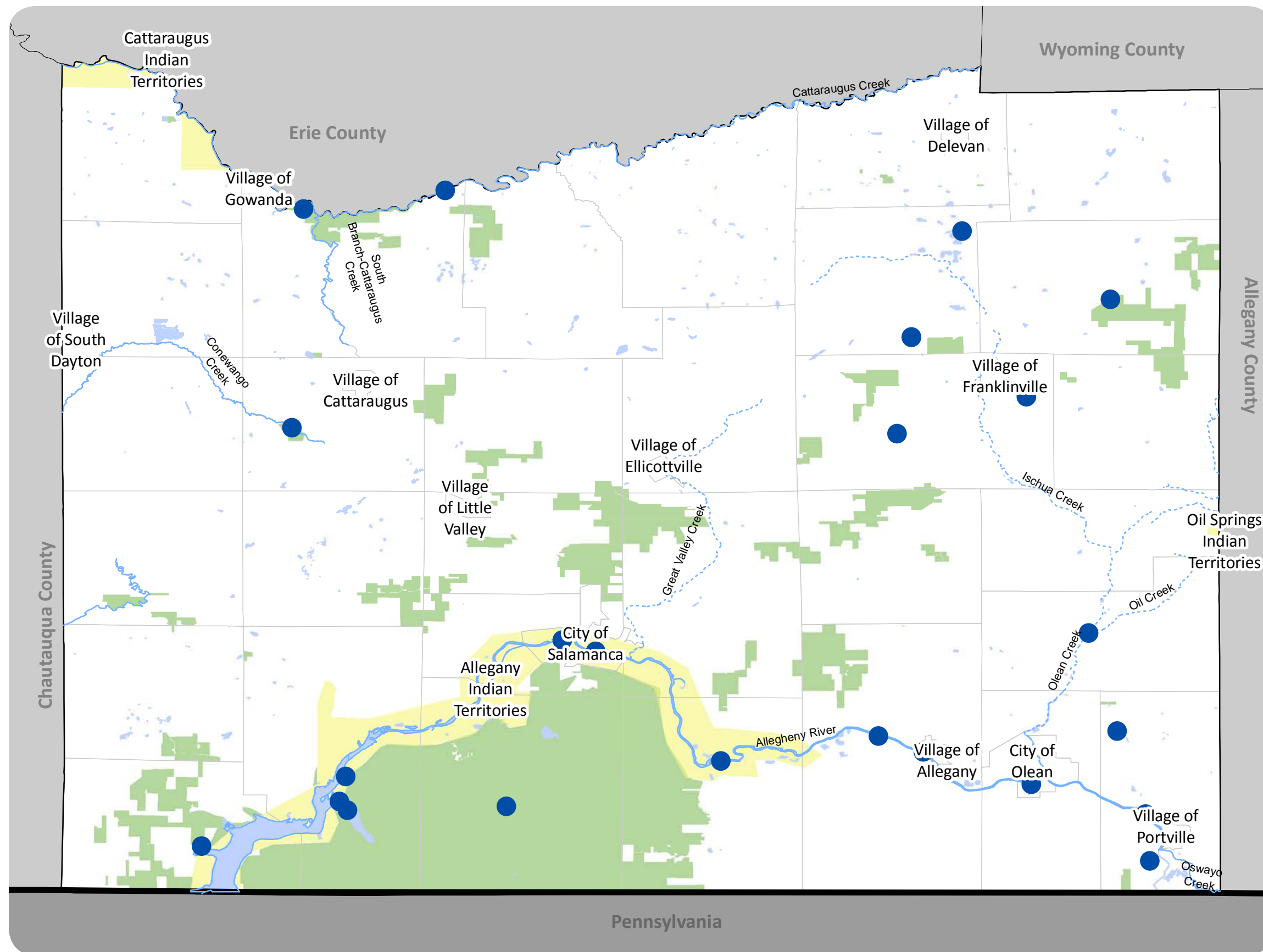
Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



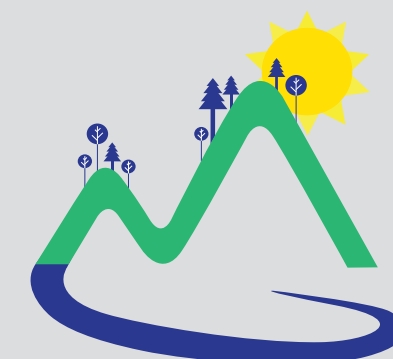
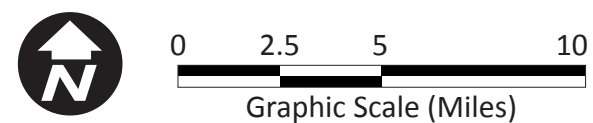
**CATTARAUGUS COUNTY
TRAIL NETWORK**

**FIGURE 9
SNOWMOBILE TRAILS**

- Snowmobile Trails
- Park Boundaries
- Waterbodies



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



CATTARAUGUS COUNTY TRAIL NETWORK

FIGURE 10

BLUE-WAY TRAILS

- Boat Launches
- 3 Season Paddling
- - - High water Paddling



Bear Run ATV Park in the Village of Franklinville offers ten miles of ATV trails across 750 acres.

<http://enchantedmountains.com/video/atv-trails-woods-bear-creek-6041>

There are also ATV trails at Tall Pines ATV Park in neighboring Allegany County.

<http://www.tallpinesatvpark.com/>

BLUE-WAY TRAILS

There are over 230 miles of accessible waterways for canoeing and kayaking within the County. Rivers and creeks that are used as blue-way trails in Cattaraugus County include the **Allegheny River, Cattaraugus Creek, Cattaraugus Creek South Branch, Conewango Creek, Great Valley Creek, Oil Creek, Olean Creek, and Oswayo Creek**. See Figure 10 for blue-way locations and launch sites.

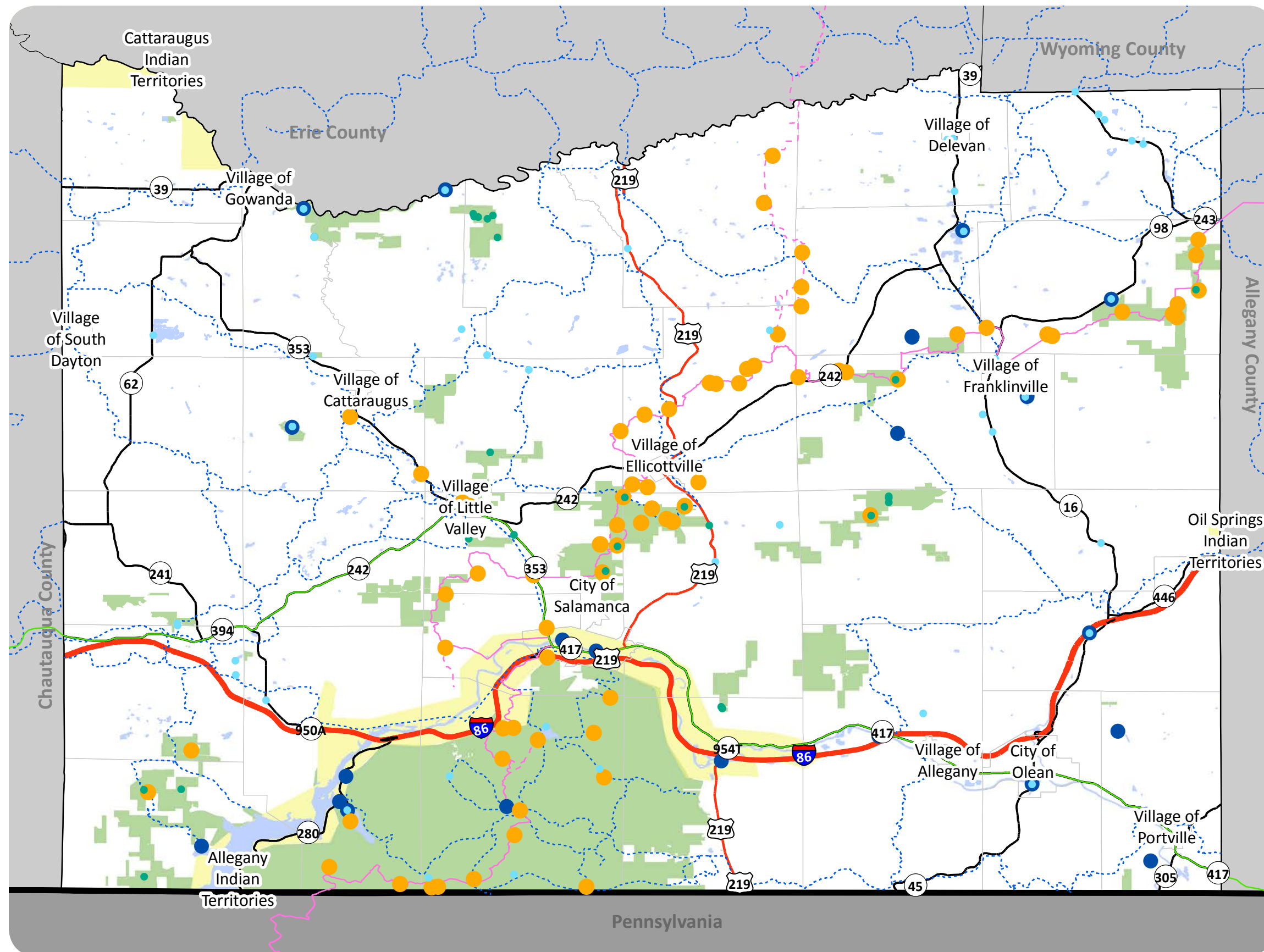
Some of these are challenging routes that should only be run by experienced paddlers with someone who knows the route well. See <http://enchantedmountains.com/activity/canoeing-kayaking-paddle-boarding> for more information on blue-way trails, including difficulty level and paddling season for each waterbody.

“The 12,000 acre Allegheny Reservoir is located west of Allegany State Park and extends well into the Allegheny National Forest in Pennsylvania. The reservoir offers a multitude of water-based recreational activities including swimming, boating, water-skiing, camping, fishing and sightseeing. Within New York State, the reservoir is surrounded by forest land, with Allegany State Park to the east and the Allegany [Territory] of the Seneca Nation of Indians to the north and west. The undeveloped nature of the State Park and the Seneca [Territories] gives visitors to the reservoir an unprecedented natural experience. The main starting point for boaters in New York State is Onoville Marina. Located on land leased to Cattaraugus County by the U.S. Army Corps of Engineers (USACOE), it has over 400 dock and mooring spaces, six launch lanes, and a 74-site campground with picnic facilities. The marina also offers boat rentals, refueling facilities, and provides convenient access to numerous U.S. Forest Service run campsites, accessible only by boat.

The 2,900-acre Zoar Valley Multiple Use Area is located in the Town of Otto along the northern border of Cattaraugus County. “The multiple-use area, which is divided by Cattaraugus Creek, is especially suited for recreation, including hiking, camping, fishing, sightseeing and white-water rafting. Cattaraugus Creek divides Cattaraugus and Erie Counties and is widely known for its Class III rapids as kayakers and rafters flock to the area during the spring months” (Linkages Between Allegany State Park and Nearby Communities).

TRAIL ACCESS

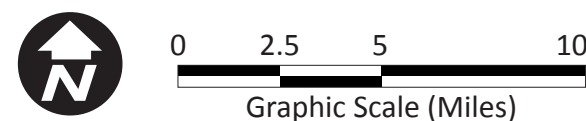
Many trail access points for the Cattaraugus County Trail System have been mapped. These include Finger Lakes / North Country Trail access points, Western New York Mountain Biking Association trail access points, Allegany State Park trail access points, Pat McGee Trail access points and Snowmobile Junctions. Several trails still need to be incorporated in the trail access map including the Allegheny River Valley Trail, the Pennsy Trail, and trail access points for several state parks. See Figure 11 for a map of Trail Access. See the Recommendations section for Trail Access improvements moving forward.



**FIGURE 11
TRAIL ACCESS**

- Fishing Access
- Hunting Access
- Trail Access & Parking
- Boat Launch
- NY Bicycle Route 17
- Finger Lakes / North Country Trail
- - - Conservation Trail
- - - Snowmobile Trails
- Interstate
- Highway
- Major Road
- Waterbodies
- Seneca Nation of Indians
- Park Boundaries

Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services, Finger Lakes Trail Conference, & Western New York Mountain Biking Association



Please see the following websites for more information:
<http://www.fltconference.org/>
<http://wnymba.org/>
<http://maps2.cattco.org/trailsflex/>



TRAILS UNDER DEVELOPMENT

There are a number of trail projects underway in and around Cattaraugus County:

Ellicottville-Great Valley Trail. “The Ellicottville-Great Valley (EVG) Trail Committee has completed a Master Plan, which outlines plans for a new, 15 mile network of paved, multi-use trails that would connect the Village of Ellicottville and the Towns of Ellicottville and Great Valley. When completed, the trail system is envisioned to have several points of linkage. The trail network is proposed to be constructed in up to nine phases, depending upon the availability of funding. One section of the trail network would connect the Village of Ellicottville with the Ellicottville Central School in the Town of Great Valley. Other sections would run along Great Valley Creek and Elk Creek, and another section would connect the Town Center with parts of the Village and Route 242/219. The plan has the support of local municipal officials, the public, and the business community. The Committee is pursuing an implementation strategy that combines fundraising, donated services, and grants to provide the funds to make the EVG trail system a reality” (Vision 2025 Comprehensive Plan).

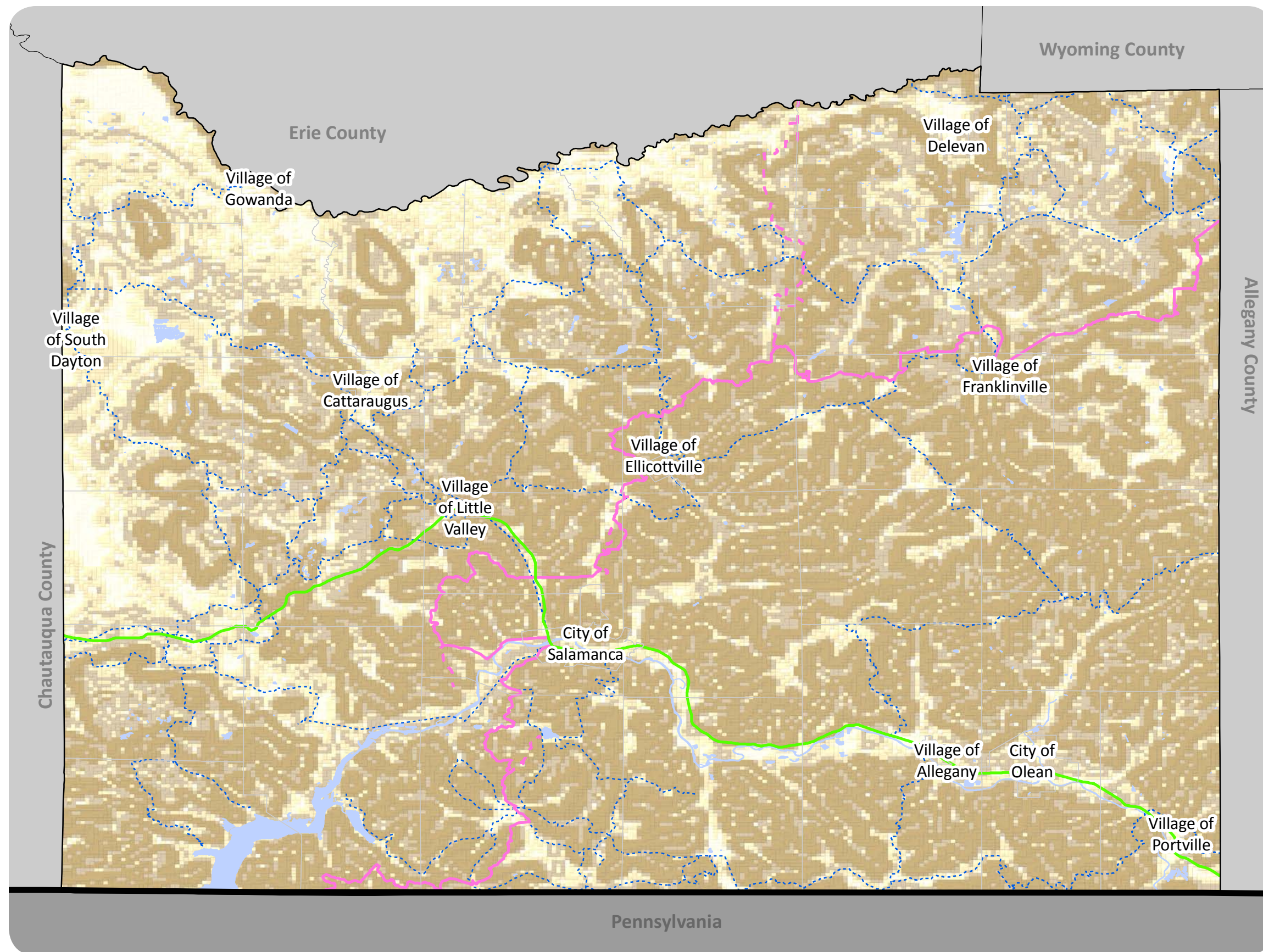
Erie Cattaraugus Rail Trail. 27.6 mile proposed trail along the unused Buffalo-Pittsburgh Railroad Line. The trail would begin in Orchard Park in Erie County and end in the Town of Ashford in Cattaraugus County. “It connects five communities, two ski areas and travels through some of the most spectacular countryside in all of Western New York” (Erie Cattaraugus Rail Trail, Inc.).

Genesee Valley Greenway and Genesee - Susquehanna Greenway. The Genesee Valley Greenway recently became an official State Park. This 90 mile greenway extends from Rochester, NY and the Erie Canalway Trail to the Village of Cuba, NY in Allegany County. There are plans to extend the Genesee Valley Greenway to Hinsdale, NY in Cattaraugus County, along an abandoned rail line.

The Genesee - Susquehanna Greenway is a trail under development, from Rochester, NY to Havre de Grace, MD. This trail would incorporate the Genesee Valley Greenway from Rochester, NY to the Town of Belmont NY in Allegany County.

Allegheny River Valley Blue Trail. “A group of representatives from the involved communities have been meeting to plan for a water-based “blue” trail along the Allegheny River, from Portville to the Allegheny Reservoir. The goal is to develop a series of boat ramps for small boats, canoes, kayaks and similar craft along the river, together with parking facilities, waterfront parks and other facilities to support additional water based use of the river. The group is working to develop a master plan for the trails. Among the goals of the trail organizers is the promotion of the Blue Trail using web-based maps showing GPS coordinates of the boat launches and parking facilities and also providing information regarding locations of local retail establishments of interest to boaters, such as restaurants and other amenities” (Vision 2025 Comprehensive Plan).

Allegheny River Public Access and Recreation Plan. A planning document is underway to ‘map existing and proposed recreational networks along the Allegheny River, including hiking trails, bikeways, and public access’. This plan is a joint project of the City of Olean, City of Salamanca, and Towns of Allegany, Portville, Olean and Salamanca and the Villages of Portville and Allegany.

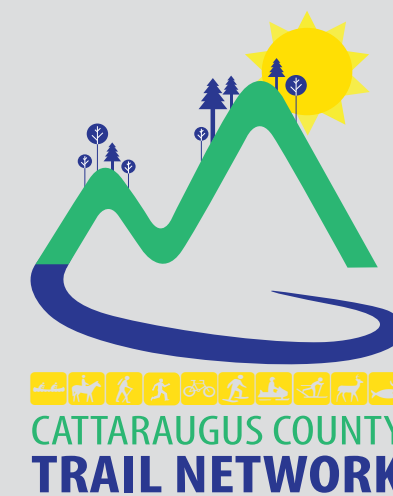


Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



0 2.5 5 10
Graphic Scale (Miles)

Barton & Loguidice



**FIGURE 12
SLOPE MAP**

- Finger Lakes North Country Trail
- Conservation Trail
- NY Bicycle Route 17
- Snowmobile Trails
- Waterbodies

Percent Slope

0 - 70
70 - 80
80 - 85
85 - 88
88 - 90

Percent slope is based on 20' contour data provided by Cattaraugus County.



Tuna Creek Trail. “A group from the Town of Carrollton is working to develop a trail along Tuna (Tunungwant) Creek, which flows northward from McKean County, Pennsylvania, through the Town of Carrollton to the Allegheny River. This future trail could connect to the Crook Farm Trail along Tuna Creek in Bradford, Pennsylvania. The Crook Farm Trail is part of the Tuna Valley Trail Association’s network of trails along parts of Tuna Creek in Pennsylvania” (Vision 2025 Comprehensive Plan).

Nearby Trail Initiatives. There are several proposed trails in adjacent counties with the potential to link into the Cattaraugus County Trail System. These include the **Chautauqua County Greenway**, and the **Chautauqua County Equestrian Trail System Loop**.

SLOPE AND TOPOGRAPHY

Cattaraugus County is characterized by steep, hilly topography. Most of the County has a 70% slope or greater. The forested hillsides present an opportunity for the trail system, creating picturesque scenery and more challenging trails that attract more experienced trail-goers. See Figure 12 for more information on Slope and Topography.

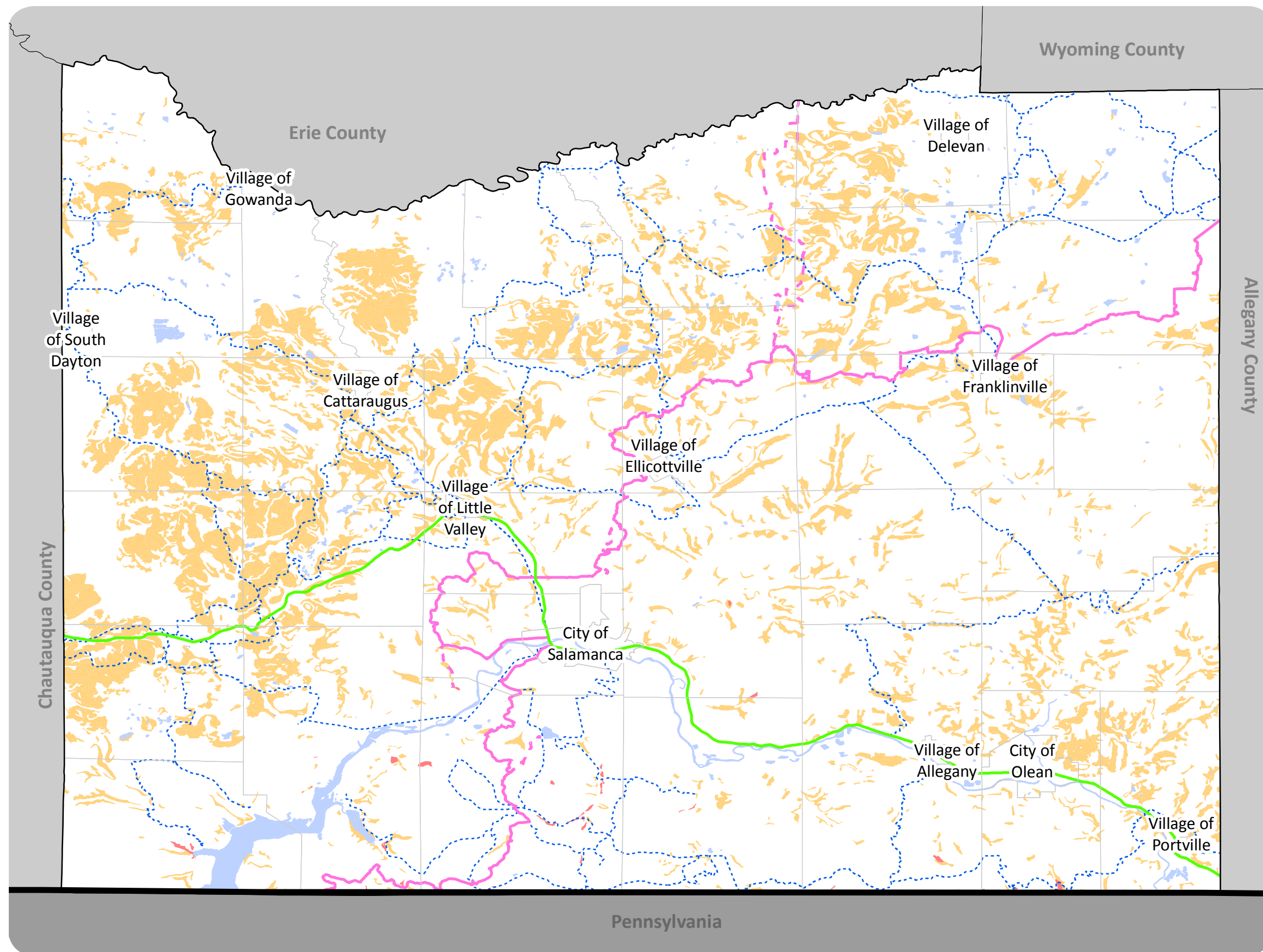
Though the terrain is a resource for the Cattaraugus County Trail System, it also presents challenges. It may make it more difficult and expensive to design ADA accessible trails or trails that are suitable for less experienced users. Steep topography can also increase the chances of erosion, making it more difficult to design sustainable trails. See the next section, Soils and Erosion, for more information on Erosion in Cattaraugus County. See Appendix A for more information on sustainable trail design.

SOILS AND EROSION

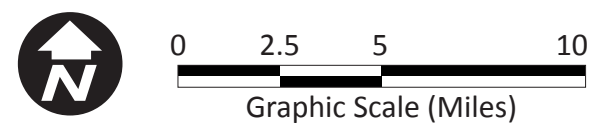
There is a band of erodible soils extending from the Town of Randolph, in the south western corner of the County, to the Town of Yorkshire, in the north east. Trails in this area may be more difficult to build and require more maintenance. These challenges may be more severe where erodible soils are farmed. See Figure 13 for Erodible Soils in Cattaraugus County. See Figure 3 for Land Use in Cattaraugus County. See Appendix A for more information on sustainable trail design.

WETLANDS AND STREAMS

Review of United States Fish and Wildlife Service (FWS) National Wetlands Inventory (NWI) mapping indicates there are federally-mapped wetlands located within the County. The federally-mapped wetlands are identified in Figure 14.



Map Sources: NYS GIS Clearing House, Soil Survey Geographic (SSURGO) Database, Cattaraugus County GIS Services



**FIGURE 13
ERODIBLE SOILS**

- Finger Lakes North Country Trail
- - - Conservation Trail
- NY Bicycle Route 17
- - - Snowmobile Trails
- Waterbodies
- Rill erosion
- Sheet erosion

Erodible soil data is based on web soil survey - an online soil database provided by the USDA.

These soils are susceptible to sheet and rill erosion. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity.

Trails in areas with erodible soils will have higher environmental impact and require more maintenance.



New York State Freshwater Wetlands & Protected Streams. The Freshwater Wetlands Act (Article 24 and Title 23 of Article 71 of the Environmental Conservation Law) gives NYSDEC jurisdiction over state-protected wetlands and adjacent areas (100-foot upland buffer). The Freshwater Wetlands Act requires NYSDEC to map all state-protected wetlands (typically over 12.4 acres in size) to allow landowners and other interested parties a means to determine where state jurisdictional wetlands exist. State-regulated wetlands check zones are identified in Figure 14.

Under Article 15 of the Environmental Conservation Law (Protection of Waters), the NYSDEC has regulatory jurisdiction over any activity that disturbs the beds or banks of protected streams. In addition, small lakes and ponds with a surface area of 10 acres or less, located within the course of a stream, are considered to be part of a stream and are subject to regulation under the stream protection category of Article 15. Protected streams means any stream, or particular portion of a stream that has been assigned by the NYSDEC any of the following classifications or standards: AA, AA(t), A, A(t), B, B(t) or C(t) (6 NYCRR part 701).

- A classification of AA or A indicates that the best use of the stream is as a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing.
- The best usages of Class B waters are primary and secondary contact recreation and fishing.
- The best usage of Class C waters is fishing. Streams designated (t) indicate that they support trout, and also include those more specifically designated (ts) which support trout spawning.
- Classification D is unprotected waters and suitable for fishing and non-contact recreation.

These streams, along with all other perennial and intermittent streams in the study area, are also protected by the Corps under Section 404 of the Clean Water Act.

A formal wetland delineation would be required during design development for individual trails to make a final determination of wetland and stream boundaries. The wetland delineation would need to be conducted according to the three-parameter methodology presented in the 1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987) and the updated methodologies presented in the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (2009).

A final determination of jurisdictional status can only be made after an on-site agency review of identified boundaries.

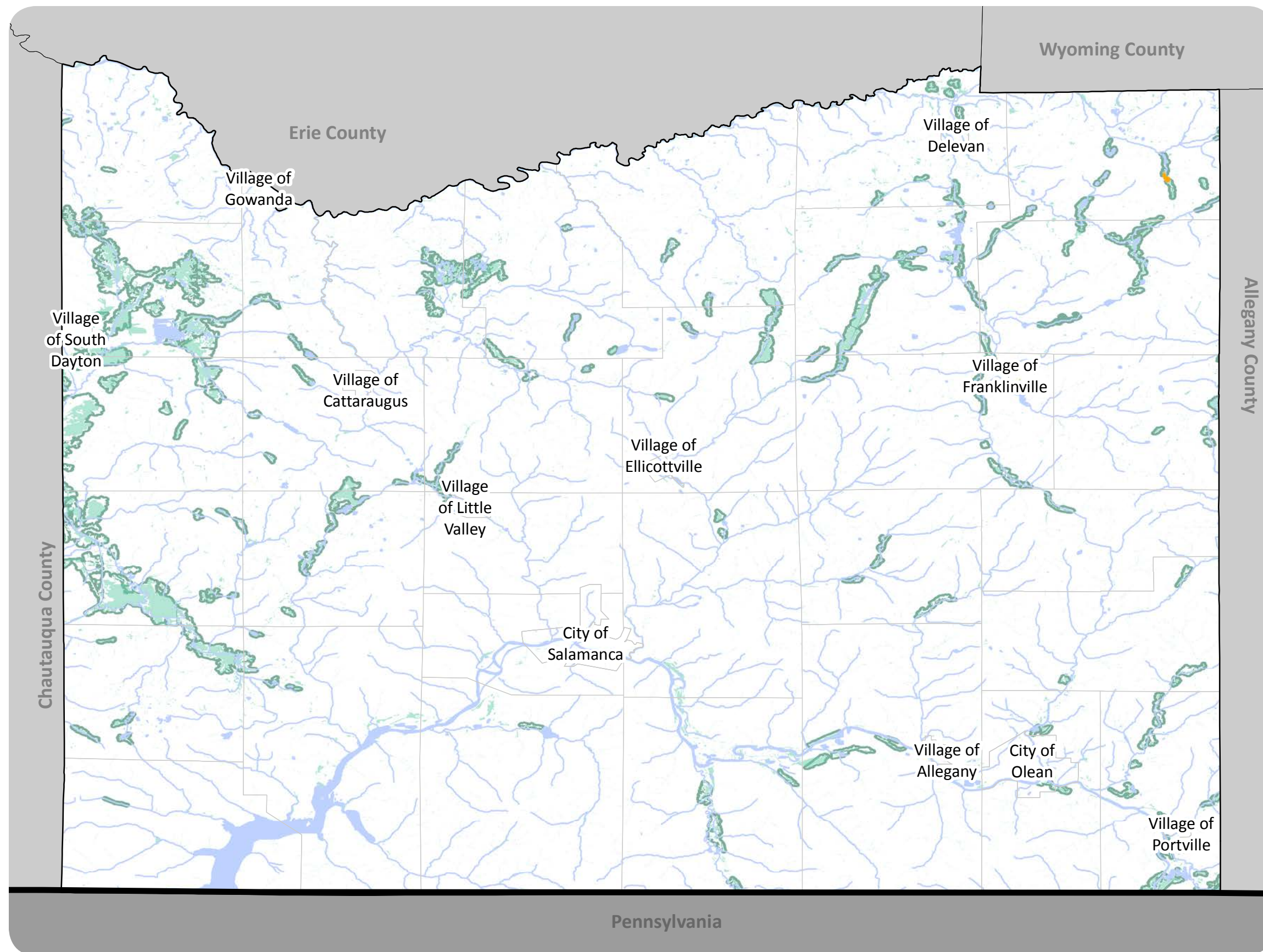


FIGURE 14
WETLANDS & STREAMS

- Impaired Waterbodies
- Waterbodies
- Streams
- Federal Wetlands
- NYS Wetland Check Zones

IMPAIRED WATERBODIES

New York State Priority Waterbodies List provides a record of the status of all waterbodies within the state.

FEDERAL WETLANDS

The National Wetlands Inventory is a publically available resource that provides detailed information on the abundance, characteristics, and distribution of US wetlands.

NYS WETLAND CHECK ZONES

Approximate location of wetlands that are currently mapped or officially proposed for addition to the wetland maps and currently regulated under the NYS Freshwater Wetlands Act. There may be additional wetlands that may be protected under local or federal law.

Map Sources: US FWS, NYS GIS Clearing House, NYSDEC, Cattaraugus County GIS Services



0 2.5 5 10
Graphic Scale (Miles)





SIGNIFICANT NATURAL COMMUNITIES

Significant Natural Communities are rare or high quality wetlands, forests, grasslands, ponds, streams, and other types of habitat, ecosystems, or ecological areas.

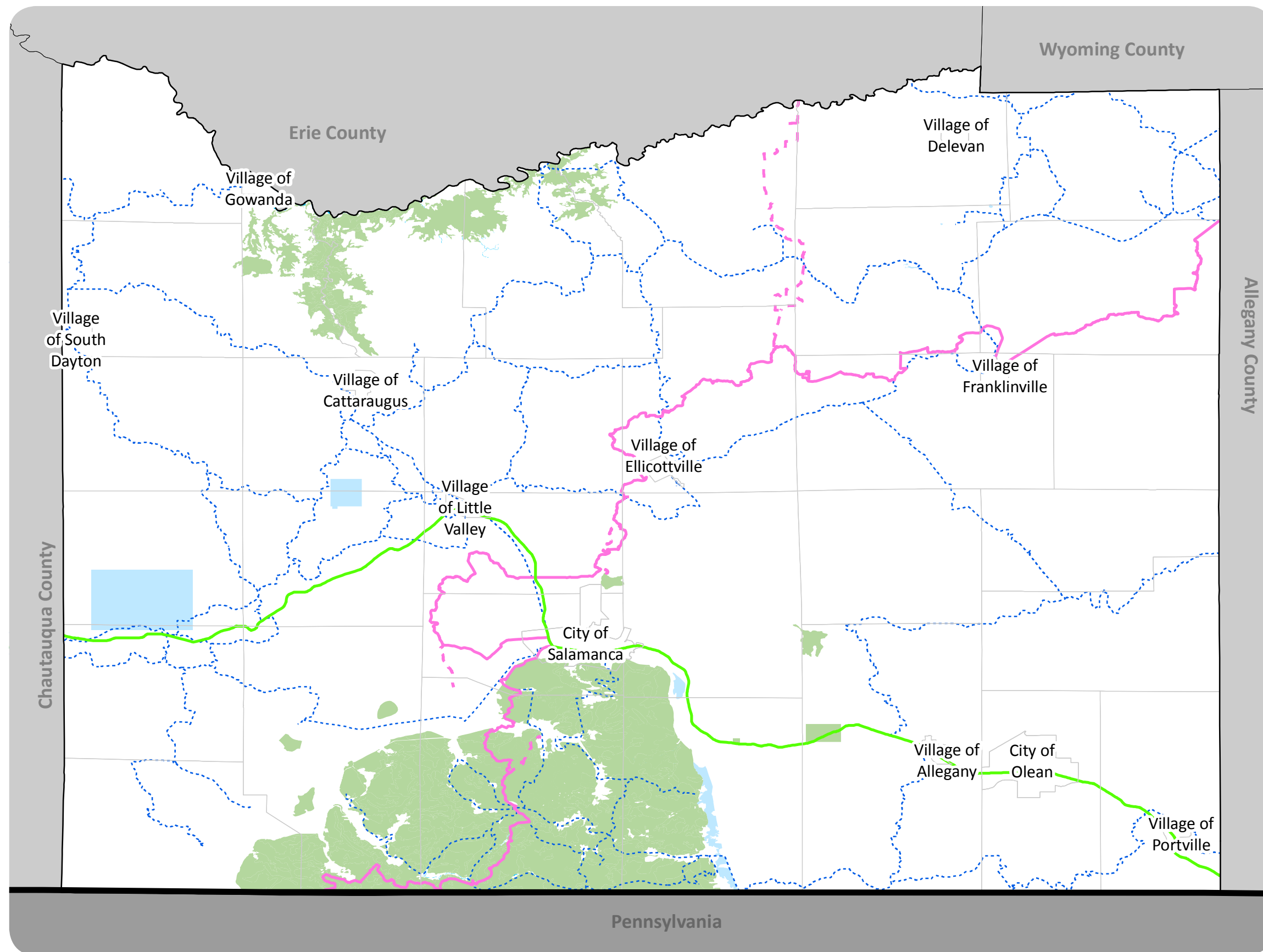
“NY Natural Heritage documents only those locations of natural communities where the community type is rare in New York State; or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape” (NYSDEC).

Cattaraugus County has an abundance of Significant Natural Communities, particularly in and around Allegany State Park, and in the Towns of Persia, Otto and East Otto along the northern border of Cattaraugus County. See Figure 15 for locations of Significant Natural Communities in Cattaraugus County, Figure 16 for a map of the Significant Natural Communities in Allegany State Park, and Figure 17 for a map of the Significant Natural Communities in and around the Zoar Valley MUD.

The most common Significant Natural Communities in Cattaraugus County are:

- Beech-maple mesic forest (76 square miles)
- Hemlock northern hardwood forest (66 square miles)
- Rich mesophytic forest (59 square miles)

See Table 5 for Significant Natural Communities 1 square mile and greater in Cattaraugus County.



Map Sources: NYS GIS Clearing House, NYSDEC, Cattaraugus County GIS Services

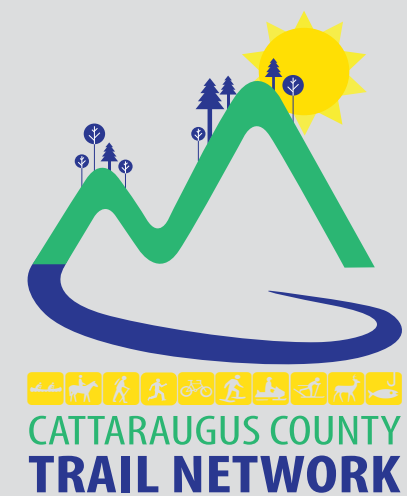
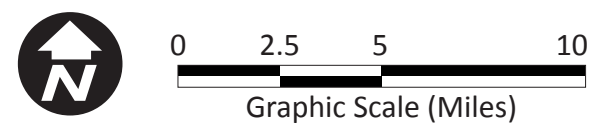


FIGURE 15
SIGNIFICANT NATURAL COMMUNITIES

- NY Bicycle Route 17
- Finger Lakes North Country Trail
- - - Conservation Trail
- ... Snowmobile Trails
- Wetlands
- Streams
- Forests

Significant Natural Communities include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas.

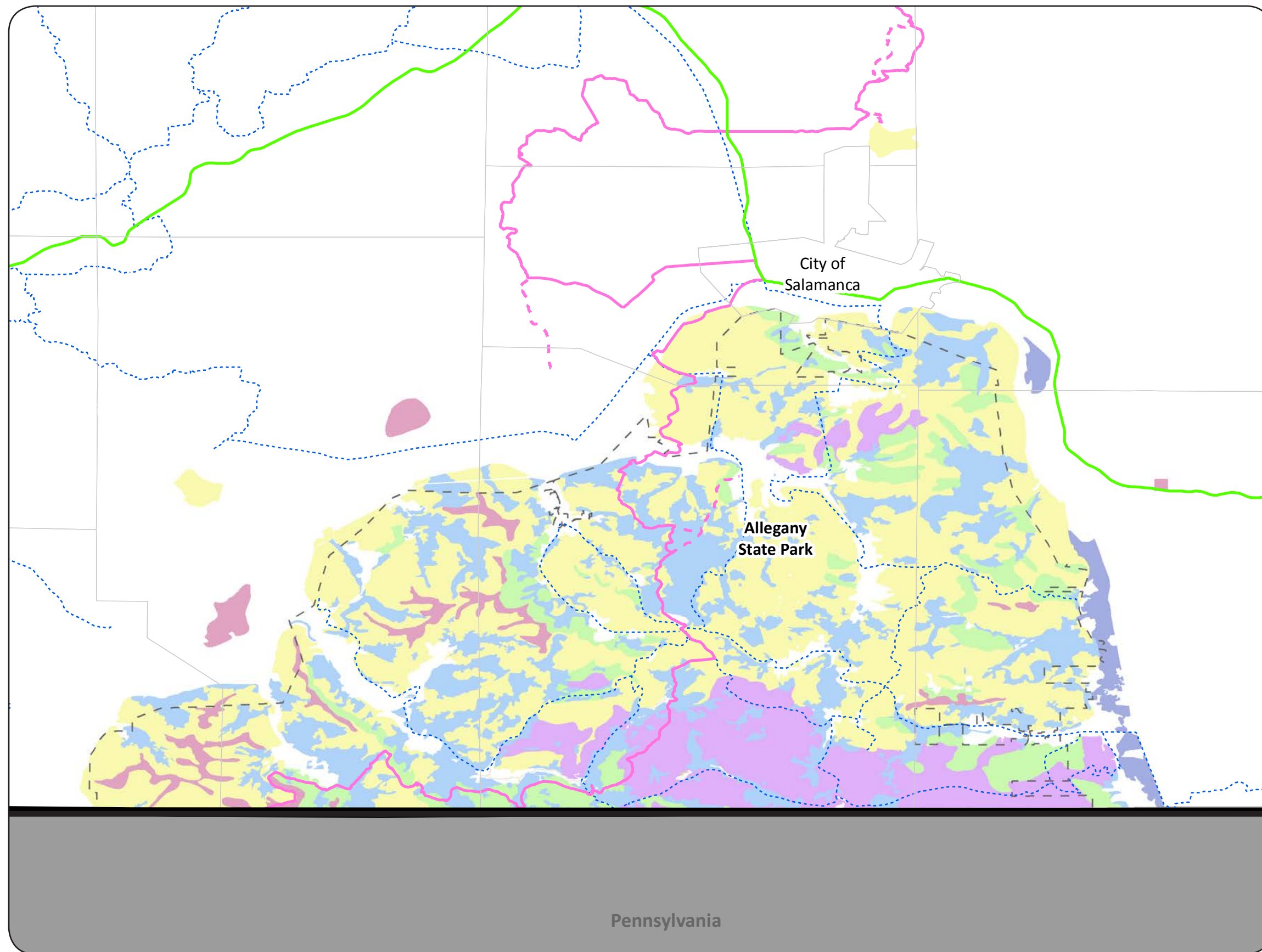
- Rare in New York State; or
- High-quality examples of more common communities that meet criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape.

Provided by NYSDEC.

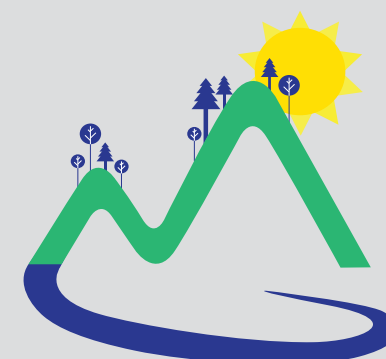


*Table 5: Significant Natural Communities
1 square mile or greater*

Name	Square Miles	Name	Square Miles
Beech-maple mesic forest	76	Deep emergent marsh	1
Hemlock-northern hardwood forest	66	Confined river	1
Rich mesophytic forest	59	Shale cliff and talus community	1
Appalachian oak-hickory forest	34	Shale talus slope woodland	1
Floodplain forest	18	Great Lakes dunes	1
Silver maple-ash swamp	18	Shrub swamp	1
Maple-basswood rich mesic forest	16	Rocky headwater stream	1
Allegheny oak forest	9	Inland salt pond	1
Appalachian oak-pine forest	8	Dwarf shrub bog	1
Northern white cedar swamp	7		
Cliff community	7		
Great Lakes aquatic bed	6		
Rich hemlock-hardwood peat swamp	4		
Red maple-hardwood swamp	4		
Red maple-tamarack peat swamp	4		
Black spruce-tamarack bog	3		
Rich graminoid fen	3		
Marl fen	2		
Medium fen	2		
Shallow emergent marsh	2		
Hemlock-hardwood swamp	2		
Limestone woodland	1		



Map Sources: NYS GIS Clearing House, NYSDC, Cattaraugus County GIS Services



CATTARAUGUS COUNTY
TRAIL NETWORK

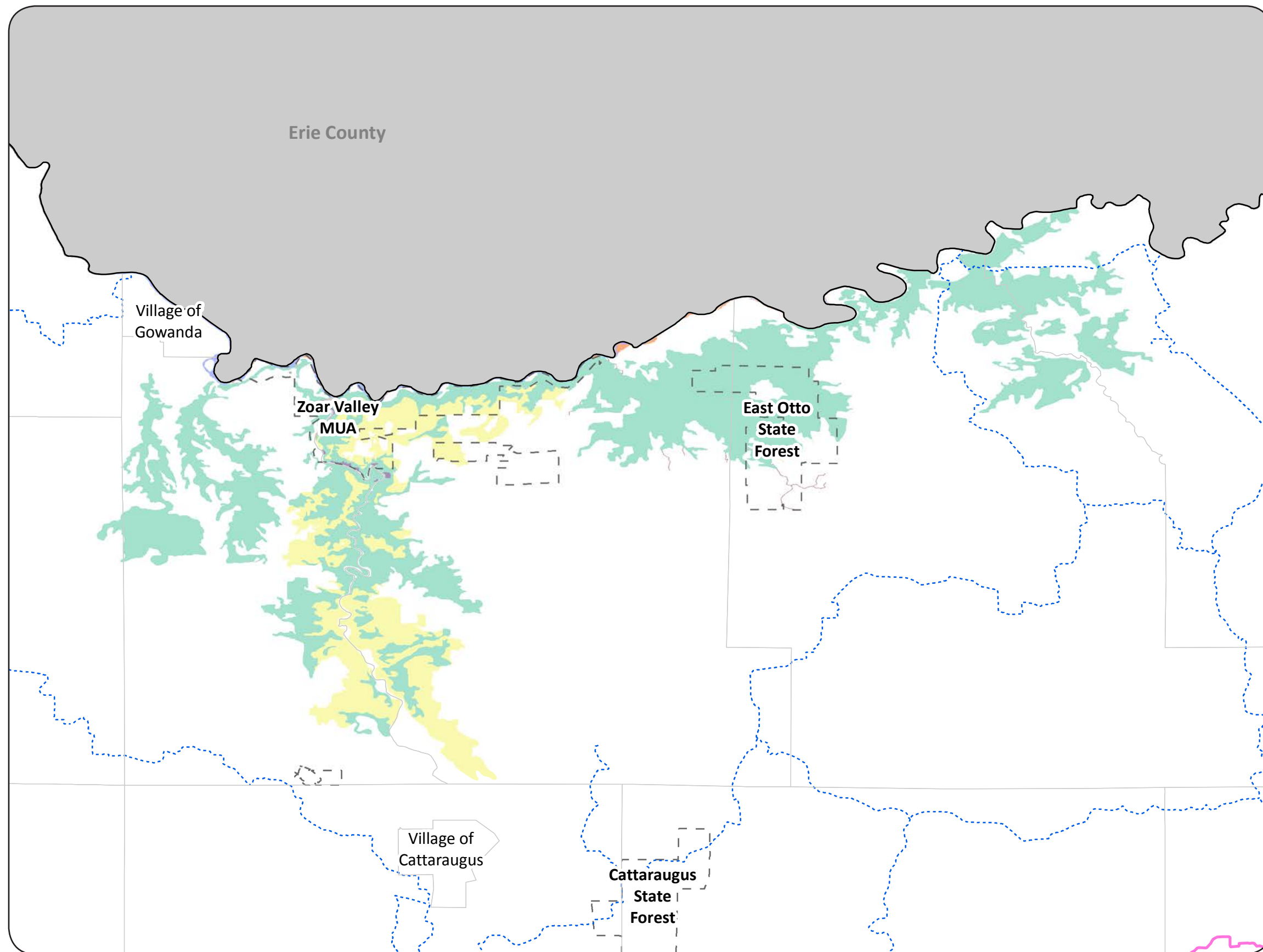
FIGURE 16

SIGNIFICANT NATURAL COMMUNITIES ALLEGANY STATE PARK

- NY Bicycle Route 17
- Finger Lakes North Country Trail
- - - Conservation Trail
- ... Snowmobile Trails
- Allegany State Park
- Allegheny oak forest
- Beech-maple mesic forest
- Floodplain forest
- Hemlock-northern hardwood forest
- Intermittent stream
- Maple-basswood rich mesic forest
- Rich mesophytic forest
- Rocky headwater stream

Significant Natural Communities include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas.

Provided by NYSDC.



Map Sources: NYS GIS Clearing House, NYSDEC, Cattaraugus County GIS Services

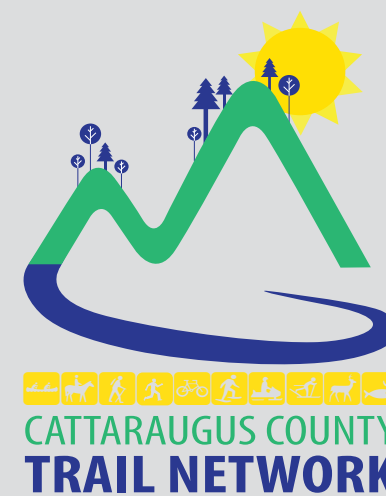
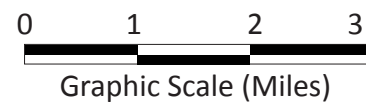
















FIGURE 17
SIGNIFICANT NATURAL COMMUNITIES
PERSIA, OTTO & EAST OTTO

-  Finger Lakes North Country Trail
-  Snowmobile Trails
-  Park Boundaries
-  Calcareous shoreline outcrop
-  Cobble shore
-  Confined river
-  Hemlock-northern hardwood forest
-  Intermittent stream
-  Rich graminoid fen
-  Rich mesophytic forest
-  Rich sloping fen
-  Riverside sand/gravel bar
-  Rocky headwater stream
-  Shale cliff and talus community

Significant Natural Communities include rare or high-quality wetlands, forests, grasslands, ponds, streams, and other types of habitats, ecosystems, and ecological areas.

Provided by NYSDEC.



COMMUNITY CULTURAL AND HISTORIC RESOURCES

Cattaraugus County possesses a host of cultural and historic resources including 21 museums and 34 sites that are included on the National Register of Historic Places. These historic resources help to define the character and identity of Cattaraugus County, and serve as potential destinations for visitors. See Table 6 for a list of museums and galleries in Cattaraugus County. See Table 7 for a list of National Historic Register Sites in Cattaraugus County.

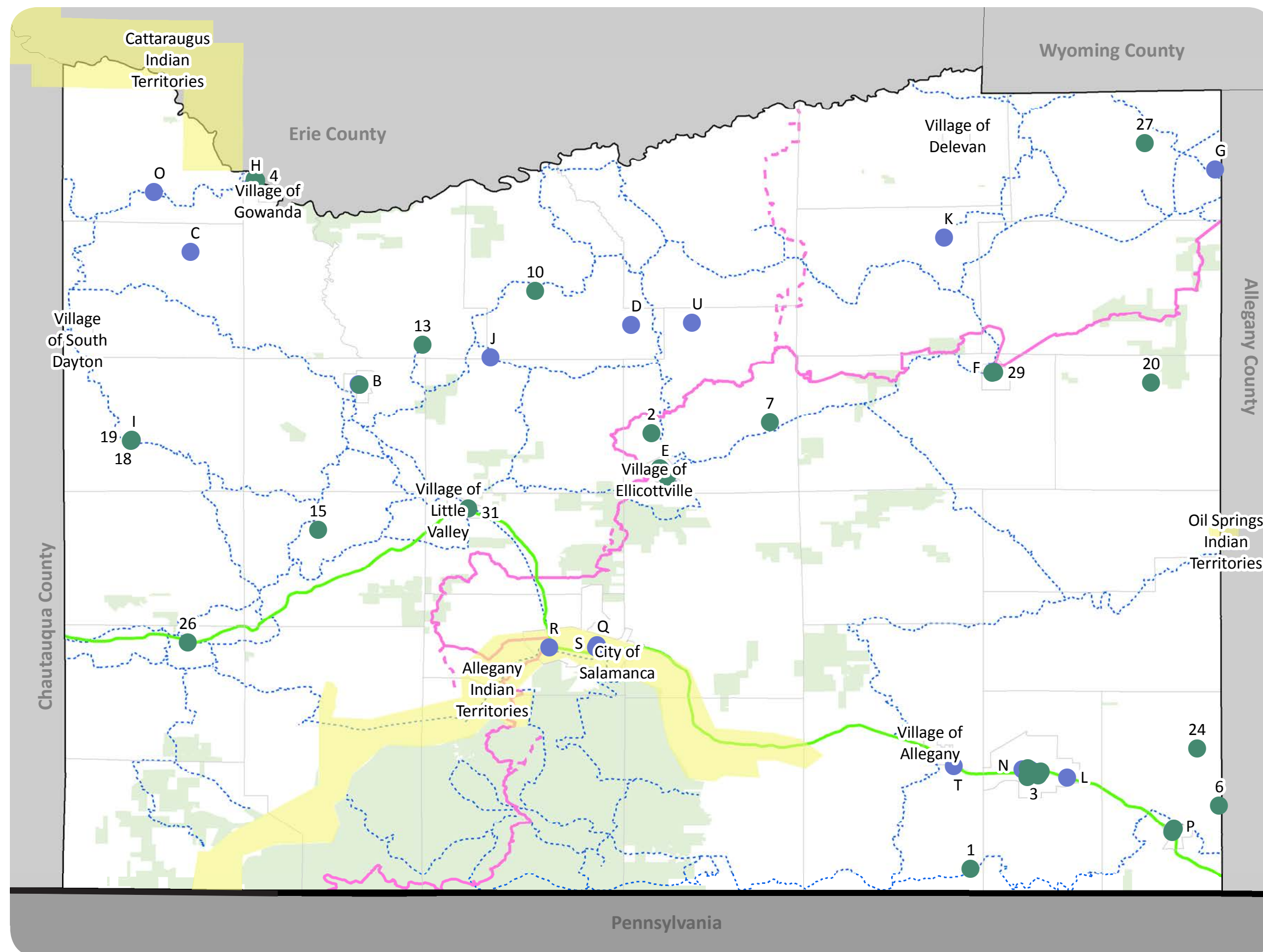
Cattaraugus County is also home to several territories within the Seneca Nation of Indians. The Seneca-Iroquois Museum in Salamanca provides information on the history and culture of the Seneca people.

See Figure 18 for a map of Cultural and Historic Resources.

Cattaraugus County is home to two institutions of higher education. Saint Bonaventure University, located in the Town of Allegany, just outside the Village of Allegany has approximately 2,400 students.

Jamestown Community College is a 2 year college and part of the State University of New York. The Jamestown Community College main campus is in Jamestown, NY in Chautauqua County. The Cattaraugus County Campus is located in the City of Olean. There are also 30 primary and secondary schools in the County.

See Figure 19 for a map of Educational Institutions in Cattaraugus County. See Table 8 for a list of schools in Cattaraugus County.



Map Sources: US CENSUS BUREAU, US NPS, NYS GIS Clearing House, NYSDEC, Cattaraugus County GIS Services

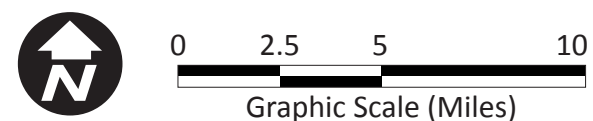


FIGURE 18

COMMUNITY, CULTURAL & HISTORIC RESOURCES

- Historic Register Sites
- Galleries & Museums
- Seneca Nation of Indians
- NY Bicycle Route 17
- Finger Lakes North Country Trail
- - - Conservation Trail
- - - Snowmobile Trails
- Park Boundaries

The National Register of Historic Places is part of a national program to identify, evaluate, and protect America's historic and archaeological resources.

See **Historic Register Table** and **Museums and Galleries Table** or more information.



Table 6: Museums and Galleries

ID	Name	Address	Town
A	American Museum of Cutlery	9 Main Street	Cattaraugus
B	Cattaraugus Area Historical Society Museum	23 Main Street	Cattaraugus
C	Dayton Historical Museum	9561 Rt. 62	Dayton
D	Griffis Sculpture Park	6902 Mill Valley Road	East Otto
E	Ellicottville Historical Society Museum	2 Washington Street	Ellicottville
F	Ischua Valley Historical Society & The Miners Cabin	9 Pine Street	Franklinville
G	Country Canvas Art Studio	86 Baird Road	Freedom
H	Gowanda Historical Museum	2 Chestnut Street	Gowanda
I	Leon Historical Society	Route 62	Leon
J	Brookside Studio Watercolors	8363 Maples Road	Little Valley
K	Cattaraugus County Historical Museum	9824 Rt. 16	Machias
L	Cutco/Ka-Bar Visitors Center	1040 East State Street	Olean
M	Fannie E. Bartlett Historical House & Olean Point Museum	302 Laurens Street	Olean
N	Olean Theatre Workshop	702 Washington Street	Olean
O	Perrysburg Historical Museum	10460 Peck Hill Road	Perrysburg
P	Portville Historical & Preservation Society Museum	17 Maple Avenue	Portville
Q	Salamanca Rail Museum	170 Main Street	Salamanca
R	Seneca-Iroquois National Museum	814 Broad Street	Salamanca
S	Salamanca Historical Society Museum	125 Main Street	Salamanca
T	The Regina A. Quick Center for the Arts	3261 West State Road	St. Bonaventure
U	Antler Shed Whitetail Museum	8558 Hebdon Road	West Valley



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Table 7: National Register Historic Sites

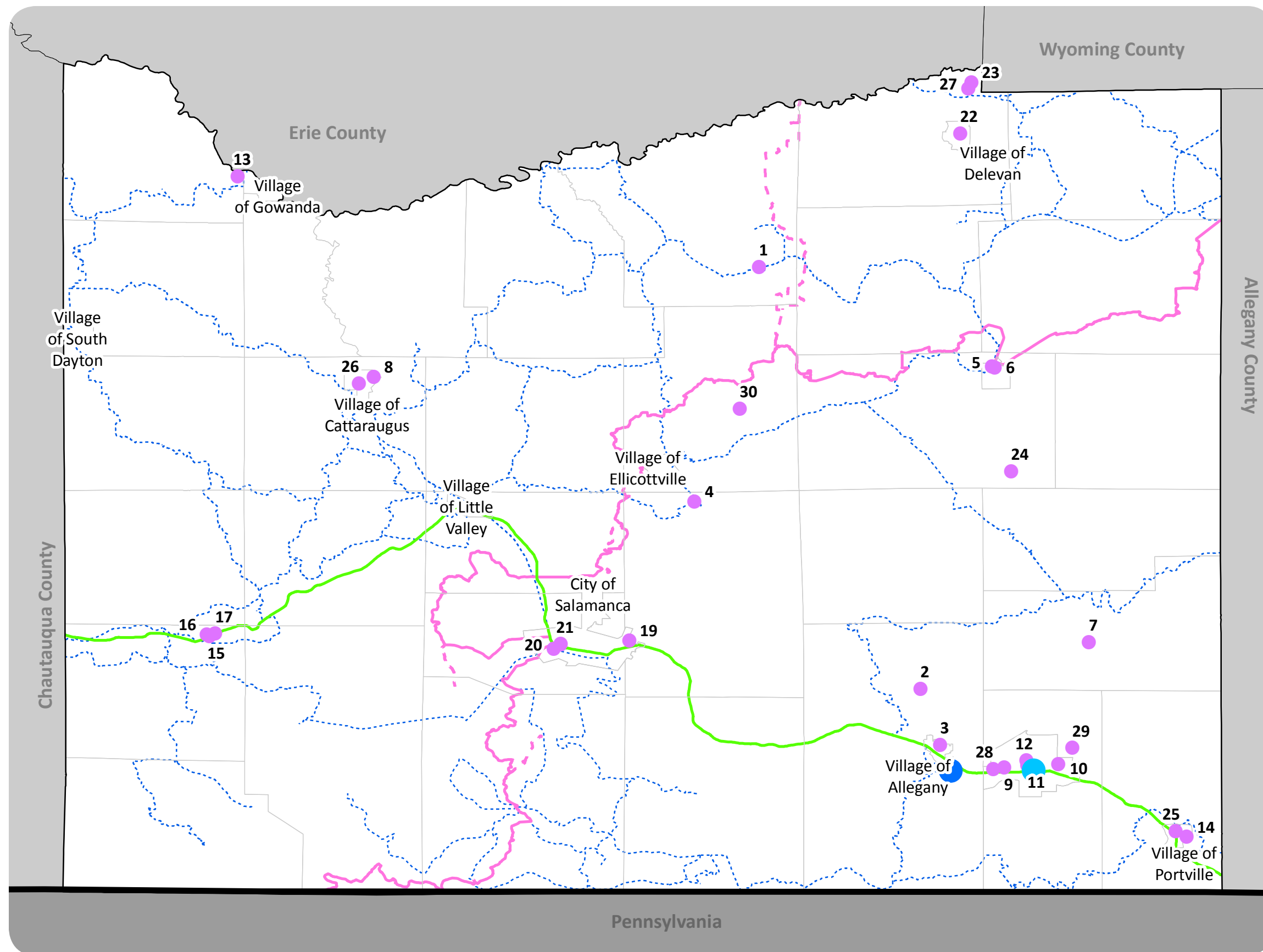
ID	Name
1	520 Hostageh Road
2	Aiken, John. J., House
3	B’Nai Israel Temple
4	Bank of Gowanda
5	Beardsley-Oliver House, 312 Laurel Avenue
6	Bedford Corners Historic District
7	Bryant Hill Cemetery
8	Cattaraugus Village Commercial Historic District
9	Conklin Mountain House
10	East Otto Union School
11	Ellicottville Historic District
12	Ellicottville Town Hall
13	First Congregational Church of Otto
14	Franklinville Park Square Historic District
15	Gladden Windmill (Milks Windmill)
16	Gowanda Historic District
17	Jefferson Street Cemetery (AKA Ellicottville Cemetery)
18	Leon Grange #795
19	Leon United Methodist Church
20	North Lyndon Schoolhouse
21	Oak Hill Park Historic District

ID	Name
22	Olean Armory
23	Olean Public Library
24	Pfeiffer- Wheeler Chestnut Cabin
25	Portville Free Library
26	Randolph Historic District
27	Salem Welsh Church
28	School House #10
29	Simeon Robbins House (Miner's Cabin)
30	St. Stephen's Episcopal Church Complex
31	United States Post Office-Little Valley
32	United States Post Office- Olean
33	Wheeler, William E., House



Table 8: Schools

ID	Name	Town	Type
1	West Valley Central	West Valley	Public
2	Allegany- Limestone Middle/High	Allegany	Public
3	Allegany- Limestone Elementary Allegany Campus	Allegany	Public
4	Ellicottville Central	Ellicottville	Public
5	Franklinville Central Middle/High	Franklinville	Public
6	Franklinville Central Elementary	Franklinville	Public
7	Hinsdale Central	Hinsdale	Public
8	Cattaraugus- Little Valley Elementary/Middle/High	Cattaraugus	Public
9	Washington West Elementary- Olean	Olean	Public
10	East View Elementary- Olean	Olean	Public
11	Olean High	Olean	Public
12	Olean Middle	Olean	Public
13	Gowanda Elementary/Middle/High	Gowanda	Public
14	Portville Central	Portville	Public
15	Randolph Central Middle/High	Randolph	Public
16	G.N. Chapman Elementary Randolph Central	Randolph	Public
17	Randolph Academy	Randolph	Private
18	Salamanca High	Salamanca	Public
19	Prospect Elementary- Salamanca	Salamanca	Public
20	Seneca Elementary- Salamanca	Salamanca	Public
21	Salamanca Middle	Salamanca	Public
22	Pioneer Central Elementary	Delevan	Public
23	Pioneer Central Middle/High	Yorkshire	Public



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services

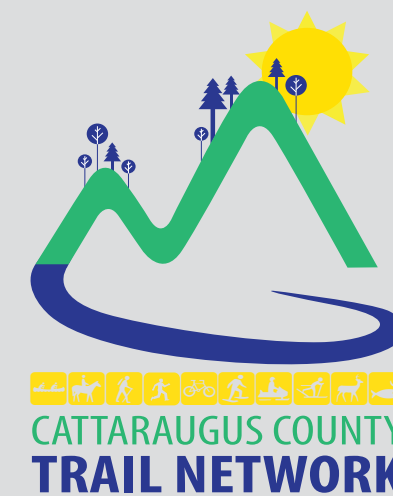
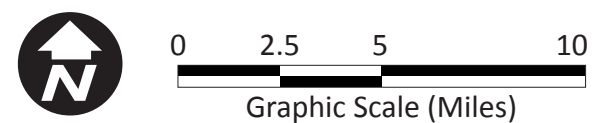


FIGURE 19
EDUCATIONAL
INSTITUTIONS

- Jamestown Community College, Cattaraugus County Campus
- Saint Bonaventure University
- Schools
- NY Bicycle Route 17
- Finger Lakes North Country Trail
- - - Conservation Trail
- - - - Snowmobile Trails

See **Schools Table** for more information.

Educational institution locations provided by Cattaraugus County GIS Services.



ID	Name	Town	Type
24	New Life Christian School	Franklinville	Religious
25	Portville Baptist Christian School	Portville	Religious
26	Cattaraugus Christian School	Cattaraugus	Religious
27	Central Baptist Christian School	Yorkshire	Religious
28	Archbishop Walsh High School/ Southern Tier Catholic School	Olean	Religious
29	Cattaraugus- Allegany BOCES- Olean Campus	Olean	Public
30	Cattaraugus- Allegany BOCES- Ellicottville Campus	Ellicottville	Public

TOURISM ATTRACTIONS AND SERVICES

Tourism in Cattaraugus County represented 6.6% of jobs and 4.2% of wages in 2013. “Arts, Entertainment, Recreation, Accommodation and Food Services” has been the 4th most important core industry in Cattaraugus County for the last 15 years according to the US Census (2015 Vision Plan).

In addition to the extensive trail system there are many other tourism attractions and services within the County, including the attractions listed below.

CASINOS AND GAMING

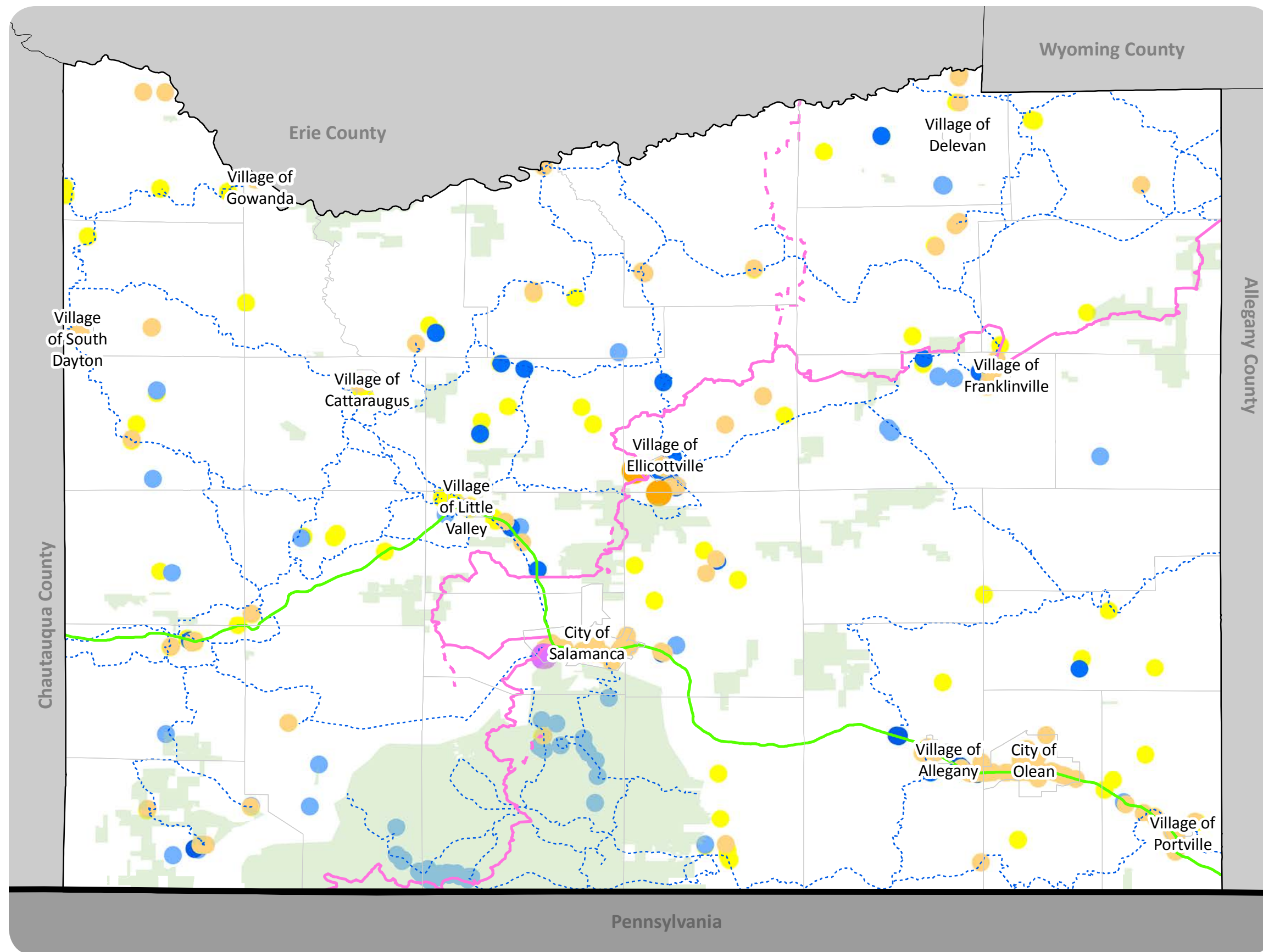
Seneca Allegany Resort & Casino in Salamanca NY provides slot machines, table games, dining, and over 400 hotel rooms. The Casino has over 1 million visitors each year (Outdoor Recreational Trails in Cattaraugus County, NY).

Seneca Gaming and Entertainment in Irving, Salamanca, and Oil Springs offers games including bingo, poker and slot machines.

DOWNHILL SKIING

Holiday Valley Resort is the most visited ski resort in New York State, and attracts 700,000 visitors each year. The resort offers 58 different ski slopes as well as accommodations, shopping, an 18 hole golf course, swimming, a tubing park, and adventure park (2015 Vision Plan).

HoliMont ski resort has more members than any other private ski area in North America. The resort offers 52 slopes and is open to the public for weekday skiing (2015 Vision Plan).

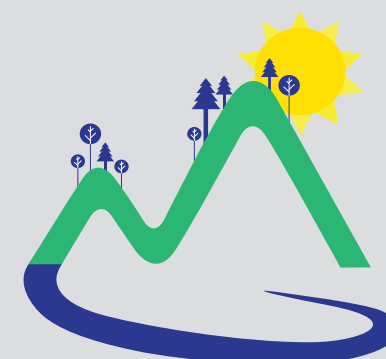


Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services, Google Maps



0 2.5 5 10
Graphic Scale (Miles)

Barton & Loguidice



**CATTARAUGUS COUNTY
TRAIL NETWORK**

FIGURE 20

TOURISM ATTRACTIONS & SERVICES

- NY Bicycle Route 17
- Finger Lakes North Country Trail
- - - Conservation Trail
- - - Snowmobile Trails
- Park Boundaries
- Casino
- Ski Resorts
- Restaurants
- Hospitality Services
- Camping
- Outdoor Equipment Suppliers



HUNTING AND FISHING

Cattaraugus County is one of the top three counties for both deer and turkey hunting in New York State. According to InFisherman magazine it is also one of the top 10 places for steelhead fishing in the state. (enchantedmountains.org).

AMISH TRAIL AND COUNTRY TOUR

The NY Amish Trail is an on-road trail connecting Amish owned sites and businesses throughout the Chautauqua-Allegany Region. The majority of the trail is within Cattaraugus County including the Town of Leon, which has the largest Old-Order Amish community in the United States.



HORSEBACK RIDING

In addition to the Cattaraugus County Equestrian Trails, there are a number of equestrian events throughout the year. The County is also home to a number of ranches and other equestrian tourism businesses. For a current list of equestrian events, please see: <<http://enchantedmountains.com/horse>>.

OUTDOOR EQUIPMENT SUPPLIERS

There are over 80 outdoor equipment supply businesses in Cattaraugus County.

HOSPITALITY AND DINING

There are over 25 hotels, motels and bed and breakfasts in Cattaraugus County as well as over 160 restaurants.

See Figure 20 for more information.

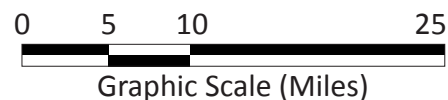
RAIL LINES

Cattaraugus County has many rail lines, both active and abandoned, connecting communities within and beyond the County border.

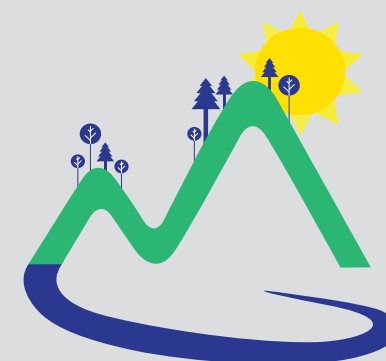
See Recommendations section for possible Rail-to-Trail and Rail-with-Trail projects. See Figure 21 for a map of active and abandoned railways.



Map Sources: NYS Department of Transportation



Barton & Loguidice



**CATTARAUGUS COUNTY
TRAIL NETWORK**

**FIGURE 21
RAILROADS**

- Junction or Freight Station
- Operating Rail Line
- - - Abandoned / Service Discontinued



5.0 TRAIL USER GROUPS



USER TYPES

The following section discusses different types of trail users, including bicyclists, pedestrians, emerging user groups, non-motorized winter sports enthusiasts and equestrians. The Cattaraugus County Trail System is used by all of these groups. Some trails are used exclusively by a target group, while other trails welcome many different users. Where different trail uses are compatible, multi-use trails are desirable because they provide recreation and transportation opportunities to a variety of users.

Please see Appendix B for a discussion of managing conflict between trail users.

ON-ROAD CYCLISTS

On average, bicyclists require a minimum width of 40 inches to operate. When bicyclists are traveling alongside motor vehicles, a width of five feet or more is recommended to allow bicyclists to safely maneuver (AASHTO). While the minimum operating space and bicycle facility width remains relatively equal between users, the skills, confidence and preferences of bicyclists vary significantly. The challenge in planning for bicycle facilities is designing for the diversity of user skills. According to the Federal Highway Administration (FHWA), the Federal policy goal for bicycling is “to accommodate current use and encourage increased use, while enhancing safety.”



The FHWA identifies the following types of bicycle users:

- Group A: Advanced Bicyclists
- Group B: Basic Bicyclists
- Group C: Children

Defining the bicyclist skill level through three groups and designing for the specific groups helps to refine roadway and path treatments. A description of the three different types of bicycle users by the American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities is provided below.

GROUP A: ADVANCED BICYCLISTS.

Group A is comprised of advanced or experienced riders who are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with minimal detours and delays. Advanced riders are typically comfortable riding with motor vehicles in traffic. They comprise the majority of the current users of collector and arterial streets and are best served by the following:

- Direct and convenient access to destinations usually via the existing street and highway system.
- The opportunity to operate at maximum speed with minimum delays.
- Sufficient operating space on the roadway or shoulder to reduce or preferably eliminate the need for either the bicyclist or the motor vehicle operator to change position when passing. Ideally for Group A riders, all roads would be “bicycle friendly.”

GROUP B: BASIC BICYCLISTS.

Group B is comprised of basic adult and teenage riders who may also be using their bicycles for transportation purposes, such as getting to the store or visiting friends. Group B bicyclists are less confident of their ability to operate in traffic without special provisions for bicycles. Basic riders prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared use paths and prefer designated facilities such as bike lanes or wide shoulder lanes on busier streets. Some will develop greater skills and progress to the advanced level, but there will always be many millions of basic bicyclists.

Group B Bicyclists prefer:

- Comfortable access to destinations, preferably by a direct route, using either low-speed, low traffic-volume streets or designated bicycle facilities, avoiding routes with high volume or high traffic speeds.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets (bike lanes or shoulders) or separate bike paths.



Group B bicyclists would be best served by designated bicycle facilities on key routes through main travel corridors with lower volume rates and similar travel times.

GROUP C: CHILDREN.

Group C bicyclists are children riding on their own or with their parents. This group may not travel as fast as their adult counterparts, but still require access to key destinations in their community, such as schools, convenience stores and recreational facilities. It is important to make sure children do not develop a false sense of security if they are encouraged to ride on a busy street. Group C bicyclists prefer the following:

- Access to key destinations surrounding residential areas, including schools, recreation facilities, shopping, or other residential areas.
- Residential streets with low motor vehicle speed limits and volumes linked with shared use paths and busier streets with well-defined pavement markings between bicycle and motor vehicles.
- Well-defined separation of bicycles and motor vehicles on arterial and collector streets linked with shared use paths and other bicycle facilities.

Group C bicyclists would be best served by routes that provide access to key destinations, but keep them off of busy roads, as safety is more important than travel time.

In addition to level of comfort, on-road cyclists can also be categorized by different styles of riding. A few examples are included below:

- Bicycle commuters often prefer to bike relatively short distances between local destinations such as home, work, school, and local stores.
- Adventure or touring bicyclists may travel further distances to destinations such as state parks and other tourism attractions.
- Racing cyclists may compete in races of varying lengths, and often travel long distances to compete in their preferred sport.

OFF-ROAD CYCLISTS

Off-road cycling actually refers to a large group of different disciplines. Each of these has its own equipment, philosophy, cultural preferences and needs. Generally, these cyclists prefer rugged terrain, natural surfaces, and less direct routes. Despite these commonalities, it is important to consider different types of off-road cyclists when designing a trail system.



While Cross Country (racing as an Olympic Sport) and Trail Riding are the most common disciplines, types of riding also include:

- All Mountain (aka “Enduro”)
- Downhill – more and more lift-serviced winter resorts are opening for mountain biking
- Freeride/Slopestyle
- Dirt Jumping (including pump tracks)
- Trials
- Fat Biking (snow, sand and more)
- Cyclo-cross
- Gravel Riding/Racing
- Bikepacking

Sometimes the wants and needs of a certain subset may overlap with the needs of another. For example, when comparing Cross Country and Trail Riding, both groups generally enjoy long rides on ascending and descending singletrack trails in remote settings. In contrast, Downhill and All Mountain riders generally prefer riding experiences that rely more upon gravity than pedaling, these two styles are also very compatible disciplines to one another.

When possible, it’s important to offer a variety of trail types because they offer a variety of riding experiences. If the trails do not offer the types of challenges/experiences that riders are seeking, unauthorized alternate lines and features will likely appear.

More accessible, less challenging trails can be used to connect mountain biking trails to population centers to encourage off-road cyclists to access trails by bike.

PEDESTRIANS

On average, two people walking side-by-side or passing one another generally require 4.67 feet of space, while two people in wheelchairs need a minimum of 5 feet to pass one another (AASHTO). While the minimum operating space and pedestrian facility width are relatively similar between users, the skills, confidence and preferences of pedestrians vary. These variations are mostly a result of differences in age and differences in physical, cognitive and sensory abilities.

The 2010 New York State Supplement to the National Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways 2009 Edition mandates that crossings be designed to accommodate a walking speed of 3.5 feet per second. This walking speed should be used in the design of any crossing facilities.



The 2004 AASHTO Pedestrian Guide provides an overview regarding different types of pedestrians. It is more difficult to classify pedestrians into the same types of categories presented for bicyclists. Pedestrians exhibit a wide range of physical, cognitive, and sensory abilities and disabilities. All pedestrians are part of the transportation mix and should be anticipated in the design of pedestrian facilities. Table 9 lists some of the common characteristics of pedestrians at various ages.

Both AASHTO and the FHWA note that there is no single “standard pedestrian” and that the transportation network should accommodate a variety of pedestrians. For example, children and adults perceive their surroundings differently. Children require adult supervision in order to navigate the transportation system safely and independently. Children sometimes walk more slowly than adults, and have a lower eye height. Older adults also have different needs. This group of pedestrians requires more time to cross the street, desires more predictable surfaces, benefits from handrails in steep areas, and needs places to rest along their route. Older pedestrians are also more likely to be killed or seriously injured in a crash. Because we live in an aging population, the needs of older pedestrians will continue to increase.

In addition, some pedestrians have limited mobility. This can be due to physical disabilities, as well as carrying packages, pushing strollers, or otherwise transporting items. The ability to reach a destination depends on a person’s speed, coordination, endurance, and the types of obstacles, grades and cross-slopes he or she encounters.



Source: AASHTO Pedestrian Guide, 2004; and FHWA Bicycle & Pedestrian Program.



BLUE-WAY TRAIL USERS

Blue-way trail users include kayak, canoe and other small craft users. Blue-way trail users seek out a variety of boating conditions. Some paddlers prefer relatively quiet, easy paddling experiences, while others prefer technically challenging waterways. The International Scale of River Difficulty provides a classification system for rivers:

- **Class 1 - Easy.** Fast moving water with riffles and small waves. Few Obstructions, all obvious and easily missed with little or no training. Risk to swimmers is slight; self rescue is easy.
- **Class 2 - Novice.** Straightforward rapids with wide, clear channels which are evident without scouting. Occasional maneuvering may be required, but rocks and medium-sized waves are easily avoided by trained paddlers. Swimmers are seldom injured and group assistance, while helpful, is seldom needed.
- **Class 3 - Intermediate.** Rapids with moderate, irregular waves which may be difficult to avoid and which can swamp an open canoe. Complex maneuvers in fast current and good boat control in tight passages or around ledges are often required; large waves or strainers may be present but are easily avoided.
- **Class 4 - Advanced.** Intense, powerful but predictable rapids requiring precise boat handling in turbulent water. Depending on the character of the river, it may feature large, unavoidable waves and holes or constricted passages demanding fast maneuvers under pressure.
- **Class 5 - Expert.** Extremely long, obstructed, or very violent rapids which expose a paddler to added risk. Drops may contain large, unavoidable waves and holes or steep, congested chutes with complex, demanding routes. Rapids may continue for long distances between pools, demanding a high level of fitness.
- **Class 6 - Extreme.** Runs of this classification are rarely attempted and often exemplify the extremes of difficulty, unpredictability and danger. The consequences of errors are severe and rescue may be impossible. For teams of experts only, at favorable water levels, after close personal inspection and taking all precautions.

Rivers do not have fixed classifications. A river that is class 1 at a low water level may be a class 4 river when water levels are high. This presents challenges for mapping blue-trail difficulty.

[<https://paddling.com/learn/river-classifications/>](https://paddling.com/learn/river-classifications/)

Though paddlers may have different preferences for stream difficulty, selecting safe, easy routes for official blue-way trails encourages the most people to enjoy the blue-trail system.



According to the American Rivers Blue Trails organization, some of the criteria for a good blue-way trail include:

- Rivers that offer a variety of recreational experiences including paddling, fishing, hiking and wildlife watching
- Rivers that connect areas such as parks, refuges and forests
- Reasonably safe rivers with no dangerous currents or heavy commercial traffic
- Rivers near river recreation outfitters or associated businesses

Blue-way trail users also need well mapped, clearly identified access points. “Initial access typically will be at existing parks or open space, federal and state boating launches, private marinas, campgrounds, and lands owned by non-profit organizations and individuals. As the Blue Trail expands, additional access sites can be secured” (American Rivers Blue Trails).

[<http://www.bluetrailsguide.org/build/build/provide-access/#sthash.6YEEpDtC.dpuf>](http://www.bluetrailsguide.org/build/build/provide-access/#sthash.6YEEpDtC.dpuf)

Blue-trail users need high quality launch sites. Launch sites should be designed according to universal design principles. Paddlers need firm and stable surfaces to get in and out of boats, without significant drop offs. A sandy bank with a shallow incline can provide an accessible launch site for most users. For steeper shores, specially designed accessible boat launches provide universally accessible water access.

A good launch site provides safe access away from potential conflicts, and is usable at a variety of water levels. Launch sites should be designed to withstand local weather conditions, and be accessible to different types of water craft. Good launch sites are designed not to have environmental impacts such as damaging riparian habitats.

The guide ‘Prepare to Launch’, provides instructions for selecting and designing launch sites.

[<http://preparetolaunch.river-management.org/>](http://preparetolaunch.river-management.org/)

See Figure 10, Blue-way Trails, for Boat Launches and existing Blue-way Trail Routes.

NON-MOTORIZED WINTER SPORTS ENTHUSIASTS

With a lengthy season of winter weather, sports that take advantage of cold and snow are standard in Upstate New York. Popular non-motorized winter trail uses include cross-country skiing and snowshoeing. Other less frequently practiced types of non-motorized winter sports include dog sledding, snow biking (cycling, usually with a mountain bike, on snow and/or ice), skibobbing (using a bicycle-type frame attached to skis instead of wheels) and skijoring (cross-country skiers pulled by dogs).

Winter trail uses are generally physically demanding, requiring endurance and skill. Winter sports enthusiasts can often utilize hiking, biking, equestrian, or multi-use trails if there is 6” or more snow.



Cross country ski trails are designed specifically for skiing and are often a system of looped trails of varying difficulty over rolling terrain in a park-like setting. Other winter uses are often prohibited along designated ski trails unless there is space alongside the ski tracks for the additional use. Ski trails are, however, often compatible with a variety of summer uses. Many formal ski trails are groomed for skiers while other trails are designed for backcountry skiing without mechanized grooming. Narrow ski trails often restrict users to traveling in only one direction from the trailhead while wider ski trails are often groomed with two sets of tracks for two-way traffic. Cross country ski trails are often rated to signify their comparative level of difficulty.

Information on winter sports compiled from the NY Statewide Trails Plan, 2010 and the NJ Trails Plan Update, 2008

SNOWMOBILERS

There are sometimes restrictions that prohibit snowmobiles on trails that receive federal funding except through the Recreational Trails Program. Where permitted, snowmobiles can be used on trails with 6 inches of snow with minimal damage to trails.

“Trails should be at least 8 to 10 feet wide to accommodate one-way traffic. For two-way traffic, trail width should be at least 12 to 14 feet. As motorized users travel at much greater speeds than other users, the trail should be free of obstacles and provide good sight lines with a minimum sight distance of 400 feet. Branches and other debris should be cleared across at least 2 feet on each side of the trail with a 10-foot vertical clearance; be sure to factor in anticipated snow levels. If the trail features bridges or tunnels, they must be at least 8 feet wide with a minimum carrying capacity of 5 tons. Intersections can be dangerous for these users, so it’s best to double the trail width at intersections to improve maneuverability where possible” (Rails to Trails Conservancy).

<https://www.railstotrails.org/build-trails/trail-building-toolbox/trail-building-and-design/designing-for-user-type>

EQUESTRIANS

According to Rails to Trails Conservancy “Many trails prohibit equestrian use, fearing conflicts with other users and damage to the trail surface. However, with proper design, a multi-use trail can accommodate equestrians while minimizing user conflicts”.

Equestrians tend to prefer dirt trails to hard surface or gravel trails. Trails should be at least 5 feet wide. Equestrians require more vertical clearance than most other trail users, at least 10 feet, and sight distance should be 100 feet or more.

Some horses may be uncomfortable crossing bridges. Providing mounting blocks on either end of bridges allows equestrians to dismount and lead horses across.



The findings of this study demonstrate that there is great diversity in the operating characteristics of various road and trail user types. AASHTO's design bicycle length of 6 feet and width of 30 inches were adequate for the majority of observed users. However, bicycle trailers and recumbent bicycles exceeded the design length. Power wheelchairs exceeded the design width. The recommended two-way trail width of 10 feet gave most users traveling single-file in opposite directions enough room to pass each other, though some only barely. The recommended two-way trail width of 10 feet was not wide enough for many user types to complete a three-point turn. The results of this research are valuable in determining how to better accommodate emerging user groups.

POTENTIAL AREAS OF CONFLICT BETWEEN USERS

Multi-use trails, when they are well designed, carefully maintained, and effectively managed, are a significant community resource. However, trails can have a number of challenges, which can be addressed by physical design and management responses. Potential conflicts within the countywide trail system include those between different types of trail users, between motorists and trail users at road crossings, and between trail users and property owners. Appendix B discusses ways to manage these potential conflicts.

TRAIL ORGANIZATIONS AND POTENTIAL PARTNERS

There are numerous trail related organizations in and around Cattaraugus County. These organizations typically focus on individual trails or specific trail uses. Each of these organizations is a potential resource for the Cattaraugus County Countywide Trail System. Table 10 includes a list of trail organizations and potential partners. Please see Section 7.7 for recommendations for trail organization collaboration.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Table 10: Trail Organizations and Potential Partners

Organization Type	Name	Website
Hiking and Multiuse	Finger Lakes Trail Conference	http://www.fingerlakestrail.org/
	North Country Trail Association	https://northcountrytrail.org/
	Genesee Valley Greenway	http://fogvg.org/
	Pat McGee Trail	http://enchantedmountains.com/trails/pat-mcgee-trail
	The Ellicottville-Great Valley (EVGv) Trail Committee	http://www.ellicottvilleny.com/directory/evgv-ellcottville-great-valley-trail/
	Allegany Trails, Inc.	no website
	Erie-Cattaraugus Rail Trail	http://www.ecattrail.org/
	Limestone-Carolton ad hoc. Trail Group	no website
	Pennsy Trail Group	no website
	North Olean Trail Group	https://groups.yahoo.com/neo/groups/olean_area_hiking/info
	Tuna Valley Trail Association	http://www.tunavalleytrail.com/about.html
Cycling	WNY Mountain Bicycling Association	http://wnymba.org/
	Niagara Frontier Bicycle Club	https://nfbc.com/
Equestrian	Cattaraugus County Equine Advisory Committee	http://www.cattco.org/equestrian
	Cattaraugus/Chautauqua Chapter of the NYS Horse Council	http://nyshc.org/
	Little Valley Riders Club	http://littlevalleyridersclub.webs.com/
	Creekside Roundup	http://www.franklinvilleny.org/creekside-roundup.php
	Chautauqua County Trail Riders	https://www.facebook.com/groups/160816647296302/

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Organization Type	Name	Website
Snowmobile	NYS Snowmobile Association	https://membership.nysnowmobiler.com/regions/4
	Western New York Snowmobile Club of Boston	http://www.bostontrails.com/index.html
	Ashford Snowmobile Club, Inc.	<i>no website</i>
	Elibomwons Snowmobile Club	https://www.facebook.com/ElibomwonsSnowmobileClub
	Enchanted Mountains Border Riders	http://www.enchantedmountainsborderriders.com/
	Franklinville Snow Sled Club, Inc.	http://franklinvillesnowmobileclub.com/
	Portville Snowmobile Club	http://portvillesnowmobileclub.org/
	Snow Bounders, Inc.	http://www.snowbounders.com/
	Southern Tier Snow Drifters	https://www.facebook.com/Southern-Tier-Snow-Drifters
	TriCounty Drift Hoppers	https://www.facebook.com/TriCountyDriftHoppers
	Allegany County Federation of Snowmobilers	http://www.acfsnow.org/links/chapters.html
	Chautauqua County Federation of Snowmobile Clubs	http://www.tourchautauqua.com/Snowmobiling.aspx
	Erie County Federation of Snowmobile Clubs	https://www.facebook.com/Erie-County-Federation-of-Snowmobile-Clubs-891602897568697/



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Organization Type	Name	Website
Government	Seneca Nation of Indians	https://sni.org/
	Allegheny National Forest	http://visitanf.com/allegheny-reservoir/
	Allegany State Park	https://parks.ny.gov/parks/73/details.aspx
	New York State Department of Environmental Conservation	http://www.dec.ny.gov/
	Cattaraugus/Little Valley School District	http://www.cattlv.wnyric.org/
	City of Olean	http://www.cityofolean.org/
	Leon Historical Society	http://leonhistoricalsociety.webs.com/
	Village of Allegany	http://www.allegany.org/index.php?Village%20of%20Allegany
Other	Allegheny River Valley Blue Trail	<i>no website</i>
	Allegany Trails, Inc.	<i>no website</i>
	Griffis Sculpture Park	http://griffispark.org/griffis-sculpture-park/
	Nannen Arboretum	http://www.nannenarboretum.org/
	Pfeiffer Nature Center	http://pfeiffernaturecenter.org/nature-blog/
	Portville Trails Association	https://www.facebook.com/Portville-Trails-Association-728829533826151/?hc_ref=PAGES_TIMELINE
	Portville Planning Commission/Board	http://portvilleny.net/html/tplngbd.html
	Zoar Valley Paddling Club	http://www.zoarvalleypaddlingclub.org/
	Cattaraugus Local Development Corporation	http://cattldc.blogspot.com/



6.0 COMMUNITY INPUT



Planning of any kind cannot be done in a vacuum, and must be informed by local residents. New York State has identified principles to guide community planning processes, which states that planning should be continuous, comprehensive, participatory, and coordinated. Citizen participation is not just a requirement, but a critical element of a successful plan. See Table 2 for a list of meetings that were a part of this project.

The planning process for this study included outreach to both the general public and key stakeholders. A project advisory committee, comprised of representatives from Cattaraugus County and local trail organizations, provided continuity and study oversight.

Meeting summaries and agendas are provided in Appendix C.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



PROJECT ADVISORY MEETINGS

WORKSHOP #1

Location - Cattaraugus County Center- Little Valley, NY

Date - Thursday November 17, 2016

Time - 7:00 PM

COMPILATION OF PUBLIC INPUT

The first Public Input Workshop was held on Thursday, November 17th, 2016 at the Cattaraugus County Center in the Town of Little Valley from 7:00 pm to 9:00 pm. This meeting launched the planning process for the Cattaraugus County Countywide Trail System Plan. The team presented an overview of example projects and introduced the community feedback tools for the project, including the online survey, crowdsourcing applications and mapillary website. The team outlined the planning process and provided a preliminary schedule.

PROJECT TEAM INTRODUCTIONS

<i>Name</i>	<i>Organization</i>
Jim Allen	WNY Mountain Bicycling Association
Ben Anderson	Seneca Nation of Indians
Len Brainard	Cattaraugus County Equine Advisory Committee
Josh Bridge	USFS Allegheny National Forest
Bill Dibble	Allegany Trails, Inc.
John Eaton	Portville Trails Association
Holly Fischer	River Trail/Portville Planning
Bob Fischer	River Trail/Portville Planning
Barb George	Creekside Roundup
Carl George	Creekside Roundup
Joe Langianese	Allegheny National Forest
David Paradowski	NYSDEC
Jon Sundquist	WNY Mountain Bicycling Association

CATTARAUGUS COUNTY
COUNTYWIDE TRAIL SYSTEM PLAN



Missy Whittington

Cattaraugus/Chautauqua Chapter/NYS Horse Council

Quinn Wright

Finger Lakes Trail Conference

Consultant: Tom Robinson

Barton & Loguidice

Guest: Rick Miller

Olean Times Herald

Cattaraugus County Dept. of Economic Development, Planning & Tourism staff:

Crystal Abers, Paul Bishop, Ginger Malak, Kate O'Stricker, Becky Smith

GENERAL COMMENTS

Work with DEC.

Healthy aspect, attract people to the County and have businesses prosper and publicize their trails.

Tremendous amount of data; working with DEC; good handle on inventory of our trails; funding opportunities.

Connectivity- snowmobile groups have connected the two counties with a bridge across the dredge; continuity of signage for tourism; trails on DEC lands; PA has trail towns; assessment of how the Committee can get ready for accommodating trails.

Connectivity; Ellicottville to Little Valley to Salamanca; State Park snowmobile to PA; Letchworth to Allegany State Park; Allegheny River development should be pushed east...through PA.

Connectivity; capitalize on tourism potential; preserving cultural and heritage; snowmobile access to South Salamanca across Allegheny; ATV trails; find funding; PA has had success in this.

Overview of the Finger Lakes/North Country Trail; 10% in Cattaraugus County (most certified trails); bridges are important (across Allegheny River on Seneca Nation lands).

Looking for ideas; how do you maintain the trails you have?

Connectivity; over 1,000 miles of trails; looking at regionalism; compliment not compete; ATV trails (Hatfield and McCoy Trail).

All types of trails; no ATV trails, except for accessibility of the disabled; sustainability, connectivity, safety; date limitations; maintained by volunteers; standardized kiosks; registration and trails use that they don't have a handle on.



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Allegheny River Plan; working on ADA compliant boat launch; Pfeiffer Nature Trails have many trails; great destinations as a part of the trails promotion.

Southeast corner of the County.

WORKSHOP #2

Location - Cattaraugus County Center- Little Valley, NY

Date - Thursday, March 16, 2017

Time - 7:00 PM

COMPILATION OF PUBLIC INPUT

The second Public Input Workshop was held on Thursday, March 17, 2017 at the Cattaraugus County Center in the Town of Little Valley from 7:00 pm to 9:00 pm. The team presented an overview of existing conditions within the County including topography, soils, wetlands and land cover, park land and preliminary maps of the existing trail system.

The team solicited comments on the County's current trail needs and ideas to enhance the trail system. An excellent turnout of nearly 30 attendees signed-in allowing the project team to receive valuable information regarding concerns and ideas.

PROJECT TEAM INTRODUCTIONS

Name	Organization
Jim Allen	WNY Mountain Bicycling Association
Len Brainard	Cattaraugus County Equine Advisory Committee
Luke Brainard	Cattaraugus County Equine Advisory Committee
Josh Bridge	USFS Allegheny National Forest
Julie Chartreau	Town of Carrollton
Jody Clark	Seneca Nation of Indians
Patrick Dove	NYS Parks/Allegany State Park
John Eaton	Portville Trails Association
Kori Eaker	Cattaraugus County Equine Advisory Committee
Holly Fischer	River Trail/Portville Planning

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Bob Fischer	River Trail/Portville Planning
Bev Jones	Pfeiffer Nature Center
Gerri Jimerson	Seneca Nation of Indians
Rick LeFeber	Cattaraugus Local Development Corporation
Tom Livak	NYS Parks/Allegany State Park
Anne Lynch	Chautauqua County Trail Riders
Linda Murphy	Cattaraugus County Equine Advisory Committee
Melinda Nichols	Cattaraugus County Equine Advisory Committee
Phil Nickerson	Chautauqua County Trail Riders
Ainsley Smith	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Veronica Weber	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Quinn Wright	Finger Lakes Trail Conference

Consultant:

Tom Robinson	Barton & Loguidice
Nicole Cleary	Barton & Loguidice

Cattaraugus Co. Dept. of Economic Development, Planning & Tourism

Ginger Malak, Jean Davis, Becky Smith, Jeremy Knab

GENERAL COMMENTS

Difficulty of rating trails.

The Mountain Biking Association does not build mountain biking trails, rather all are multi-use trails. Labeling trails may send the message of exclusion to people rather than inclusive. Label all trails as shared use and include exclusions if necessary.

Perhaps look at the user difficulty or constraints that the trail might pose.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN

Maps change over time, will the County be able to update the maps as new information comes in. The County Office of Real Property prepares trail maps for the Department of Economic Development, Planning and Tourism now and is participating in this project. They have already provided Barton & Loguidice with maps and data.

Implementation/Challenges

Volunteers are really stressed. Volunteers cannot be the only people to implement projects. Volunteers are only one piece of the puzzle.

How can the recommendations be realistically implemented?

The first step is to create a vision.

Is the system maintainable?

Present criteria that can be used intelligently.

What volunteers do we have and how can we tap into additional volunteers?

Seek leadership to implement the Plan.

Leadership at the municipal level. Each community must be stewards for implementing the trail system.

Public support is important to show leadership that the system is supported.

How do you measure the number of people using trails or coming to the area? Need a measurement tool to collect the stats for the area. How do you capture where visitors are coming from.

There are different sources to measure; pieces of information put together. With smart phones it is easier to track where they are.

One of the Tourism Promotion Agencies (TPA) in NYS was able to provide information on where visitors originated. The Department of Economic Development, Planning and Tourism is the designated TPA, but does not have that information.

WORKSHOP #3

Location - Cattaraugus County Center- Little Valley, NY

Date - Thursday May 18, 2017

Time - 7:00 PM



COMPILATION OF PUBLIC INPUT

The third Public Input Workshop was held on Thursday, May 18th, 2017 at the Cattaraugus County Center in the Town of Little Valley from 7:00 pm to 9:00 pm. The team presented the proposed outline for the report, initial survey feedback, and updated analysis and trail maps. The team also outlined preliminary recommendations including stronger connections to the regional trail system, expanding the allowed uses on existing trails, and improved signage and mapping.

PROJECT TEAM INTRODUCTIONS

<i>Name</i>	<i>Organization</i>
Len Brainard	Cattaraugus County Equine Advisory Committee
Luke Brainard	Cattaraugus County Equine Advisory Committee
Amanda Dackowsky	Cattaraugus County Equine Advisory Committee
John Eaton	Portville Trails Association
Kori Eaker	Cattaraugus County Equine Advisory Committee
Bob Fischer	River Trail/Portville Planning
Barb George	Creekside Roundup
Carl George	Creekside Roundup
Vicki Schmidt	Pfeiffer Nature Center
Rick LeFeber	Cattaraugus Local Development Corporation
Tom Livak	NYS Parks/Allegany State Park
Holly	Cattaraugus County Equine Advisory Committee
Ainsley Smith	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Becky Smith	Cattaraugus County Equine Advisory Committee
Jon Sundquist	WNY Mountain Bicycling Association
Missy Whittington	Cattaraugus/Chautauqua Chapter/NYS Horse Council
Quinn Wright	Finger Lakes Trail Conference

Consultant: Tom Robinson Barton & Loguidice



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Cattaraugus Co. Dept. of Economic Development, Planning & Tourism staff:

Jean Davis, Ginger Malak, Kate O'Stricker

GENERAL COMMENTS

Many dollars are leaving NYS to use PA ATV trails.

Connecting towns, service businesses, etc.

How many miles are abandon rails in the County? Need investment in bridges n the old rail ways; would prefer a loop for equestrian trails

All users are looking for loops – easier to do because you start at one access and come back to the same access

There is a business opportunity in having an access point at the start and one at the end – bringing equipment (i.e. horse trailers) from one point the other. a connection can be getting the trails to the community so they can get the benefits

WORKSHOP #4

Location - Cattaraugus County Center - Little Valley, NY

Date - Thursday October 5, 2017

Time - 7:00 PM

COMPILATION OF PUBLIC INPUT

The fourth Public Input Workshop was held on Thursday, October 5th, 2017 at the Cattaraugus County Center in the Town of Little Valley from 7:00 pm to 9:00 pm.

PROJECT TEAM INTRODUCTIONS

<i>Name</i>	<i>Organization</i>
Len Brainard	Cattaraugus County Equine Advisory Committee
Amanda Dackowsky	Cattaraugus County Equine Advisory Committee
Bob Fischer	River Trail/Portville Planning
Holly Fischer	River Trail/ Portville

CATTARAUGUS COUNTY
COUNTYWIDE TRAIL SYSTEM PLAN



Barb George	Creekside Roundup
Carl George	Creekside Roundup
Melinda Nichols	Little Valley Riders Club
Rick LeFeber	Cattaraugus Local Development Corporation
Tom Livak	NYS Parks/Allegany State Park
Quinn Wright	Finger Lakes Trail Conference
Jim Allen	WNY Mountain Bicycling Association
Rick Miller	Olean Times Herald

Consultant: Tom Robinson Barton & Loguidice

Cattaraugus Co. Dept. of Economic Development, Planning & Tourism staff:

Jeremy Knab, Kate O'Stricker

GENERAL COMMENTS

Horse trailers have high vertical clearances and vary widely in size.

Cattaraugus County needs more equestrian services, including outfitters and equestrian veterinarians.

Loop trails are great for dispersing impacts.

Equestrian group categorizes trails as improved and non-maintained.

Winter events are desirable but difficult to plan due to unpredictable weather patterns, dog sled races are an example.

Privately owned trails change frequently, presents mapping challenges.

Digital, online application mapping desirable.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



SURVEYS

As part of the Cattaraugus County Countywide Trail System Plan community members were surveyed to gather information about current use of the existing trails, potential improvements to the trail system, and barriers to accessing the trails. The survey contained basic demographic information, questions about current trail use, and questions about issues with the existing trails.

Over 440 surveys have been completed to date. The survey results are listed below.

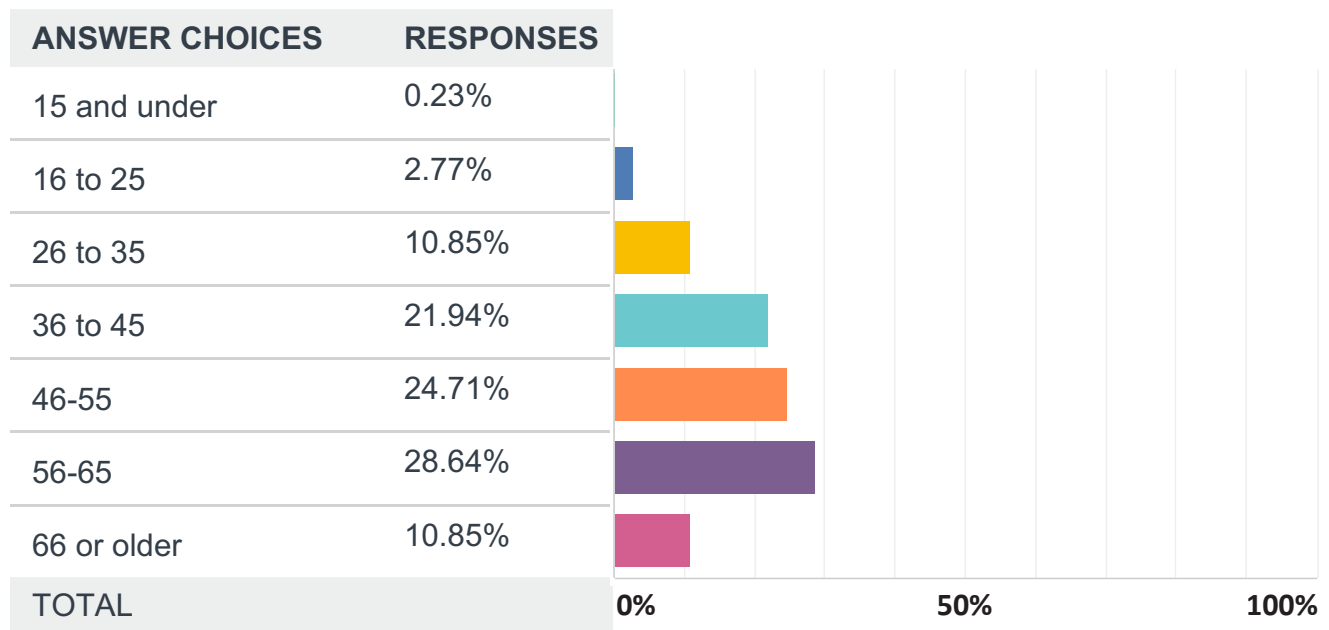


Q1 What is your zip code?

Answered: 434 Skipped: 6

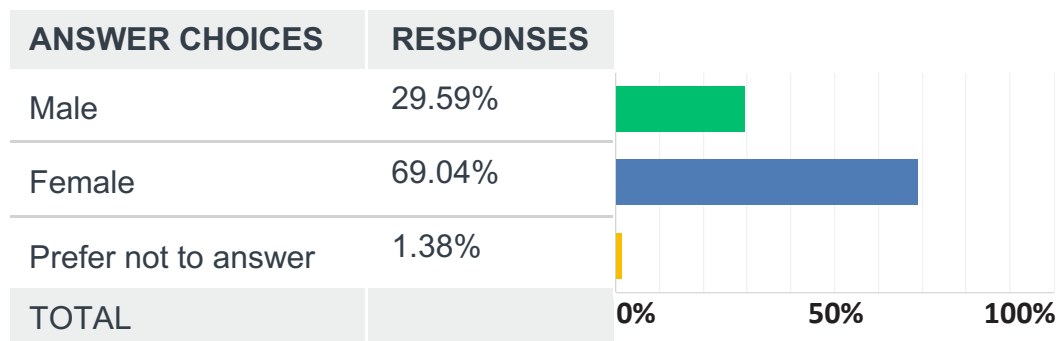
Q2 Please identify your age group.

Answered: 433 Skipped: 7



Q3 What is your gender?

Answered: 436 Skipped: 4



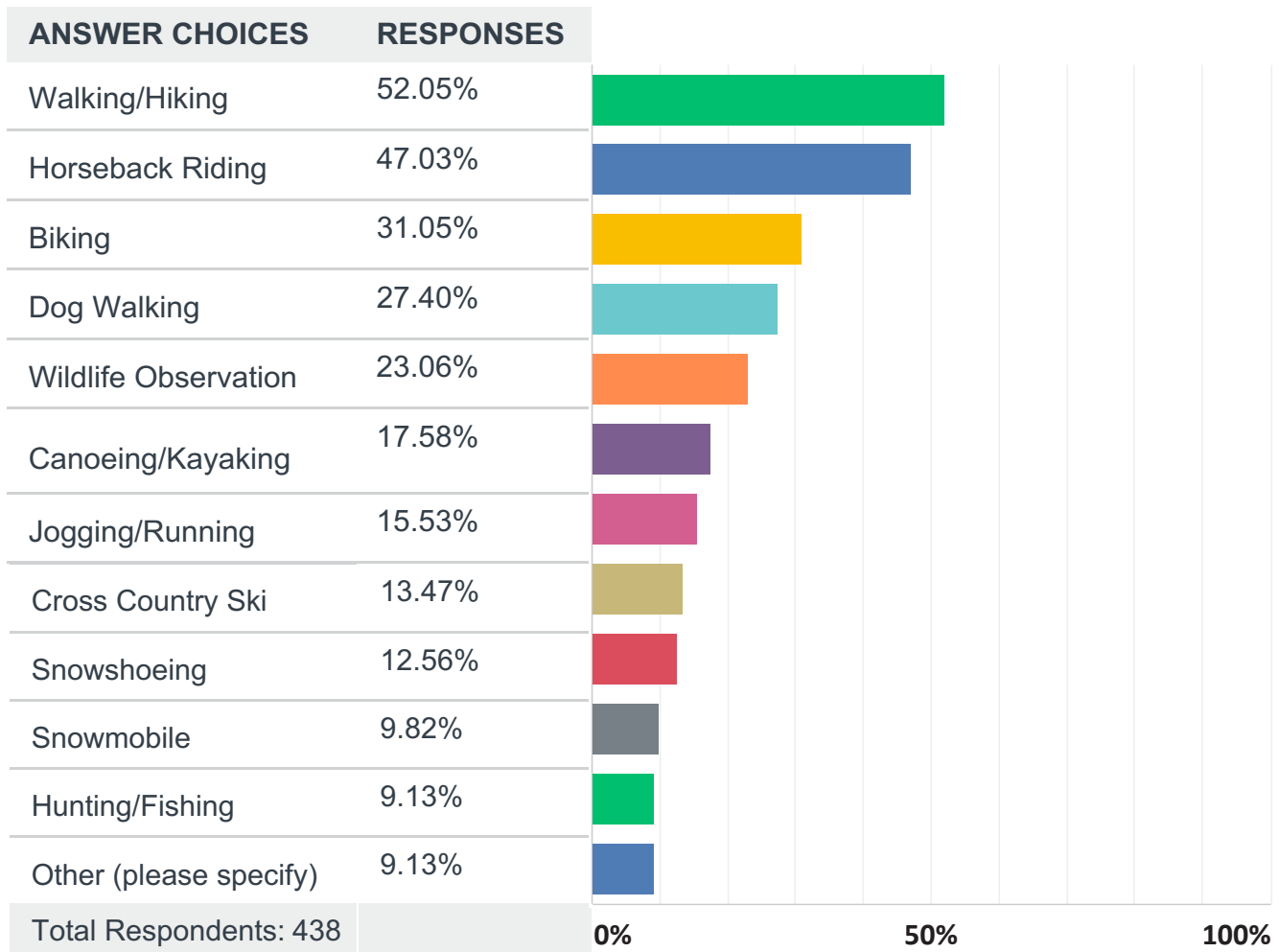


CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Q4 What are your primary activities on the trail network? Select all that apply.

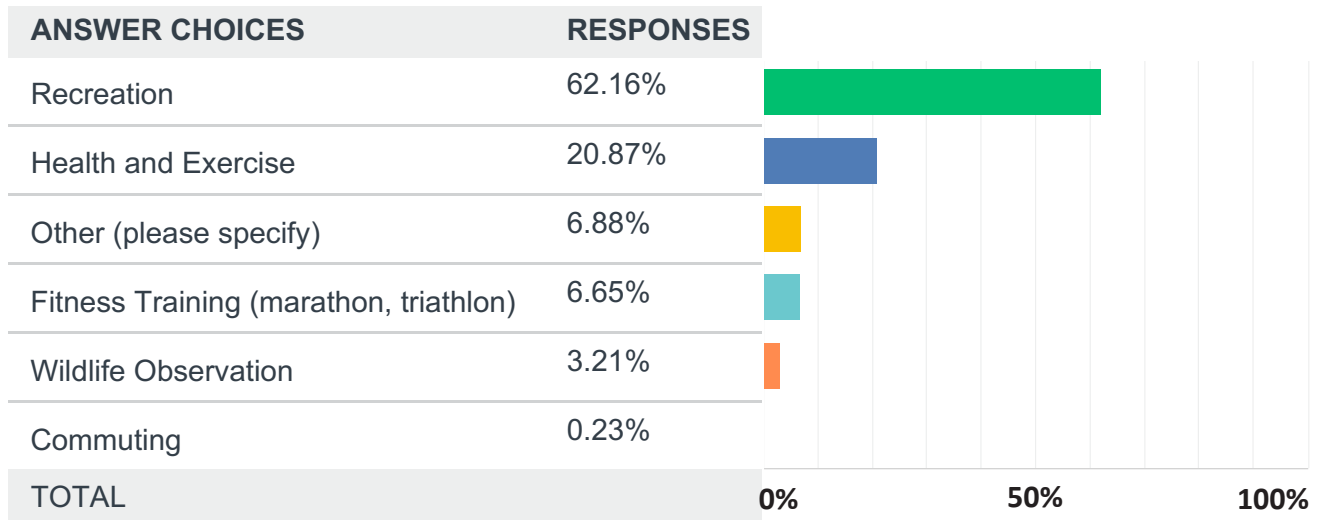
Answered: 438 Skipped: 2





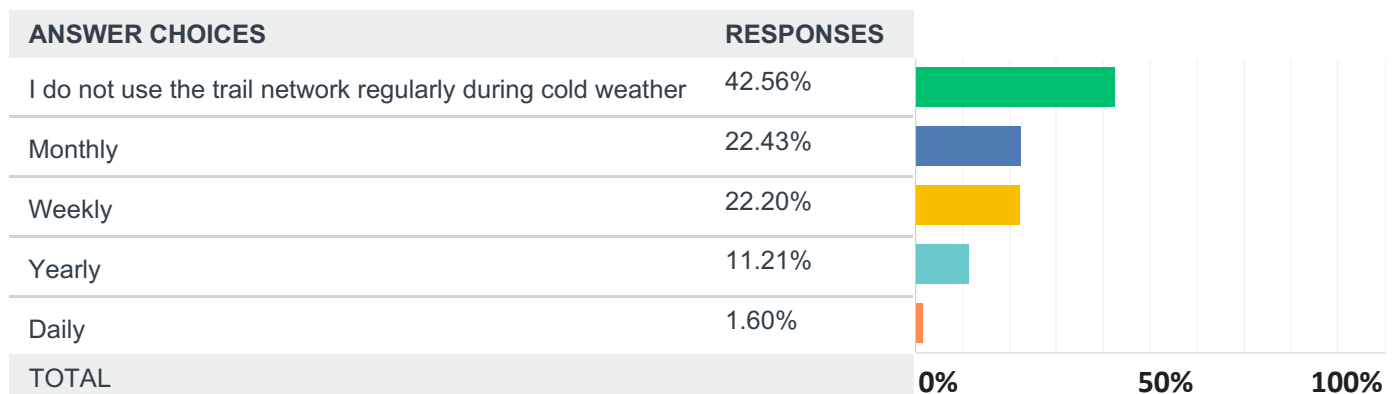
Q5 Would you consider your primary use of the trail network to be for: (Select one response.)

Answered: 436 Skipped: 4



Q6 How often do you use the trail network during cold weather? Select one response.

Answered: 437 Skipped: 3



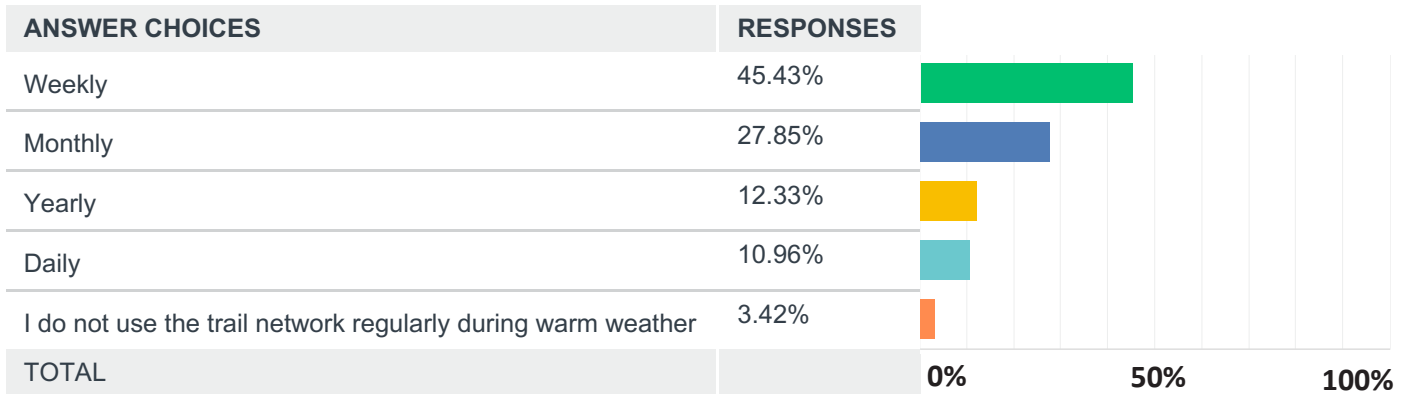


CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



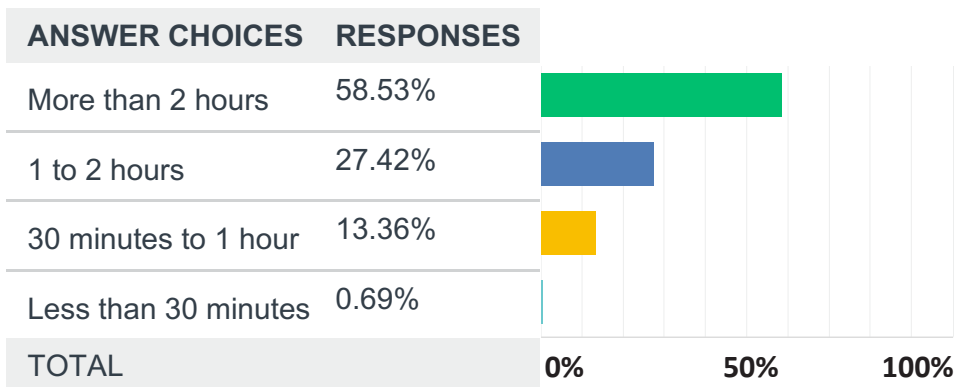
Q7 How often do you use the trail network during warm weather? Select one response.

Answered: 438 Skipped: 2



Q8 How much time do you generally spend on the trail network per visit? Select one response.

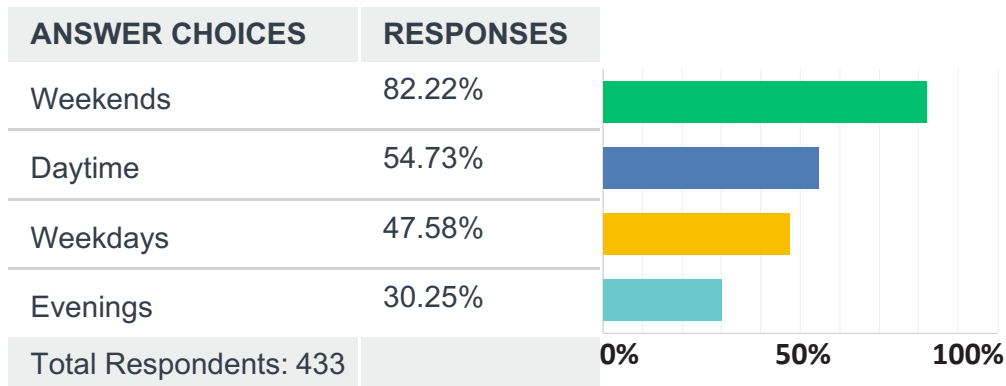
Answered: 434 Skipped: 6





Q9 Generally, when do you use the trail network? Select all that apply.

Answered: 433 Skipped: 7



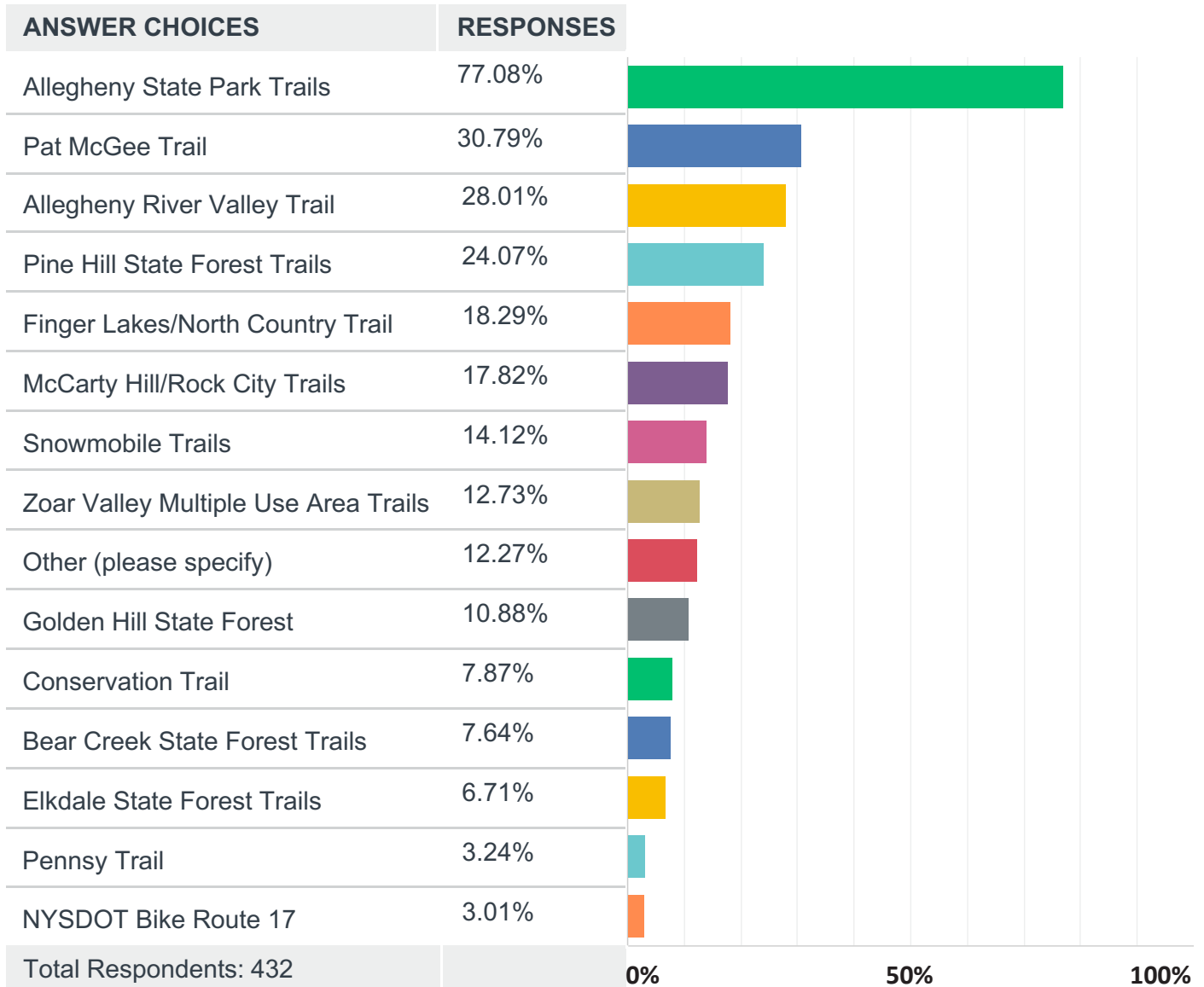


CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Q10 Which of the following trails do you use most often? Select all that apply.

Answered: 432 Skipped: 8





Q11 What segments of the trail network do you use most often within Cattaraugus County? Please identify a maximum of 5 trails.

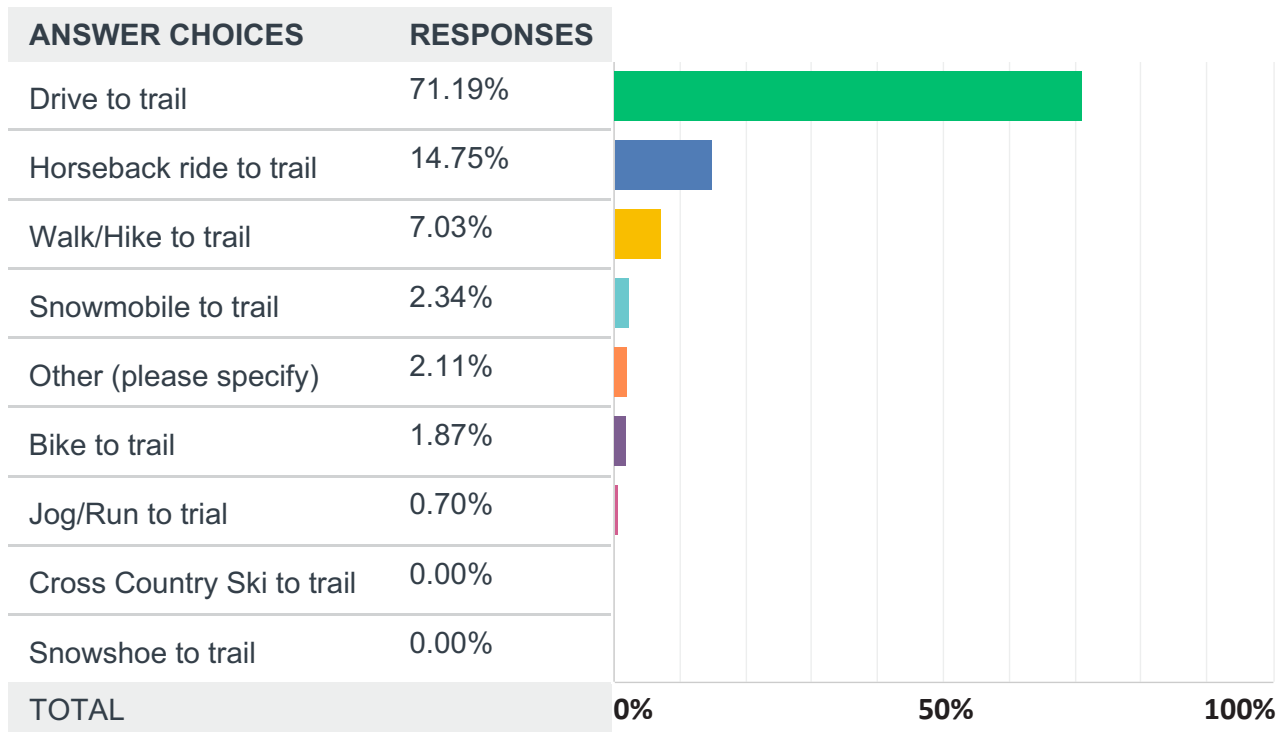
Answered: 193 Skipped: 247

Q12 Which trailheads or trail access points do you generally use when you visit the trail network? Please identify a maximum of 5 access points.

Answered: 169 Skipped: 271

Q13 How do you generally access the trail network? Select one response.

Answered: 427 Skipped: 13



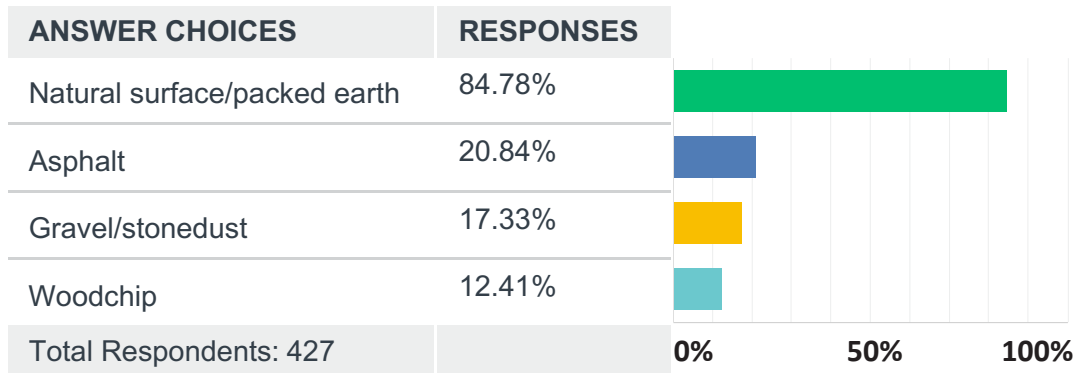


CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



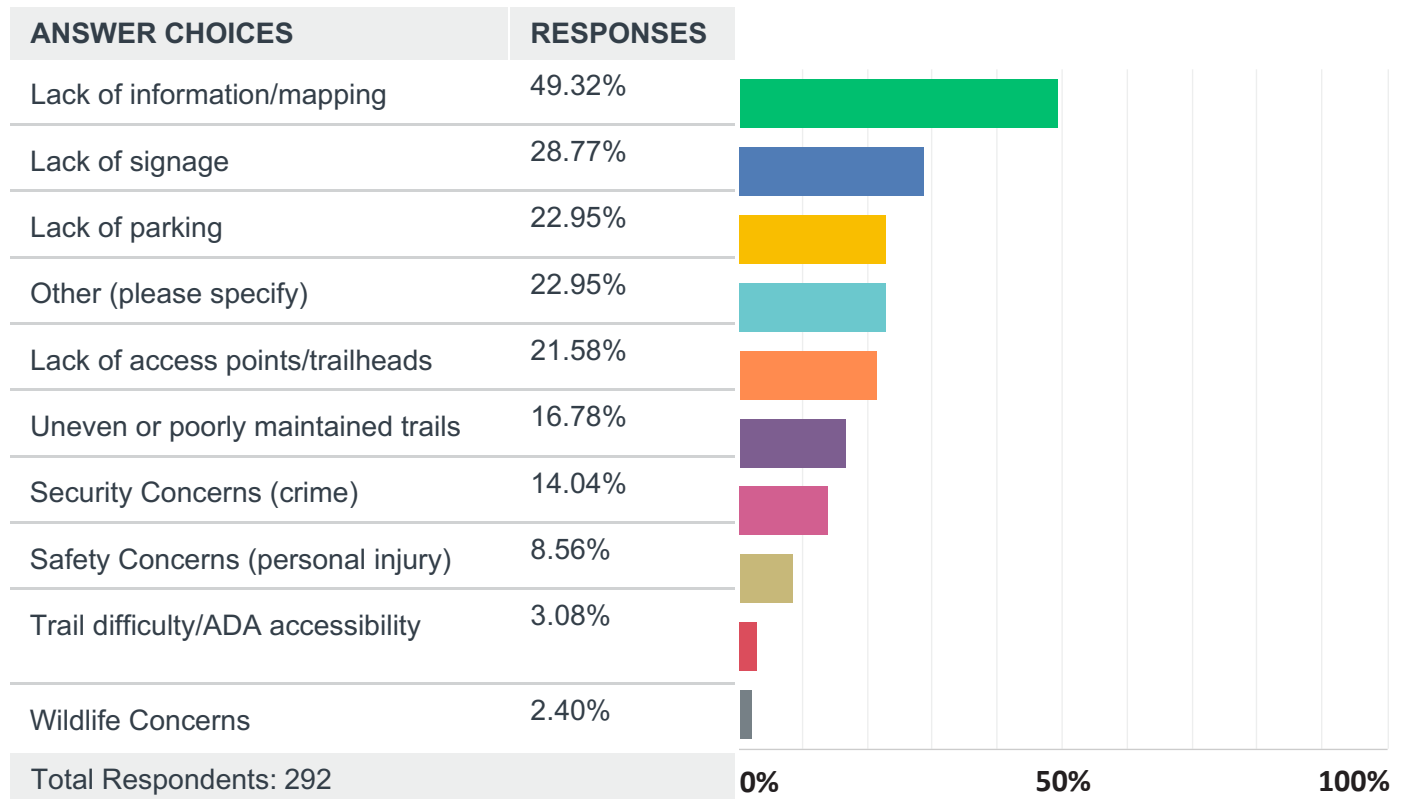
Q14 What is your preferred trail surface? Select all that apply.

Answered: 427 Skipped: 13



Q15 Are there barriers that prevent you from accessing the trail network? Select all that apply.

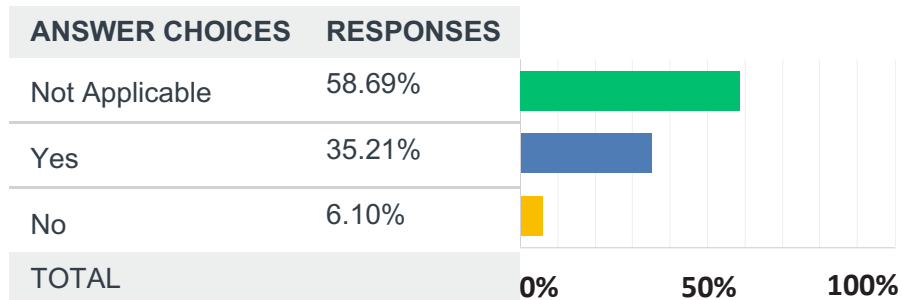
Answered: 292 Skipped: 148





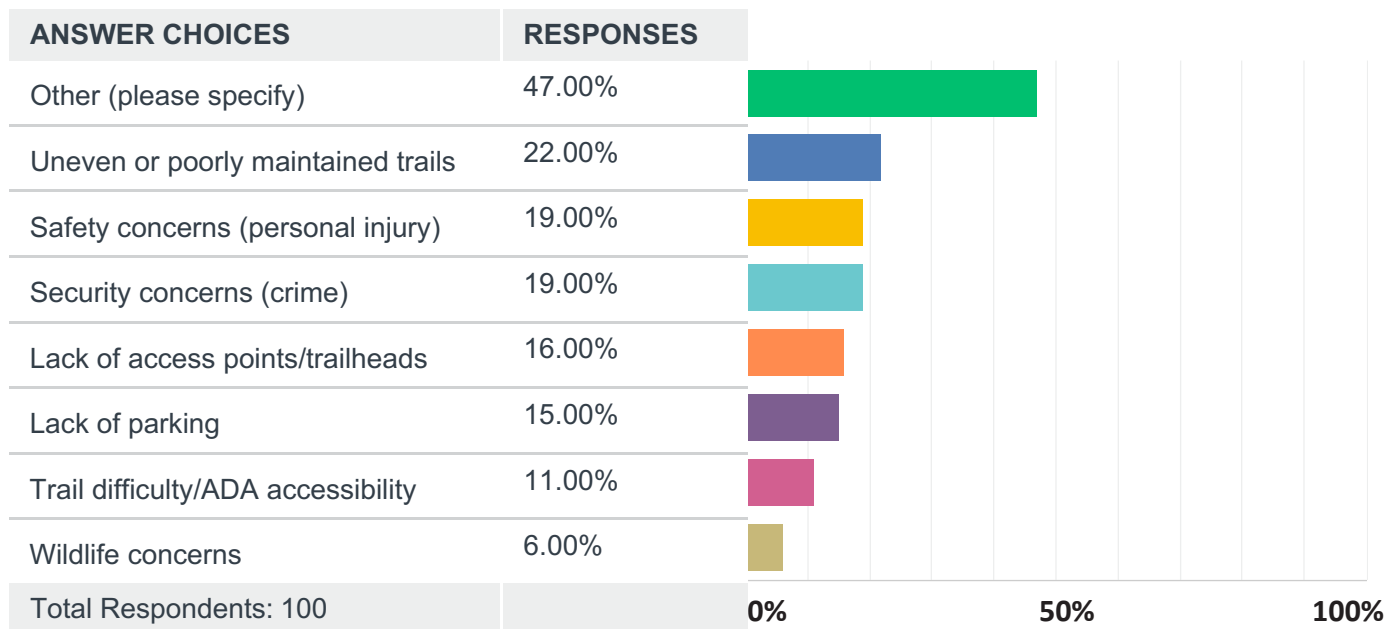
Q16 If you have kids, do you bring them with you on the trails? Please select one response.

Answered: 426 Skipped: 14



Q17 Are there barriers to bringing kids on the trails? Select all that apply.

Answered: 100 Skipped: 340



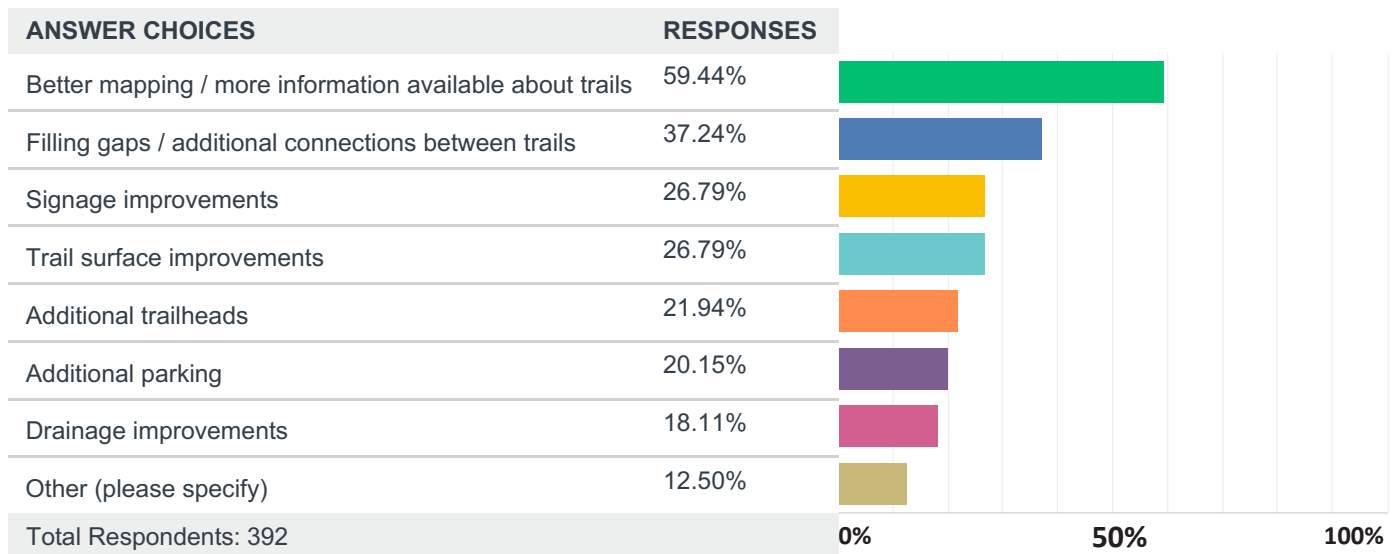


CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



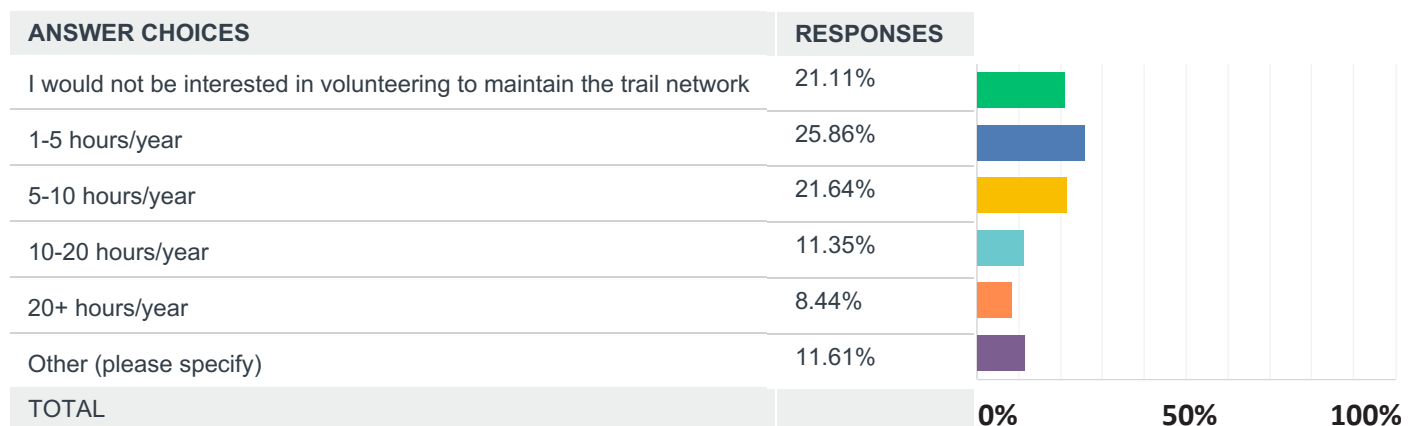
Q18 In your opinion, what are the most important improvements that could be made to the existing trail network? Please select up to three choices.

Answered: 392 Skipped: 48



Q19 Would you consider volunteering to help maintain the trail network? If so, how much time would you be interested in volunteering?

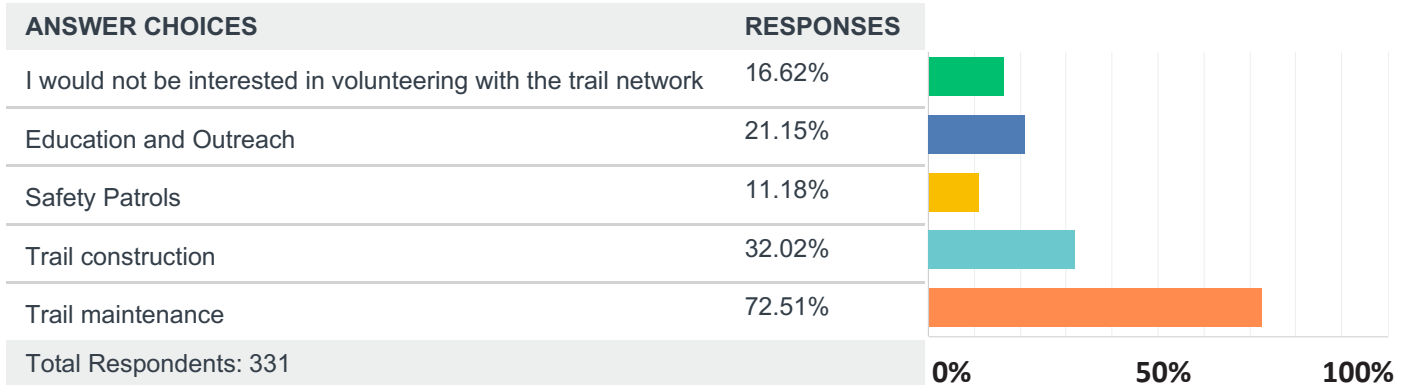
Answered: 379 Skipped: 61





Q20 If you would be interested in volunteering with the trail network, what sort of projects would interest you?

Answered: 331 Skipped: 109



Q20 Please identify any other concerns or recommendations for the trail network:

Answered: 90 Skipped: 350

Education and Outreach Remain Existing Trails Race Maps Section
Community Loss Riding Natural Access Event
Connecting Larger County Horseback Love
Pat McGee should be Paved Live Equine Biking Trails Litter
Maintain Recreational Funding Walking Allegheny River Volunteer



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



CROWDSOURCING

Several web based crowdsourcing applications were designed for the Cattaraugus County Countywide Trail System Plan. The public is able to use these applications to map information for the Cattaraugus County Trail System. These applications are smart phone compatible so users can add information while they are outside enjoying the trail system.

The information is organized in an online mapping tool accessible by Cattaraugus County. The County can use this tool to sort through all of the data provided by county residents, see the location of each suggestion, find patterns in the information, and address possible issues.

A description of the Crowdsourcing Applications is included below.

TRAIL CONCERNS

With this website, users can map problems along existing trails, such as erosion or poorly drained areas, and upload pictures of the issues taken with their phones.

<http://barton.maps.arcgis.com/apps/GeoForm/index.html?appid=240f0193d4da43bf998b3421bba47f11>

TRAIL OPPORTUNITIES AND RECOMMENDATIONS

This website allows users to map opportunities for improving the trail system. Users can point out gaps in the trail system, or potential trail access points.

They can also map features that should be included in the trail system including historic locations, fishing access points, and local businesses such as restaurants, breweries, bike shops or local tourism destinations.

<http://barton.maps.arcgis.com/apps/GeoForm/index.html?appid=05f95304afe34a9e98327d46aef6ae67>

MAPILLARY

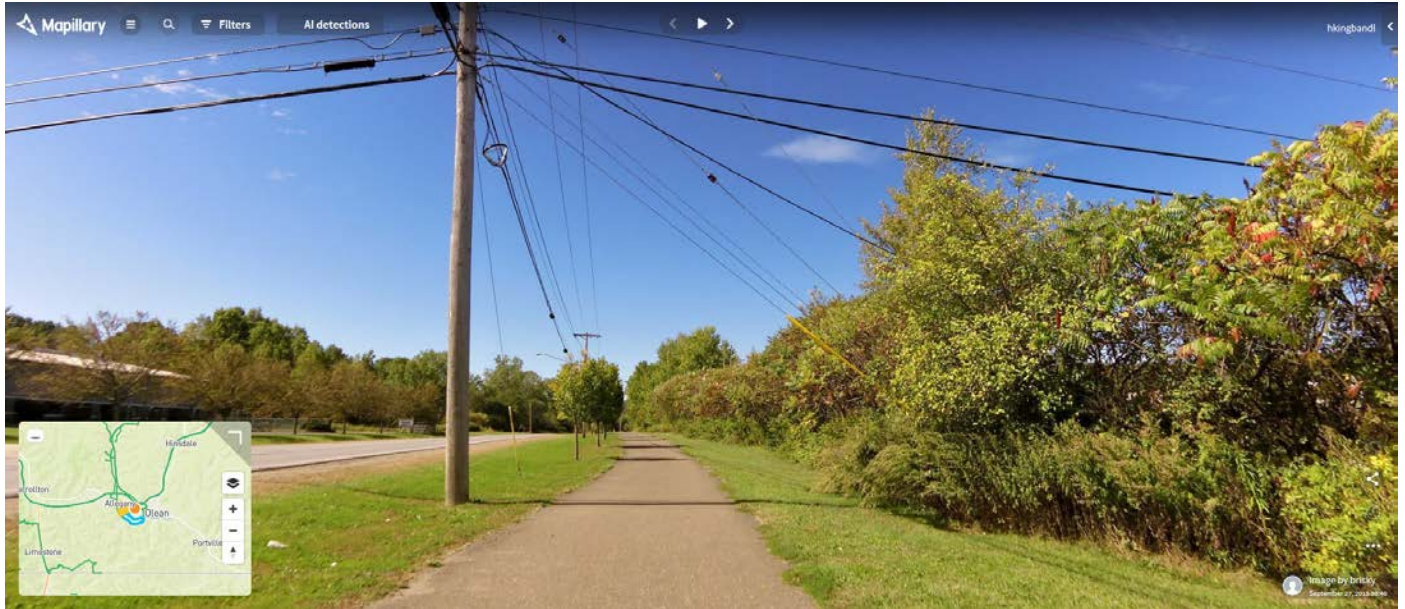
This website allows users to upload images or videos of the trails to a public collection. The images and videos are georeferenced so that other users can find pictures or videos of specific locations.

To use this website, a user needs to sign up, and download a smart phone application.

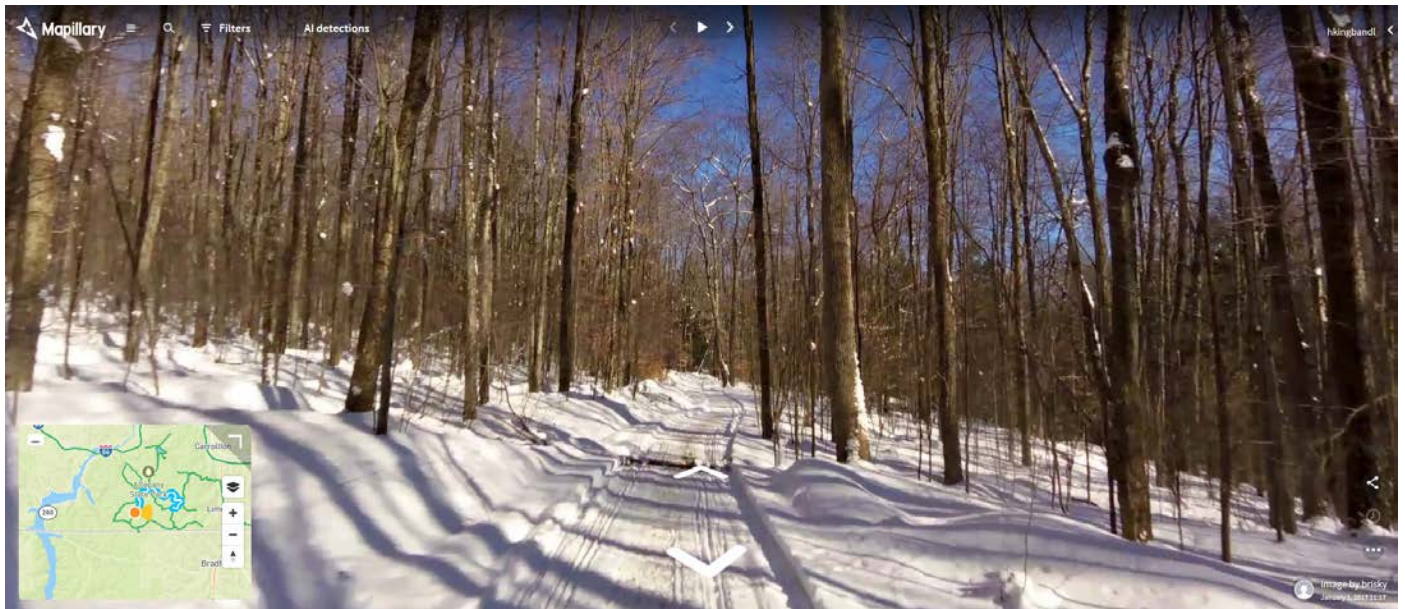
<https://www.mapillary.com/>



CATTARAUGUS COUNTY
COUNTYWIDE TRAIL SYSTEM PLAN



Mapillary Trail Image



Mapillary Trail Image



7.0 RECOMMENDATIONS



OVERVIEW

Through the process of site inventory and analysis, community input, and review of alternatives, a series of recommendations have been developed. Though each recommendation has its own unique considerations, some of the same considerations apply to every recommendation. The following are some of the factors that were considered in developing these recommendations:

- Increasing tourism and recreation opportunities within the County;
- Connecting communities within and beyond Cattaraugus County;
- Expanding and linking the County conservation network;
- Land use, topography, water and soil conditions;
- Sustainable trail design;
- Accessibility and inclusive design;
- Safety and Security- Crime Prevention through Environmental Design (CPTED);
- Operations & maintenance costs- planning & design with a view toward reducing maintenance requirements.



The recommendation section of this report is divided into the following sections:

- New trail opportunities;
- All terrain vehicles;
- Existing trail improvements;
- Trail access improvements;
- Signage, maps, marketing & events;
- Village and business development opportunities;
- Trail and event coordination.

See the Phasing section of this report for an explanation of the three phasing categories, 'priority', 'recommended', and 'possible' and for a quick reference table of all projects and project phasing.

NEW TRAIL OPPORTUNITIES

Cattaraugus County is well positioned to benefit from the regional trail system. Three major regional trails pass through the County; the Finger Lakes Trail, the North Country Trail, and the Conservation trail. All of these trails are featured in the NYS regional trail map in Figure 5. See Section 4.2 for a more detailed description of these trails.

A fourth major trail, the Genesee Valley Greenway, currently ends at the County border. The Genesee Valley Greenway starts in Rochester and will eventually extend into Cattaraugus County along an abandoned rail line. The proposed trail addition ends in the town of Hinsdale, NY, directly north of the City of Olean.

A fifth major trail, the Erie-Cattaraugus Rail Trail, is currently under development. This trail would extend from Buffalo to the northern border of Cattaraugus County along an abandoned rail line.

Making connections between these trails and communities within Cattaraugus County would strengthen the link between the Cattaraugus County Trail System and the regional trail system. This could increase tourism within the County by encouraging adventure and touring cyclists, long distance hikers, and other types of trail users who travel relatively long distances by trail.

It would also improve access to the exceptional system of loop trails within Cattaraugus County, allowing visitors and community members to access conservation area trails using active transportation. According to the Cattaraugus County Trail System survey, approximately 70% of users drove to trails, while 30% used an alternative transportation method.



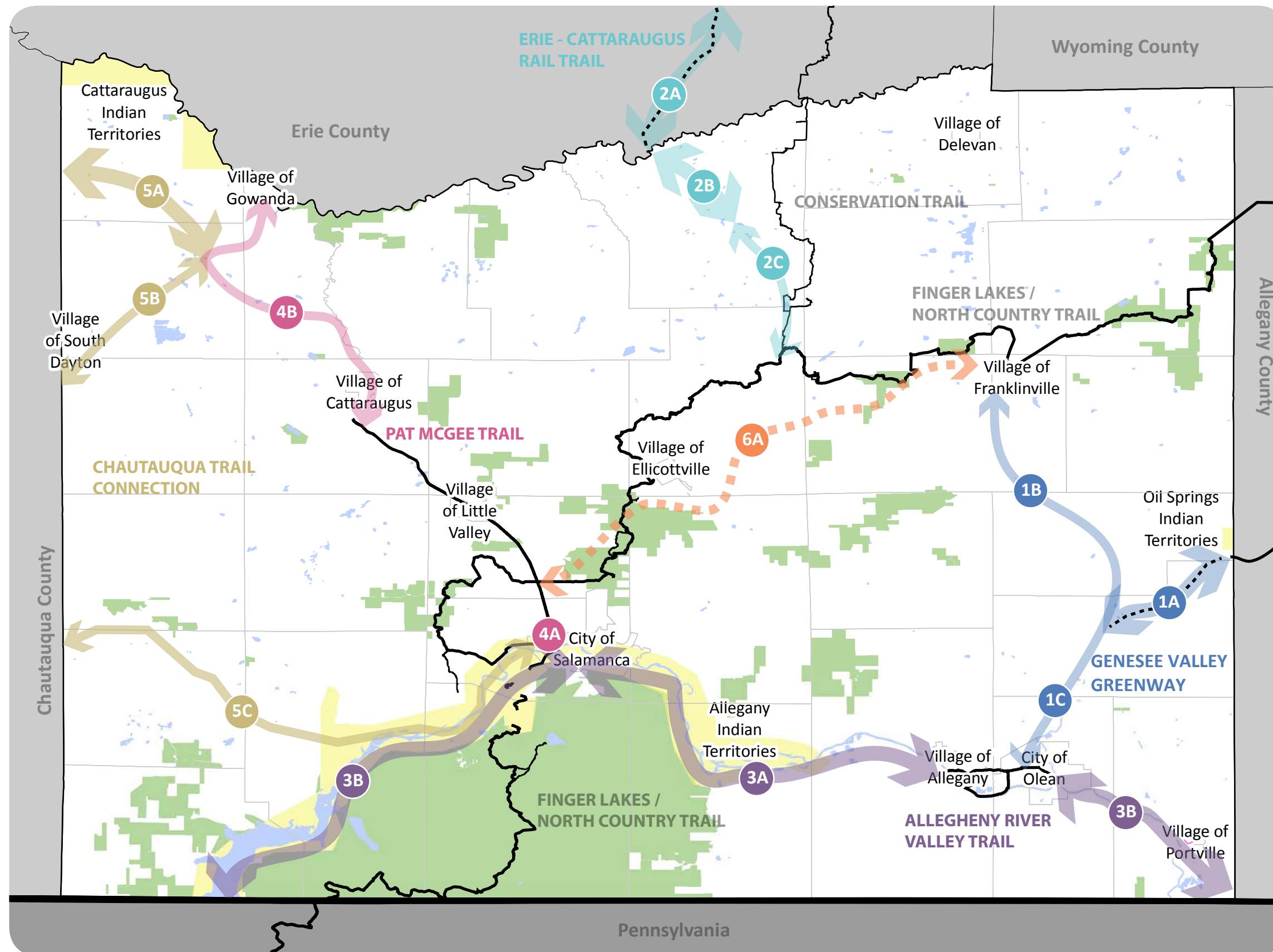
Having a network of long distance trails connecting these loop systems increases the feasibility of trail users accessing trails using active transportation and increases trail accessibility for residents with limited access to cars, including children and some senior populations.

See Trail Benefits in Section 3 for more information on the advantages of connecting to regional trails and increasing active transportation.

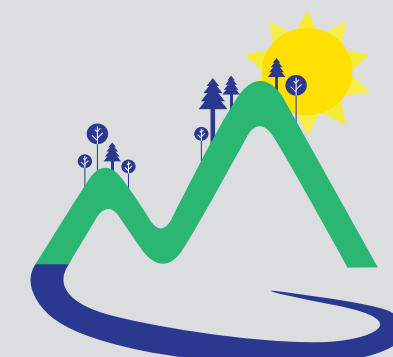
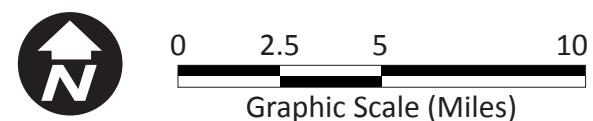
There are six recommended trail projects listed below. These projects result in key connections between major trails, population centers, and tourism destinations in order to increase recreation opportunities and attract visitors.

- Genesee Valley Greenway Connection
- Erie Cattaraugus Rail - Trail Connection
- Allegheny River Trail
- Pat McGee Trail Extension
- Chautauqua Trail Connection
- Multiuse Trail from Village of Franklinville to Pat McGee Trail

See Figure 1, Potential Regional Trail Connections, for a map of these recommendations.



Map Sources: NYS GIS Clearing House, Cattaraugus County GIS Services



**CATTARAUGUS COUNTY
TRAIL NETWORK**

**FIGURE 1
POTENTIAL REGIONAL
TRAIL CONNECTIONS**

- Existing Regional Trails
- - - Regional Trails Under Development
- ↔ Rail to Trail Opportunities
- ↔ Rail with Trail Opportunities
- ⋈ Summer Multiuse - Snowmobile Trail Opportunity
- Park Boundaries
- Seneca Nation of Indians
- 1 Genesee Valley Greenway Connection
- 2 Erie Cattaraugus Rail - Trail Connection
- 3 Allegheny River Trail
- 4 Pat McGee Trail Extension
- 5 Chautauqua Trail Connection
- 6 Franklinville- Pat McGee Trail



1. GENESEE VALLEY GREENWAY CONNECTION



The Genesee Valley Greenway is a 90 mile trail, extending from the City of Rochester, NY, to the Cattaraugus County border. 60 miles of the trail are currently open. The Genesee Valley Greenway connects to the Erie Canalway Trail in Rochester, NY. This trail is also part of the Genesee - Susquehanna trail, a proposed trail project extending from Rochester, NY to Havre de Grace, MD.

Connecting to the Genesee Valley Greenway would provide residents of Cattaraugus County with easier access to the Greenway and the Erie Canalway Trail, and encourage trail users to explore Cattaraugus County.

Connecting to the Genesee Valley Greenway could include some or all of the following steps:

PRIORITY

a. Coordinating with and supporting the Genesee Valley Greenway in completing the proposed trail segment from Cuba NY in Allegany County to Hinsdale NY in Cattaraugus County along abandoned railway.

According to the Friends of the Genesee Valley Greenway “The FOGVG is currently organizing local committees in Allegany and Cattaraugus counties, enlisting volunteers from communities along the Greenway. These committees will, for the most part, define what they want to accomplish locally on behalf of the trail. If they choose routine mowing or clearing of trail sections, that is what their committee will do. If they also choose to branch into fundraising; organizing trail events like 5K walks or bike tours; establishing small parks or rest areas; researching canal/rail history for interpretive signs and kiosks; or simply promoting use of the Greenway, then that is what they’ll work on. Committees may also assist with an upcoming ‘user survey’. These are local folks working together on trail projects of local interest” (The Future of the Greenway Trail).

Collaborating with the Genesee Valley Greenway has the potential to expedite the trail creation process and bring this important regional trail into Cattaraugus County. The Friends of the Genesee Valley Greenway website provides information about volunteering, supporting, and coordinating with the Greenway project.

<http://www.fogvg.org/press/next.php>

RECOMMENDED

b. Creating a connecting trail between the Genesee Valley Greenway in Hinsdale NY and the Finger Lakes / North Country Trail in Franklinville

Creating a connecting trail between the Genesee Valley Greenway proposed endpoint in the town of Hinsdale NY and the Finger Lakes / North Country Trail in the Village of Franklinville would make both of these communities trail crossroads, increasing the potential for tourism support businesses such as hotels, restaurants and outdoor equipment suppliers. It would also increase outdoor recreation choices for both community members and tourists.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



RECOMMENDED

There is an active rail line between the Town of Hinsdale and the Village of Franklinville. Trails alongside active rail lines are frequently referred to as Rails-with-Trails. A Rail-with-Trail along the active rail line is one possible route to consider to connect the Town of Hinsdale and the Village of Franklinville.

A second alternative is to utilize the existing snowmobile trail on private property for summer use as a multiuse trail. Community members have expressed interest in expanding use of key snowmobile trails to allow summer use.

Criteria for summer use of snowmobile trails would include:

- property owner interest in expanding trail use,
- land use compatible with trails (i.e. forested, undeveloped), and
- opportunities to connect to key destinations.

Expansion of snowmobile trails for multiuse trails during the summer would need to be coordinated with the Cattaraugus County Federation of Snowmobile Clubs, and private property owners.

Rails-with-Trails

"The increasing adoption of rails-with-trails has the potential to further reduce collisions by providing safe and intentional alternatives to trespassing on tracks. Americans increasingly demand that they be given balanced transportation options that include safe and healthy places to walk and ride. Taking full advantage of corridors to facilitate both rail and active transportation, as rails-with-trails do, is a smart and efficient step in that direction."

Rails-to-Trails Conservancy

Please see the following website for more information on Rails-with-Trails:

<https://www.railstotrails.org/resource-library/resources/americas-rails-with-trails/>

RECOMMENDED

c. Expanding the Genesee Valley Greenway from Hinsdale NY to the City of Olean

Connecting the Genesee Valley Greenway to the City of Olean would make Olean the final destination along this important trail corridor, giving the City the opportunity to benefit from increased tourism, and encouraging the development of businesses catering to tourists, such as hotels, restaurants, and outdoor equipment suppliers.

This would also connect the Genesee Valley Greenway to local universities and colleges, increasing the appeal of these academic institutions and providing students with healthy recreational opportunities. Expanding the Genesee Valley Greenway would connect the trail to the Jamestown Community College Cattaraugus County Campus in the City of Olean. It would also connect the trail to Saint Bonaventure University in the Village of Allegany through the Allegheny River Valley Trail. These are the two largest academic institutions in the County.



RECOMMENDED

This effort could be an extension of the official Genesee Valley Greenway or a connecting trail project. There is no closed rail line between the Town of Hinsdale and the City of Olean, however there is an active rail line. A Rail-with-Trail project is one possible route to consider to connect the Genesee Valley Greenway with the City of Olean.

Together, these projects would also create a continuous trail from Franklinville to Olean, which would provide a new trail amenity for people throughout the County, and encourage active transportation between these destinations.

2. ERIE-CATTARAUGUS RAIL - TRAIL CONNECTION



While the Genesee Valley Greenway connects Cattaraugus County to the City of Rochester, the Erie-Cattaraugus Rail Trail would connect Cattaraugus County to the City of Buffalo. Together, these strategic projects would connect Cattaraugus County to the major population centers in Western NY.

PRIORITY

a. Collaborating with the Erie-Cattaraugus Rail Trail project to complete the proposed trail to the County border in the town of Ashford

Increasing community support and awareness of the Erie-Cattaraugus Rail Trail project has the potential to hasten trail development. According to the Erie-Cattaraugus Rail Trail website "Erie Cattaraugus Rail Trail, Inc. is comprised of a diverse group of professionals from many communities along the proposed corridor. We still have lots of work to be done! We're looking for individuals and organizations that would enjoy using the trail in the future to contribute their time and talents!".

The Erie-Cattaraugus website provides information about volunteering, supporting, and coordinating with the Rail Trail project.

<http://www.ecattrail.org/proposedtrail>

PRIORITY

b. Collaborating with the Erie-Cattaraugus Rail Trail to extend the proposed trail to the end of the abandoned rail line.

Current plans for the Erie-Cattaraugus Rail Trail only extend to the County line. The abandoned rail line extends into the middle of the Town of Ashford in Cattaraugus County. The County should work with the Erie-Cattaraugus Rail Trail group to include this abandoned rail line within the Town of Ashford in the Erie-Cattaraugus Rail Trail project. The feasibility of using existing infrastructure would need to be studied.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



PRIORITY

c. Creating a new trail connecting the Erie-Cattaraugus Rail Trail to Finger Lakes / North Country Trail and Conservation Trail.

A new trail could connect with the Erie-Cattaraugus Rail Trail in the town of Ashford. This trail could serve as a connector to the Finger Lakes / North Country Trail or Conservation Trail. This would encourage visitors on the Erie-Cattaraugus Trail to continue into the County and experience the County trail system.

There is no closed rail line between the town of Ashford and the Finger Lakes / North Country Trail or Conservation Trail, however there is an active rail line. A Rail-with-Trail project is one possible route for this trail project.

3. ALLEGHENY RIVER TRAIL



An abandoned rail line runs through southern Cattaraugus County, from the Town of South Valley in the south western corner of Cattaraugus County, to the Town of Portville in the south eastern corner of the County. In the City of Salamanca, this rail line becomes the Pennsy Trail. In the Town of Allegany, Village of Allegany, and City of Olean, this rail line is the Allegheny River Valley Trail.



Connecting and expanding these trails along the abandoned rail line would:

- Connect the two cities within the County by trail and increase their identity as trail communities, encouraging active transportation and economic development,
- Connect thirteen municipalities by trail,
- Improve access to Allegany State Park by trail,
- Encourage recreational use and enjoyment of the Allegheny River, one of the distinctive natural features within Cattaraugus County,
- Improve Blue-way / Green-way connections in Cattaraugus County. This project could be coordinated with the Allegheny River Valley Blue Trail currently under development to create a multi-modal Blue-Green trail corridor along the Allegheny River. “The goal is to develop a series of boat ramps for small boats, canoes, kayaks and similar craft along the river, together with parking facilities, waterfront parks and other facilities to support additional water based use of the river” (Vision 2025 Comprehensive Plan),
- In conjunction with other trail projects recommended in this report, a trail along this rail line would create a major trail loop incorporating the Finger Lakes / North Country Trail, Genesee Valley Greenway, Allegheny River Valley Trail and Pat McGee Trail, and incorporating cities and villages including the City of Salamanca, the City of Olean, the Village of Allegany, the Village of Little Valley, the Village of Ellicottville and the Village of Franklinville, as well as 13 towns.

To move forward, an Allegheny River Trail project would need to be coordinated with and supported by the Seneca Nation of Indians.

a. City of Salamanca to Village of Allegany / City of Olean

The first phase of this trail project would connect the City of Salamanca to the Village of Allegany, utilizing the existing River Valley trail to connect to the City of Olean. This project is also a priority recommendation in the ongoing Allegheny River Public Access and Recreation Plan.

b. County line connection

The trail could then be extended to the County line, from the Town of South Valley to the Town of Portville. This would give municipalities outside the County the opportunity to tie in to the Cattaraugus County Trail System, extending the trail into Allegany County and Pennsylvania.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



4. PAT MCGEE TRAIL EXTENSION



a. Extending the Pat McGee Trail south through the City of Salamanca to connect to the Pennsy trail and Allegany State Park

RECOMMENDED

The Pat McGee Trail currently ends just north of the City of Salamanca. Completing the connection between this trail, the City of Salamanca, and Allegany State Park would create new opportunities for park visitors to explore the Cattaraugus County trail system and the Villages of Little Valley and Cattaraugus, while increasing opportunities for residents to access Allegany State Park through hiking, cycling and other active transportation methods.

To move forward, this project would need to be coordinated with and supported by the Seneca Nation of Indians.

b. Extending the Pat McGee Trail north to connect to the Village of Gowanda and Zoar Valley MUA

RECOMMENDED

The Pat McGee Trail currently extends from the City of Salamanca to the Village of Cattaraugus. Community members have shared interest in continuing the Pat McGee trail to the Village of Gowanda and the Zoar Valley MUA. This would create a trail connection between the two areas in Cattaraugus County with the largest number of Significant Natural Communities, Allegany State Park and Zoar Valley MUA. There is also the potential for this trail to eventually extend to Lake Erie.

“Completing the Pat McGee Trail is only the First Phase in a multi-phase strategy to connect Allegany State Park, the Seneca Nation’s two [territories], Zoar Valley, Gowanda and Erie County. Beyond the northern end of the trail in the Village of Cattaraugus, the current rail service is declining. If that activity ceases, the next rail spur will be converted to a rails-to-trail through Skinner Hollow and north to Zoar Valley and Erie County. This would establish a Northern Gateway into Cattaraugus County” (A New Vision for Outdoor Recreational Trails).

The rail line between the northern end of the Pat McGee trail and the Village of Gowanda is not abandoned. The County may want to investigate a Rail-with-Trail project, as well as other potential routes for making this trail connection.



5. CHAUTAUQUA TRAIL CONNECTION



POSSIBLE

Like Cattaraugus County, Chautauqua County has an attractive trail system and a strong equestrian culture. Connections between the trails in these two Counties would create an expanded trail system with the potential to attract more visitors to both counties. This could create new tourism opportunities, particularly for equestrian tourism.

There are several trail initiatives underway in Chautauqua County that are good candidates for connecting trails, including the Chautauqua County Greenway and the Chautauqua County Equestrian Loop.

A large proportion of wooded wetlands in the Towns of Dayton, Leon, and Conewango may present challenges for this trail project. See Figure 14 for locations of wetlands.

One alternative would be to connect to Chautauqua County through one or more Rails-with-Trails projects. See alternatives 5A, 5B and 5C on Figure 1 for possible routes. Other alternatives would need to be coordinated with private property owners.

6. MULTIUSE TRAIL FROM VILLAGE OF FRANKLINVILLE TO PAT MCGEE TRAIL



POSSIBLE

The Finger Lakes / North Country Trail connects the Village of Franklinville and the Pat McGee Trail, however, this is a pedestrian only trail. Other user groups including cyclists and equestrians are prohibited.

The Village of Franklinville and the Village of Little Valley are identified in 'Growing the Equestrian Economy in Cattaraugus County, NY' as the two primary emerging centers of equestrian activity within the County. Because the Pat McGee Trail passes through the Village of Little Valley, a trail from the Village of Franklinville to the Pat McGee Trail would unite these two equestrian hubs. This could benefit both communities economically by increasing equestrian tourism, while providing new recreational opportunities for community members.

An existing snowmobile trail connects the Pat McGee Trail and the Village of Franklinville. This trail connects to several State Park multiuse trail systems, including the Ellicottville Trails and the McCarty Hill/Rock City Trails.



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POSSIBLE

During the Countywide Trail System Plan planning process some community members voiced interest in expanding use on key winter snowmobile trails to allow summer use as multiuse trails.

Criteria for summer use of snowmobile trails would include:

- property owner interest in expanding trail use,
- land use compatible with trails (i.e. forested, undeveloped), and
- opportunities to connect to key destinations.

Because of the strategic benefits of this trail connection, and the undeveloped nature of the land the snowmobile trail passes through, this is a possible candidate for a multiuse trail. Property owners would need to support this project in order for it to move forward. See Follow-on Activities for more information.

Expansion of snowmobile trails for multiuse trails during the summer would need to be coordinated with the Cattaraugus County Federation of Snowmobile Clubs, and private property owners.

A guidebook for equestrian trail design is available at the following website:

<http://www.americantrails.org/views/hancockequestrian.html>

SUPPORT STATE PARK TRAIL DEVELOPMENT PROJECTS



RECOMMENDED

Many state parks and conservation areas within Cattaraugus County incorporate publicly accessible trails. A map of state parks and conservation areas is included in Figure 4 and Table 4. These dense systems of stacked loop trails are key resources within the Cattaraugus County Trail System. They provide a wide range of different trail types and conditions for diverse users in a single destination. They also disperse trail impacts by encouraging users to explore multiple trails.

State park trails are very popular within Cattaraugus County. Over 75% of survey takers said that they use the Allegany State Park trails, and another 40% identified Pine Hill State Forest, McCarty Hill or Rock City trails.

The County should support State Park efforts to continue developing trails. This includes trail projects identified in the 2010 Allegany State Park Final Master Plan (2010), such as the Quaker Area Bikeway project.



ALL TERRAIN VEHICLES



The online survey revealed a strong interest in ATV trails. Though ATV use is currently prohibited in Allegany State Park, adjacent Allegheny National Forest in PA has over 100 miles of ATV accessible trails.

<http://visitanf.com/atv-trails/>

Bear Run ATV Park in the Village of Franklinville offers ten miles of ATV trails across 750 acres.

<http://enchantedmountains.com/video/atv-trails-woods-bear-creek-6041>

There are also ATV trails at Tall Pines ATV Park in neighboring Allegany County. This could serve as a model for similar ATV parks in Cattaraugus County.
<http://www.tallpinesatvpark.com/>

One way to incorporate ATV use within the Cattaraugus County Trail System is to include information about existing ATV trails in Cattaraugus County trail information, including trail maps and the County Visitor Information & Tourism website. This website does not yet include information on ATV use as a recreational opportunity in Cattaraugus County.

<http://enchantedmountains.com/activities>

The following websites provide information on ATV trail design issues and how to address them. These include soil erosion, drainage and grading considerations specific to ATV trails.

Sustainable ATV Trails. Environmental Protection Agency and US Forest Service.

https://www.fs.fed.us/t-d/atv_trails_site/index.html

So You Want to Build an ATV Trail? Wisconsin Department of Natural Resources.

<http://dnr.wi.gov/aid/documents/atv/buildatvtrail.pdf>

RECOMMENDED

POSSIBLE

There is also an opportunity to open existing trails to possible ATV use. Some existing snowmobile trails may be compatible with ATV use during the summer. Criteria for ATV use include property owner interest in expanding trail use to include ATV use, safety concerns, and environmental protection considerations.

Expansion of snowmobile trails for ATV use would need to be coordinated with the Cattaraugus County Federation of Snowmobile Clubs.



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EXISTING TRAIL IMPROVEMENTS



POSSIBLE

Overall, community feedback from the crowdsourcing websites and surveymonkey.com website has shown a high level of satisfaction with the existing trails. Community feedback has focused largely on a need for more information and signage. However, a few key improvements to existing trails were identified by survey respondents.

- More ADA accessible, paved trails, including widening the Allegheny River Valley Trail, and paving the Pat McGee Trail.
- Winter maintenance of ADA accessible trails.
- Increased general maintenance, particularly clearing fallen trees - including fallen trees in Blueway Trails. Please see Appendix D for Trail Operations and Maintenance information.

TRAIL ACCESS IMPROVEMENTS



Not all trail access points within Cattaraugus County have been identified. Cataloging these points and making them easy to locate is a priority recommendation of this plan. See the following section for more information.

RECOMMENDED

Trail access points should always include signage. See next section and Figure 22 for more information. Other desirable amenities for trail access points include seating, restrooms and drinking fountains. Restrooms are particularly important on longer or more popular trails. These facilities encourage tourists to stop at a particular trailhead which may increase the chances of tourists venturing off the trail and into local businesses.

Another important consideration is providing larger parking facilities that are suitable for parking horse trailers with separated horse trailer parking.

A guidebook for Equestrian Trail and Trailhead design is available at the following website:

<http://www.americantrails.org/views/hancockequestrian.html>



SIGNAGE, MAPS, MARKETING AND EVENTS



Cattaraugus County has a robust existing trail system, with a variety of trail amenities for many different trail users. Making certain that potential trail users are aware of this system, and can easily identify trail routes, difficulty levels and access points is essential for increasing the benefits the existing system provides. Signage, maps, marketing and events enhance accessibility by increasing user knowledge of the trail system.

Community input has shown a strong interest in improving signage, maps and marketing for the Cattaraugus County Countywide Trail System. Nearly 60% of survey users to date selected 'better mapping / more information available about trails' as the most important improvement to the Cattaraugus County trail system. Another 30% selected 'signage improvements'.

'Lack of information / mapping' and 'lack of signage' were also the most commonly chosen barriers that prevent people from accessing the trail system. Together, these were selected by 83% of survey users.

Write in comments from survey users included the following:

- "Map recommended road bike rides in the county."
- "I tried to hike Elkdale, but couldn't find any trailhead or access point... Online maps seemed to be outdated/inaccurate."
- "Indicate how local trails can connect with other trails throughout WNY, NYS, PA, and OH and display these trails on maps and signage."
- "Need better maps that can be downloaded."
- "This area needs a comprehensive topo map with all trails on it that doesn't favor any particular trail, park or use."
- "Better tourism marketing for making the area a MTB destination. Need funding for more new trail construction."
- "Mileage listing on maps /trail"
- "Maps better online directions to horse trail heads parking"
- "If all maps could be gps or on an app"



Photo example from the El Camino Trail in Rochester, NY



Photo example from the El Camino Trail in Rochester, NY



Photo examples from the El Camino Trail in Rochester, NY

KIOSK

TYPES OF LOCATIONS

- » Trailheads (existing and proposed)

FREQUENCY

- » All primary access points

INFORMATION

- » Trail Icon
- » Trail map with trail length
- » Destinations & points of interest with attractive photographs of destinations
- » Connectivity to other trails & paths
- » Location of additional trailheads and distance to next trailhead in each direction
- » Link to online County trail map and tourism website

DIRECTIONAL SIGN

TYPES OF LOCATIONS

- » Trail intersections

FREQUENCY

- » As needed

INFORMATION

- » Trail Icon
- » Destinations / points of interest
- » Connectivity to other trails / paths
- » Directions

MILEPOST BOLLARD & EMERGENCY LOCATION MARKERS

TYPES OF LOCATIONS

- » Along trail corridor
- » Emergency markers located on remote sections of the trail where there are no easily identifiable landmarks

FREQUENCY

- » Every 1/4 of a mile

INFORMATION

- » Trail icon
- » Trail distance
- » Each emergency marker has a unique code specific to its location and is GPS located and entered into the 911 system with access directions



Photo of Ellicottville Bike and Bean



Photo of Holiday Valley Resort



Finger Lakes Trail & North Country Trail Trail Markers

A PICTURE TELLS A STORY

- » An attractive image showing people enjoying a destination can encourage visitors to stop and explore

REGIONAL TRAIL NETWORK

- » Incorporating trail signage from larger trails helps with wayfinding and encourages users to see the big picture

Barton & Loguidice

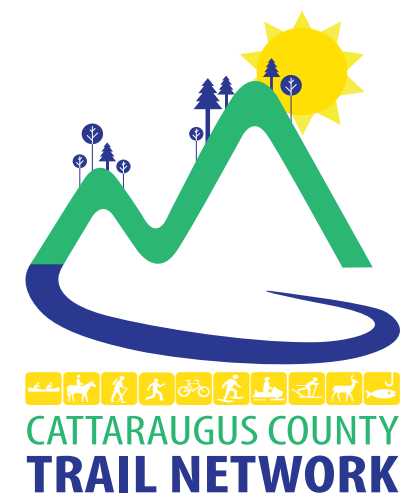


FIGURE 22

PRELIMINARY SIGNAGE SCHEDULE

ROAD & TRAIL SIGNAGE EXAMPLES





SIGNAGE

PRIORITY

Clear signage is the first step to making the Cattaraugus County Trail System more user friendly and accessible for all. All trail signage in Cattaraugus County should identify the individual trail and the Cattaraugus County Trail System, using consistent colors, graphics and materials. Consistent signage improves wayfinding, while raising awareness that individual trails are part of a larger system. This encourages users to explore other trails within the Cattaraugus County Trail System.

A clear signage system includes a hierarchy of different signage types. Kiosks are the least frequent type of trail signage, and should be built at all trailheads. Kiosks provide the most information, including:

- Trail identification,
- Maps and wayfinding showing the trail route, trail difficulty, nearby trails and popular destinations,
- Trail length and distance to nearest trailheads, as well as distances to other trails and to popular destinations,
- Information about and attractive images of popular destinations such as State Parks, adjacent communities and local businesses. Signs can incorporate QR codes or website addresses to provide additional information for interested users. Local trail-related businesses may be interested in sponsoring or maintaining a trailhead if the kiosk includes attractive images and information about accessing their business.
- Link to County online trail map and tourism website.

Directional signs occur where trails intersect with one another, or with major roads. These signs include directions and distances to destinations, points of interest, and other trails.

Milepost bollards and emergency location markers should occur regularly along trail corridors. These markers should include trail identification, and distances. GPS coordinates and access directions for each emergency location marker are entered into the 911 system, allowing users in remote areas to easily communicate their location.

See Figure 22 for information about trail signage.

For established trails, such as the North Country Trail, there are existing trail organizations that offer assistance in designing and installing trail signage. See Village and Business Development Opportunities for more information.



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MAPPING

Like signage, a comprehensive mapping system orients potential users within the trail system. A good mapping system allows users to identify potential routes, identify access points, assess difficulty level, see allowed user types on each trail and explore nearby destinations and points of interest.

Geographic information systems (GIS) allows planners and County staff to make intuitive, easily updated maps digitally. This helps keep mapping information organized, and makes it simpler to keep the Cattaraugus County Trail System Maps current as the trail system continues to grow.

The Cattaraugus County Office of Real Property and GIS has made significant strides toward comprehensive Countywide trail mapping, through the Cattaraugus County Trail Viewer Website. This website allows users to view Hiking, Bicycling, Equestrian and Snowmobile Trails, environmental information, and various base maps.

<http://maps2.cattco.org/trailsflex/>

Several other online mapping tools provided by the Cattaraugus County Office of Real Property and GIS are also potential resources for building comprehensive trail maps within Cattaraugus County. The Cattaraugus County Snowmobile Trails Map includes snowmobile trails both within and outside the County, as well as useful information such as the locations of hotels and restaurants.

<http://maps2.cattco.org/snowmobile/>

The Cattaraugus County Outdoor Viewer includes access points for hunting and fishing, and outdoor businesses.

<https://maps2.cattco.org/outdoor/>

The Cattaraugus County GIS Map Viewer is a mobile application that allows users to access the Allegany State Park Map, the Snowmobile Trail Map and the Outdoor Map which includes hunting and fishing access points and outdoor businesses.

<https://maps2.cattco.org/mobilesplash/#intro>

These existing resources establish a strong foundation for Countywide trail mapping.

Through the following recommendations, the County will be able to capitalize on previous efforts to build a more intuitive, accessible mapping system.



PRIORITY

a. Update Trail Viewer.

As part of the Countywide Trail System planning process, the Cattaraugus County Office of Real Property and GIS has organized many sets of trail data to create a single layer of data that includes all trails within the County and information about allowed user types on each trail.

Currently the Online Trail Viewer shows the previous trail information, which shows many multiuse trails allowing only a single user group.

The Online Trail Viewer should be updated to reflect the most current trail data. This would allow trail users to see the full range of activities allowed on each trail and explore trails they may not have known were open to them.

PRIORITY

b. Trail Difficulty.

Some trail organizations, such as the Western New York Mountain Bicycling Association, provide trail difficulty information for the trails they manage. Where information is available, trail difficulty should be added as an additional 'attribute' or data set within the new master trail GIS layer. This would allow the County to sort trails by difficulty level, and to generate trail difficulty maps, as well as maps of ADA accessible trails.

PRIORITY

c. Trail Access Points.

Not all trail access points within Cattaraugus County are currently georeferenced. Without maps of trail access points, potential users may be unable to access trails, even if they are aware of the trail location. Mapping the existing access points and incorporating them in the Trail Viewer is critical for the success of the Countywide Trail System Plan.

d. Add Trail Businesses and Points of Interest to Trail Viewer.

Many businesses within Cattaraugus County benefit from trail visitors. These businesses include outdoor equipment suppliers, hotels and campgrounds, restaurants and tourism destinations. Including the locations of these businesses within the Trail Viewer allows potential trail users to identify points of interest and local businesses to include in their trips.

PRIORITY

e. Making Connections Between Trail Resources.

The County Tourism & Visitor Information website, <http://enchantedmountains.com>, should include an updated trails page with a link to the Online Trail Viewer. The Online Trail Viewer website should also include a link to the County Tourism website.

There should be a set of Cattaraugus County trail maps as downloadable, printable pdfs. Trail maps should be generated using the updated County trail GIS information. These would include overview maps for all hiking, cycling, equestrian, and snowmobile trails in the County, specialty maps for users such as cross country skiers or paddlers, and maps for individual trails.



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These maps should be available for download on the County website, on the County Tourism & Visitor Information website, <http://enchantedmountains.com>, and provided in brochure form at local hotels and outdoor equipment suppliers. The County should also contact local news organizations to publicize the trail system and provide information about how to access the trail maps online.

f. Include Trail Viewer in Cattaraugus County GIS Map Viewer Mobile Application.

The download-able Cattaraugus County GIS Map Viewer Mobile Application is a huge leap forward for the County in making County maps more accessible. Unlike pdfs, the information in this application will always reflect the most up-to-date County mapping information.

This application already includes the Allegany State Park Viewer, Snowmobile Trails and the Outdoor Map with fishing and hunting information. Incorporating the Trail Viewer into this application will allow trail users on-the-go in depth information about every trail within the County system.

The Online Trail Viewer and County Tourism trail websites should also include links to this application.

PRIORITY

MARKETING AND EVENTS

A number of trail-related events are hosted each year in Cattaraugus County. These events are listed on the County Tourism & Visitor Information website. <http://enchantedmountains.com/events?page=4>

This website allows users to search for events based on start date. It would be beneficial if the event website also allowed users to search for particular types of events, such as paddling events or equestrian events. This would allow interest groups to find relevant events quickly.

Trail related events planned for summer 2017 are included in Table 11.



Table 11: Trail Related Events Summer 2017 in Cattaraugus County.

Event Name	Date
Bear Run ATV Park Dice Run	04/01/17
Ranch Riding, Western Horsemanship & English Equitation	04/09/17
Ranch Horse Riding & Pleasure Clinic	04/29/17
Rock City Park Season Opening	05/01/17
Centered Riding Clinic	05/05/17
Great Valley Fireman's Annual Regatta	05/06/17
Allegany State Park Adventure Run	05/06/17
Happy Half-Marathon & 5K	05/13/17
Allegany State Park Geobash	05/19/17
Creekside Round-up's Spring Carriage & Wagon Drive	05/21/17
Little Valley Rider's Annual Memorial Day Trail ride	05/26/17
SUP & Kayak River Trip	05/27/17
59th Annual Allegany Nature Pilgrimage	06/02/17
Ellicottville Outdoor Expo	06/03/17
Lou Eibl Corral's Spring Trail Ride at Allegany State Park	06/09/17
Annual Raccoon Rally Cycling Festival Weekend	06/17/17
Holiday Valley Mudslide Obstacle Trail Run	06/17/17



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Event Name	Date
Ellicottville Paddle Festival	06/17/17
Obstacle & Trail Clinic	07/02/17
Randolph ToyMaker 5k Run/Walk	07/29/17
Little Valley Rider's Annual Labor Day Trail Ride	09/04/17

RECOMMENDED

There is the potential to expand the range of events in Cattaraugus County to include more large, multi-day trail events. These events have the potential to attract tourists from longer distances, and to promote overnight trail visits. According to a study on the economic impact of the Erie Canalway Trail, "a focus on increasing the number of overnight visitors to the ECT could generate significant economic benefits for ECT communities as they spend more than twenty times that of day visitors. Suggested or themed itineraries, package trips planned by a group of lodging establishments, fully supported rides, additional marketing targeted directly to cycling tourists, and a cyclists welcome designation may increase the number of out of town visitors and entice those who live within ECT and adjacent counties to include an overnight stay in their trail visit" (The Economic Impact of the Erie Canalway Trail).

New York State provides grants for tourism and marketing initiatives. The 'I Love NY' Market New York - Tourism Grant Program provides funding for regional tourism marketing, tourism capital and tourism special events. See Funding section for more information and other funding opportunities.

VILLAGE AND BUSINESS DEVELOPMENT OPPORTUNITIES



IMPLEMENTING PRIOR PLANNING INITIATIVES

Cattaraugus County has invested in several strategic plans for village and business development. These plans have focused on how Cattaraugus County can benefit economically from eco-tourism.



The Smart Development for Quality Communities Guidebook Series addresses these issues in the following volumes:

- A Design Guidebook for Towns and Villages,
- Summary & Analysis of Similar Initiatives for Park Community Economic Development,
- Economic & Market Analysis for Communities in the Perimeter of Allegany State Park,
- Economic Development Strategy- Linkages between Allegany State Park and Nearby Communities.

‘Economic Development Strategy- Linkages between Allegany State Park and Nearby Communities’, synthesizes the findings of these four studies and provides design guidelines for development in cities and villages, as well as key demonstration projects.

POSSIBLE

Recommendations in this Plan include guidelines for building placement, parking, street signage and sidewalks. These recommendations are tailored toward helping every city and village in Cattaraugus County benefit from tourism by making each one attractive and accessible for tourists.

‘Economic Development Strategy - Linkages between Allegany State Park and Nearby Communities’ should be consulted for a full list of design guidelines.

Incorporating these guidelines into municipal code is recommended for all villages and cities within Cattaraugus County.

TRAIL TOWNS INITIATIVE

RECOMMENDED

The North Country Trail Association Maintains a Trail Town program to encourage business development along the trail. “A Trail Town is a community through which the North Country Trail passes that supports hikers with services, promotes the Trail to its citizens and embraces the Trail as a resource to be protected and celebrated. Trail Towns are built on a relationship between a town, the Trail and its volunteers” (North Country Trail Association).

As discussed in the economic benefits section of this Plan, Trail Town programs are a proven strategy for increasing the economic impact of trail projects. The Allegany “Trail Town” program in PA promotes businesses along the Great Allegheny Passage. Direct annual spending by trail users exceeds \$40 million. Trail related businesses pay \$7.5 million in wages each year and, since 2007, 65 businesses have been created or expanded, creating 270 new jobs in small towns along the trail (conservationtools.org).





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RECOMMENDED

The North Country Trail Association provides guidelines for becoming a Trail Town, and a Trail Town Handbook. Joining this Trail Town program would provide a framework for developing the 10+ towns and villages along the North Country / Finger Lakes Trail and increasing the economic benefits of participating in the regional trail system. The North Country Trail Association also provides fundraising assistance for Trail Town projects and advertises Trail Towns on their website.

<https://northcountrytrail.org/trail/trail-towns/>

The Trail Town Handbook could also be used as a model for other towns in Cattaraugus County that do not connect to the Finger Lakes Trail / North Country Trail, but are adjacent to other regional trails. The 'Basic Elements of a Trail Town Strategy' provided by the North Country Trail Association are applicable to any town interested in benefiting from a nearby trail system. This list is paraphrased below:

- Entice trail users to get off the trail into your town.
- Welcome trail users to your town by making information about the community readily available at the trailhead and key entryways into the community.
- Make a strong and safe connection between your town and the trail.
- Educate local businesses on the economic benefits of meeting the needs of day hikers, section hikers and long distance hikers.
- Support and protect a trail friendly and pedestrian friendly character of the town.
- Work with neighboring chapters and communities to promote the trail as a regional tourist destination.
- Expand the local trail volunteer network and build additional capacity.

(North Country Trail Association Trail Town Handbook).



TRAIL AND EVENT COORDINATION



RECOMMENDED

Funding a trail coordination position within the County would help coordinate all of the trail efforts listed above to grow the County trail system. A trail coordinator could organize the many trail efforts in the County, work on grant writing projects to fund these trails, and manage the logistics involved in maintaining and building a trail system.

Other possible activities for a trail coordinator within Cattaraugus County could include:

- Coordinating trail events and planning new multi-day trail events to attract trail users from greater distances,
- Coordinating with the County office of Real Property and GIS to provide trail maps,
- Kick-starting local trail initiatives such as the Ellicottville Great Valley Trail Master Plan and the Allegheny River Valley Blue Trail. See Section 4.4 for a list of trails under development in Cattaraugus County.

A trail coordination position could potentially be funded through New York State grants. See Funding Section for more information.



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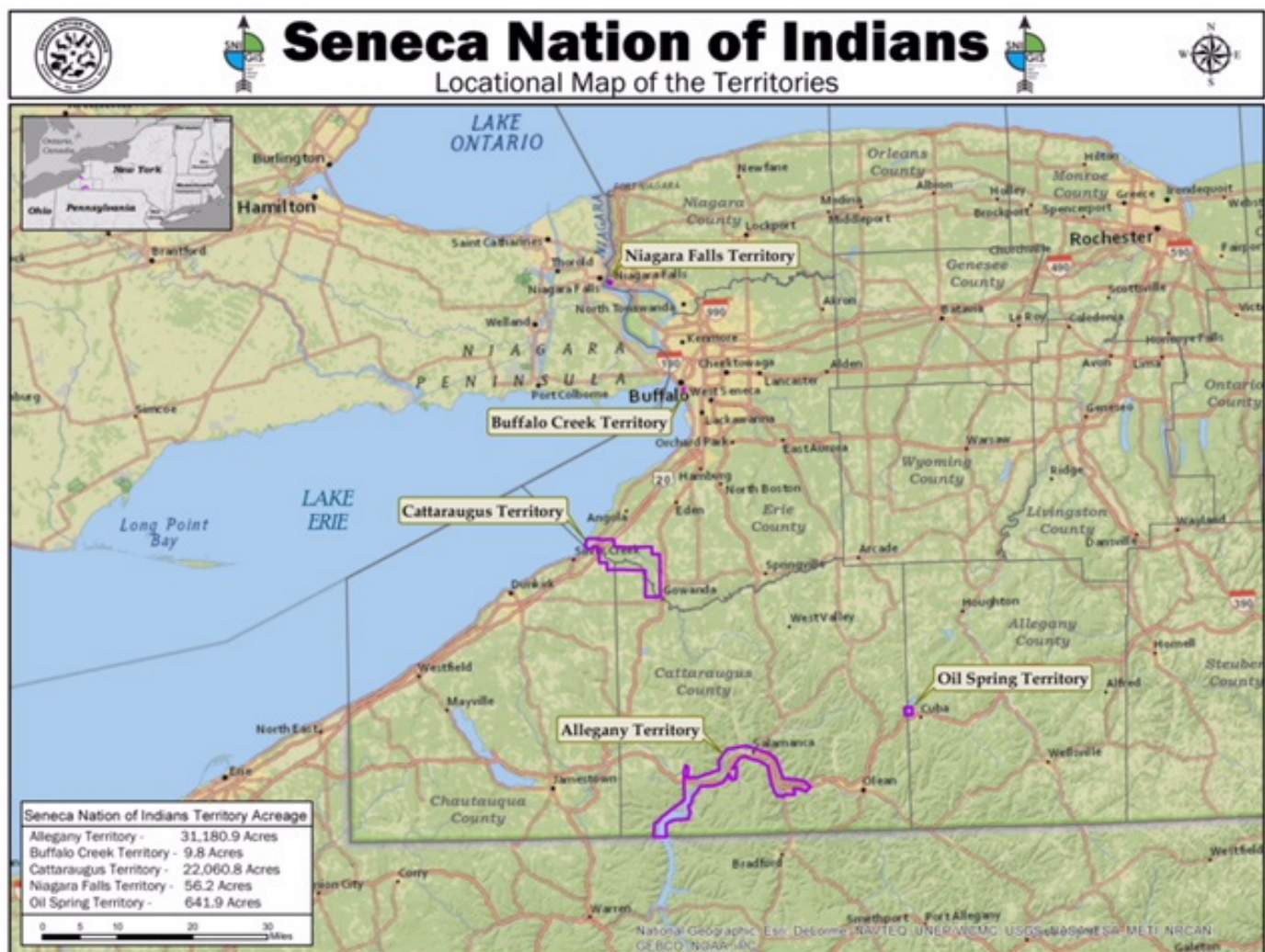


SENECA NATION

Cattaraugus County fosters current designated and undesignated trails as well as plans for future trails surrounding and/or connecting to portions of the Seneca Territories. However, once Nation boundaries are crossed land and water use policy, procedures, and laws fall fully under the authority of the Seneca Nation. The Nation will continue to ensure measures are taken to maintain and protect waters of and the lands within the Seneca Nation.

The Seneca Nation Community Planning and Development Department, and Department of Transportation are in the process of developing Nation specific plans for the establishment of multi-territory, multi-use trail systems. Once completed, plans will serve as guides for the future development, operation, and use of any trails within Nation boundaries. Users are subject to any and all Nation laws and land use policies.

For more information regarding the Seneca Nations trails contact the Department of Community Planning and Development or Department of Transportation at 716-945-1790 ext. 3469.





8.0 IMPLEMENTATION






PHASING

The projects range from those that can be implemented quickly and at very low costs to those that would be more costly and long-term because of the need for further study prior to design and implementation.

Identification of facilities in this Plan increases the likelihood of implementation as opportunities arise. The established prioritization serves as a general guide in phasing implementation, but does not suggest a specific order in which projects will ultimately be constructed. Recommended improvements, regardless of their established priority, may be tied to capital improvement schedules and specific opportunities.

Each project varies in priority based on the number of people served by the project and the feasibility of construction and funding. Each project was ranked according to the following phasing options:

-  **Priority** – Highly beneficial projects that are immediately feasible, or will have the most impact and should therefore be addressed first.
-  **Recommended** – Very beneficial projects that will have a significant impact and should be addressed next.
-  **Possible** – Beneficial projects that have a less critical time frame, or cannot begin until other projects are completed or issues are addressed.



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Table 1: Project Phasing

Project Name	Project Description	Priority Level
1. Genesee Valley Greenway Connection	a. Complete segment from Cuba NY in Allegany County to Hinsdale NY in Cattaraugus County along abandoned railway	Priority
	b. Trail connecting Genesee Valley Greenway in Hinsdale to Finger Lakes / North Country Trail in Franklinville, possible routes along active railway or existing snowmobile trail	Recommended
	c. Trail connecting Genesee Valley Greenway in Hinsdale to City of Olean, possible route along active railway	Recommended
2. Erie Cattaraugus Rail - Trail Connection	a. Support Erie- Cattaraugus Rail- Trail to complete proposed trail to County line (Town of Ashford) along abandoned railway	Priority
	b. Work with Erie Cattaraugus Rail- Trail to extend trail into Cattaraugus County along abandoned railway. Trail ends in Town of Ashford	Priority
	c. Create trail connecting Erie Cattaraugus Rail - Trail to Finger Lakes / North Country Trail & Conservation Trail. Possible route along active railway.	Priority
3. Allegheny River Trail	a. Expand and connect rail to trail projects along Allegheny River to create new major County trail from City of Salamanca to Village of Allegany / City of Olean along abandoned railway	Recommended
	b. Continue trail west from Pennsy trail and east from Allegheny River Valley Trail along abandoned railway to County line.	Possible
4. Pat McGee Trail Extension	a. Extend trail south to connect to City of Salamanca, Pennsy trail and Allegany State Park	Recommended
	b. Extend trail north to connect to Village of Gowanda and Zoar MUA, possible route along active railway	Recommended

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Project Name	Project Description	Priority Level
5. Chautauqua Trail Connection	a. Connection from northern edge of Pat McGee trail to Town of Perrysburg and Chautauqua County border, possible route along active railway	Possible
	b. Connection from northern edge of Pat McGee trail to Village of South Dayton and Chautauqua County border, possible route along active railway	Possible
	c. Connection from southern edge of Pat McGee trail to Town of Randolph and Chautauqua County border, possible route along active railway	Possible
6. Multiuse Trail from Village of Franklinville to Pat McGee Trail	a. New multiuse trail connecting Franklinville, Ellicottville trail system and the Pat McGee Trail, possible route along existing snowmobile trail	Possible
7. Support State Park Trail Development Efforts	a. Support State Parks and Conservation Areas to develop proposed trails including Quaker Area Bikeway in Allegany State Park	Recommended
8. All Terrain Vehicles	a. Provide information about existing ATV trails on County trail maps, and County tourism website	Recommended
	b. Expand key snowmobile trails for summer ATV use	Possible
9. Existing Trail Improvements	a. More ADA accessible, paved trails including widening the Allegheny River Valley Trail and paving the Pat McGee Trail	Possible
	b. Winter maintenance of ADA accessible trails	Possible
	c. Increased general maintenance	Possible



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Project Name	Project Description	Priority Level
10. Trail Access Improvements	a. Map any unidentified trail access points	Priority
	b. Include additional seating, restrooms and drinking fountains on longer and more popular trails	Recommended
	c. Provide separated equestrian parking areas at trails that allow equestrian use	Recommended
11. Signage	a. Create a comprehensive signage system using consistent graphics, colors and materials for all trails within Cattaraugus County trail system	Priority
12. Mapping	a. Update Trail Viewer to reflect current trail data	Priority
	b. Include trail difficulty and ADA accessibility in County trail mapping	Priority
	c. Include trail access points in County trail mapping	Priority
	d. Add trail businesses and points of interest to County trail mapping	Recommended
	e. Coordinate all County websites related to trails to provide links between related trail information	Priority
	f. Include Trail Viewer Map in County download-able GIS map viewer application	Priority
13. Marketing and Events	a. Plan multi-day trail events	Recommended



Project Name	Project Description	Priority Level
14. Village and Business Development Opportunities	a. Incorporate guidelines from 'Economic Development Strategy' plan into municipal code for all cities and villages in Cattaraugus County	Possible
	b. Join North Country Trail Association Trail Towns Initiative	Recommended
15. Trail and Event Coordination	a. Fund a trail coordinator position for Cattaraugus County	Recommended

FUNDING

This section identifies and discusses the numerous sources which can be used to provide monetary assistance for bicycle and pedestrian facilities and trail programs. Some programs are more appropriate than others for funding the Cattaraugus County Countywide Trail System, but this list has not been edited in order to provide a range of funding solutions.

Many of these funding sources are available on the federal level, as dictated in the new transportation legislation, Fixing America's Surface Transportation Act, or the "FAST" Act. Many of these federal programs are administered by the New York State Department of Transportation (NYSDOT). Additionally, there are other state and regional funding sources which can be used to help achieve the goals and objectives of this Plan. Finally, a number of private funding sources exist which can be used by local governments to implement bicycle and pedestrian-related programs. The following quick-reference table (Table 12) includes all of the funding sources that are described in greater detail in Appendix E.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN



Table 12: Funding Sources

Funding Source	Category	Relevant Project Types
National Highway Performance Program	Federal	Bicycle transportation facilities and pedestrian walkways adjacent to highways in the National Highway System, including interstates (Section 207)
Highway Safety Improvement Program	Federal	Intersection safety improvement, pavement and shoulder widening; bicycle/pedestrian/disabled person safety improvements; traffic calming; installation of yellow-green signs at pedestrian and bicycle crossings and in school zones; transportation safety planning; road safety audits; improvements consistent with FHWA publication "Highway Design Handbook for Older Drivers and Pedestrians"; safety improvements for publicly owned bicycle and pedestrian pathway or trail
Congestion Mitigation and Air Quality (CMAQ)	Federal	Funding to reduce vehicle emissions and traffic congestion in areas where air quality does not meet National Ambient Air Quality Standards. Eligible projects include bicycle and pedestrian facility improvements; transit improvements; rideshare programs; alternative fueling facilities/clean vehicle deployment
Transportation Alternatives	Federal funding administered by NYS DOT	On and off road bicycle and pedestrian facilities; projects that improve non-driver safety, access to transportation and enhanced mobility; conversion of abandoned railroad corridors into non-motorized trails; projects that enable/encourage children to walk/bike to school (Safe Routes to School); construction of turnouts, overlooks and viewing areas; planning, designing or constructing boulevards in former divided highway right-of-ways

CATTARAUGUS COUNTY
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Funding Source	Category	Relevant Project Types
Recreational Trails Program	Federal funding administered by NYS OPRHP	Develop and maintain trails for both motorized and non-motorized uses, including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or other off-road motorized vehicles; develop trailhead facilities; purchase/lease of maintenance equipment; acquisition of easements/property
Highway Safety Section 402 Grants	Federal	Federal Safety-related programs and projects (Section 402)
Urbanized Area Formula Grants, Capital Investment Grants and Loans, and Formula Program for Other than Urbanized Area	Federal (FTA)	Bicycle access to public transportation facilities, shelters and parking facilities, bus bicycle racks
HUD Community Development Block Grant (CDBG)	Federal Funding Administered by NYS OHCR	Public facilities and improvements, such as streets, sidewalks, sewers, water systems, community and senior citizen centers, recreational facilities, and greenways
CHIPS (Consolidated Local, State, and Highway Improvement Program) (www.dot.ny.gov/programs/chips)	State	Bike lanes and wide curb lanes; sidewalks
Market NY Empire State Development Grant	State	Trail marketing, promotion and signage
Local Waterfront Revitalization Program NYSDOS	State	Trail planning, development, and signage for communities along designated inland waterways (including the Allegheny River and Cattaraugus Creek)
OPRHP-Environmental Protection Fund Grant Program for Parks, Preservation, and Heritage	State	Municipal grant program offers funding for trail planning and development.



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Funding Source	Category	Relevant Project Types
The Green Innovation Grant Program GIGP (http://www.efc.ny.gov/)	State	Projects that improve water quality and demonstrate green stormwater infrastructure in New York State.
The Greater Rochester Health Foundation	Regional	Community health and prevention projects and programs
Bikes Belong Coalition (www.bikesbelong.org/grants)	Private	Bicycle facilities; end-of-trip facilities; trails; advocacy projects such as Ciclovias
National Trails Fund (www.americanhiking.org/our-work/national-trails-fund)	Private	Hiking trails
Global ReLeaf Program (www.americanforests.org/our-programs/global-releaf-projects/global-releaf-grant-application/global-releaf-project-criteria)	Private	Trail tree plantings
Robert Wood Johnson Foundation (general) (www.rwjf.org/grants)	Private	Various
The Conservation Alliance Fund (www.conservationalliance.com/grants/grant_criteria)	Private	Land Use
Surdna Environment/Community Revitalization (www.surdna.org/grants/grants-overview.html)	Private	Community revitalization and environment, including greenway trail design



SEQRA

Project implementation may involve potentially significant impacts to the environment from construction activities. The following is a framework to comply with applicable State and Federal permitting requirements.

The Cattaraugus Countywide Trail System is subject to State Environmental Quality Review Act (SEQRA) review because the actions proposed may potentially impact the environment. The Countywide Trail System Plan is a Type I Action because the construction of the trail is an action that will involve the physical alteration of 10 acres or more. The SEQRA process for this project will involve a coordinated review as follows:

The Project Sponsor will complete Part I of a Full Environmental Assessment Form (FEAF), identify all other involved agencies and transmit the FEAF to the involved agencies along with a notice that a lead agency must be agreed upon within 30 calendar days of the date the FEAF was transmitted to them.

The lead agency will complete Part 2 and if needed, Part 3 of the FEAF.

The lead agency will determine the significance of the environmental impact within 20 calendar days of its establishment as lead agency, or within 20 calendar days of its receipt of all information it may reasonably need to make a determination of significance, whichever is later.

The lead agency must immediately prepare, file, publish and distribute the determination of significance in accordance with 6 CRR-NY Part 617.12.

Detailed instructions for each step of the SEQRA review process can be found on the New York State Department of Environmental Conservation website: <http://www.dec.ny.gov/permits/357.html>

FOLLOW ON ACTIVITIES

Follow-on activities are future endeavors that will help advance the overall objectives of the Countywide Trail System Plan. These issues should be considered as the proposed improvements move into the next phase of development. The following issues need to be considered:

1. Environmental permitting is outlined in this report, and will be a critical undertaking to advance trail projects. An archaeological investigation may be necessary for some projects, but was not part of this study.
2. A signage study plan is recommended to design a finalized signage schedule for different trail and sign types throughout the County.
3. Investigate possibility of using National Grid/National Fuel Easements as potential trail corridors.



4. To get new trails constructed, the following steps will be necessary:

- a. Secure funding for design and construction
- b. SEQRA and permitting
- c. Environmental testing as required
- d. Design development
- e. Construction documents
- f. Bidding
- g. Construction
- h. Acceptance by client
- i. Management and maintenance plan
- j. Programming and community involvement
- k. Identify possible community partners



CATTARAUGUS COUNTY **COUNTYWIDE** TRAIL SYSTEM PLAN

APPENDIX A TRAIL CONSTRUCTION GUIDELINES



TRAIL CONSTRUCTION GUIDELINES

(Derived from AASHTO "Development of Bicycle Facilities")

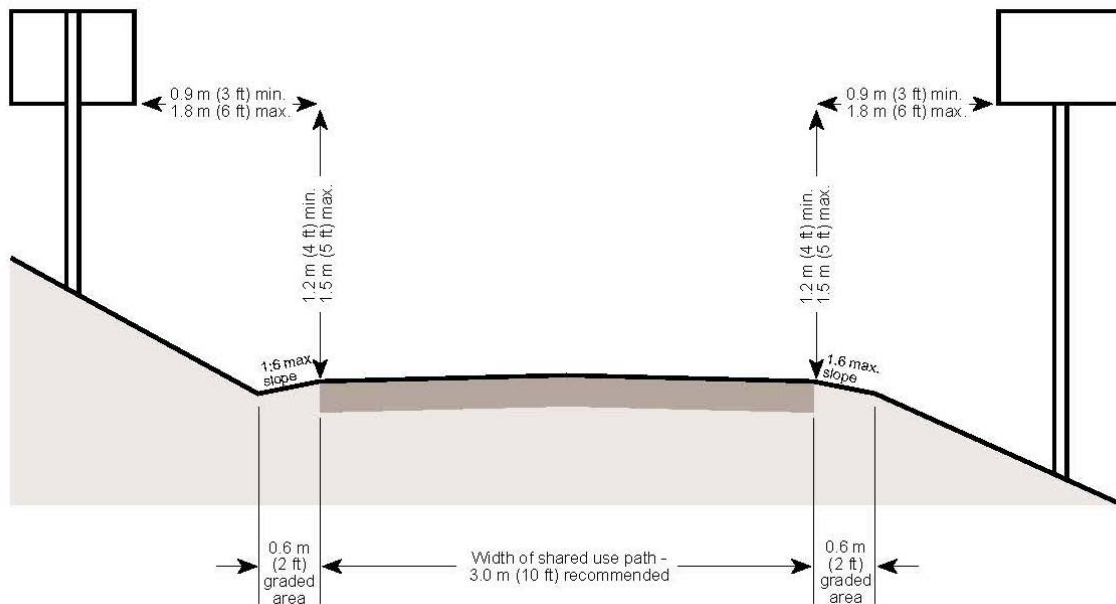
Class I bikeways (bike paths) are facilities with exclusive right of way, with cross flows by motorists minimized. Class I bikeways are typically described as serving "the exclusive use of bicycles and pedestrians." However, experience has shown that if significant pedestrian use is anticipated, separate facilities for pedestrians are one way to minimize conflicts. Motorized bicycles are prohibited on bike paths unless authorized by ordinance or approval of the agency having jurisdiction over the path. Likewise, all motor vehicles are prohibited from bike paths. Signing can strengthen these prohibitions.

1. WIDTHS

Under most conditions, a recommended paved width for a two-way shared use path is 10'. In sensitive ecological areas, however, an 8' trail width is allowed where sight distance and trail alignment are good, expected trail use is low, and access by the occasional trail maintenance vehicle will not cause trail surface damage. Where heavy bicycle volumes are anticipated and/or significant pedestrian traffic is expected, the pavement width of a two-way path should be greater than 10', preferably 12' or more. Another important factor in determining the appropriate trail width is that bicyclists will tend to ride side by side on bike paths, necessitating more width for safe use. A minimum 2' graded area with a maximum 1:6 slope shall be provided adjacent to both sides of the path. A 3' graded area is recommended to provide clearance from poles, trees, walls, fences, guardrails, or other lateral obstructions. Where the paved width is wider than the minimum required, the graded area may be reduced accordingly. However, the graded area is a desirable feature regardless of the pavement width.

2. CLEARANCE TO OBSTRUCTIONS

A minimum 8' horizontal clearance to obstructions shall be provided adjacent to the pavement. A 10' clearance is recommended. Where the pavement width is wider than the minimum required, the clearance may be reduced accordingly; however, an adequate clearance is desirable regardless of the paved width. If a wide path has pavement that is contiguous with a continuous fixed object (i.e. a block wall), a 4" white edge stripe, 12" from the fixed object, is recommended to minimize the likelihood of a bicyclist hitting it. On structures, the clear width between railings shall be the same as the approaching paved path plus the minimum 2' clear areas. The vertical clearance to obstructions across a bridge or structure shall be 10'.



Cross Section of Two-Way Shared Use Path on Separated Right-of-Way - AASHTO Development of Bicycle Facilities

3. INTERSECTIONS WITH HIGHWAYS

Intersections are a prime consideration in bike path design. If alternate locations for a bike path are available, the one with the most favorable intersection conditions should be selected. Where motor vehicle cross traffic and bicycle traffic is heavy, grade separations are desirable to eliminate intersection conflicts. Where grade separations are not feasible, assignment of right of way by traffic signals should be considered. Where traffic is not heavy, stop or yield signs for bicyclists may suffice. Bicycle path intersections and approaches should be on relatively flat grades. Stopping sight distances at intersections should be checked and adequate warning should be given to permit bicyclists to stop before reaching the intersection, especially on downgrades. When crossing an arterial street, the crossing should either occur at the pedestrian crossing, where motorists can be expected to stop, or at a location completely out of the influence of any intersection to permit adequate opportunity for bicyclists to see turning vehicles. When crossing at mid-block locations, right of way should be assigned by devices such as yield signs, stop signs, or traffic signals that can be activated by bicyclists. Even when crossing within or adjacent to the pedestrian crossing, stop or yield signs for bicyclists should be placed to minimize potential for conflict resulting from turning autos. Where bike path stop or yield signs are visible to approaching motor vehicle traffic, they should be shielded to avoid confusion. In some cases, "Bike X-ing" signs may be placed in advance of the crossing to alert motorists. Ramps should be installed in the curbs, to preserve the utility of the bike path. Ramps should be the same width as the bicycle paths. Curb cuts and ramps should provide a smooth transition between the bicycle path and the roadway.

4. DESIGN SPEED

The proper design speed for a trail is dependent on the expected type of use and on the terrain. The minimum design speed for a shared use path should be 20 mph. On unpaved paths, a lower design speed of 15 mph can be used. Similarly, where the grades or prevailing winds dictate, a higher design speed of 25 mph can be used. Installation of “speed bumps” or other similar surface obstructions, intended to cause bicyclists to slow down in advance of intersections or other geometric constraints, shall not be used. These devices cannot compensate for improper design.

5. HORIZONTAL ALIGNMENT AND SUPER-ELEVATION

The minimum radius of curvature negotiable by a bicycle is a function of the super-elevation rate of the pathway surface, the coefficient of friction between the bicycle tires and the surface, and the speed of the bicycle. For most bicycle path applications, the maximum super-elevation rate will be 3%. A straight 2% cross slope is recommended on tangent sections, and ADA guidelines require that cross slopes not exceed 2-3 percent. The minimum super-elevation rate of 2% will be adequate for most conditions and will simplify construction. When transitioning a 3% super-elevation, a minimum 25-foot transition distance should be provided between the end and beginning of consecutive and reversing horizontal curves.

6. STOPPING SIGHT DISTANCE

To provide bicyclists with an opportunity to see and react to the unexpected, a bicycle path should be designed with adequate stopping sight distances. The distance required to bring a bicycle to a full controlled stop is a function of the bicyclist’s perception and brake reaction time, the initial speed of the bicycle, the coefficient of friction between the tires and the pavement, and the braking ability of the bicycle.

7. LATERAL CLEARANCE ON HORIZONTAL CURVES

Bicyclists frequently ride abreast of each other on bicycle paths, and on narrow bicycle paths, bicyclists have a tendency to ride near the middle of the path. For these reasons, and because of the serious consequences of a head-on bicycle accident, lateral clearances on horizontal curves should be calculated based on the sum of the stopping sight distances for bicyclists traveling in opposite directions around a curve. Where this is not possible or feasible, consideration should be given to widening the path through the curve, installing a yellow center stripe, installing a curve ahead warning sign, or some combination of these alternatives.

8. GRADES

Bike paths generally attract less skilled bicyclists, so it is important to avoid steep grades in their design. Bicyclists not physically conditioned will be unable to negotiate long, steep uphill grades. Since novice bicyclists often ride poorly maintained bicycles, long downgrades can cause problems. For these reasons, bike paths with long, steep grades will generally receive very little use. The maximum grade recommended for bike paths is 5%. It is desirable that sustained grades be limited to 2% if a wide range of riders is to be accommodated. Steeper grades can be tolerated for short segments (i.e. up to about 500 feet). Where steeper grades are necessitated, the design speed should be increased and additional width should be provided for maneuverability.

10. STRUCTURAL SECTION

The structural section of a bike path should be designed in the same manner as a highway, with consideration given to the quality of the base soil and the anticipated loads the bikeway will experience. It is important to construct and maintain a smooth riding surface with skid resistant qualities. Principal loads will normally be from trail maintenance and emergency vehicles. Expansive soil should be given special consideration and will probably require a special structural section.

11. DRAINAGE

For proper drainage, the surface of a bike path should have a cross slope of 2%. Sloping in one direction usually simplifies longitudinal drainage design and surface construction, and accordingly is the preferred practice. Ordinarily, surface drainage from the path will be adequately dissipated as it flows down the gently sloping shoulder. However, when a bike path is constructed on the side of a hill, a drainage ditch of suitable dimensions may be necessary on the uphill side to intercept the hillside drainage. Where necessary, catch basins with drains should be provided to carry intercepted water across the path. Such ditches should be designed in such a way that no undue obstacle is presented to bicyclists. Culverts or bridges are necessary where a bike path crosses a drainage channel.

12. LIGHTING

Fixed source lighting reduces conflicts along paths and at intersections. In addition, lighting allows the bicyclist to see the bicycle path direction, surface conditions, and obstacles. Lighting for bicycle paths is important and should be considered where riding at night is expected, such as bicycle paths serving college students or commuters, and at highway intersections. Lighting should also be considered through underpasses or tunnels, and where nighttime security could be a problem. Depending on the location, horizontal illumination levels of 5 lux to 22 lux should be maintained. Light poles should meet the recommended horizontal and vertical clearances. Luminaires and poles should be at a scale appropriate for a pedestrian or bicycle path.

13. SUSTAINABLE TRAIL CONSTRUCTION

Sustainable trails are defined by the US Forest Service as trails having a tread that will not be easily eroded by water and use, will not affect water quality or the natural ecosystem, meets the needs of the intended users and provides a positive user experience, and that does not harm the environment.

Slope, alignment, angle, topographic position and the physical properties of the soils are all important factors in determining sustainability. The trail surfaces (treads) are constantly being changed by a complex set of human caused and natural forces. Compaction, displacement and soil erosion from wind and water are constantly interacting with the trail materials. Some trails are significantly impacted by deer hooves. Natural surface trails are dynamic systems that are constantly being reshaped.

Sustainable Trail Construction

Sustainable trails are defined by the US Forest Service as trails having a tread that will not be easily eroded by water and use, will not affect water quality or the natural ecosystem, meet the needs of the intended users and provide a positive user experience, and that do no harm to the natural environment.

Sustainable trails can be used by a variety of non-motorized users including hikers, trail runners, equestrians, off-road cyclists, and cross-country skiers. Motorized vehicles are normally prohibited unless operated by trail crews or a land manager.

Prior to constructing a new trail, need for the trail should be determined based on condition and routes of existing trails. Surveys should be conducted of trail users to determine user expectations and rudimentary design guidelines.

Natural surface trails are dynamic systems that are constantly being re-shaped by a complex set of human-caused and natural forces. To be sustainable, trails must strike a balance between multiple elements. Type of use, amount of use and user behavior combine with natural factors to determine trails impacts and long-term sustainability.

The following design guidelines can be adapted to specific site conditions including soil texture, slope, topographic position, existing vegetation, etc.

The guidelines are most useful for the planning and construction of new trails, but can also be useful for restoration and reconstruction of existing trails.

A. Width

Natural surface trails are usually a “singletrack” trail, with a tread width is typically 12”-36” . Trails are designed for users to travel single file. Overall clearing limits will be roughly three times the width of the tread, and the trail way will be roughly twice the width of the tread. Singletrack clearing limits are typically 6 feet wide and 8 feet high.

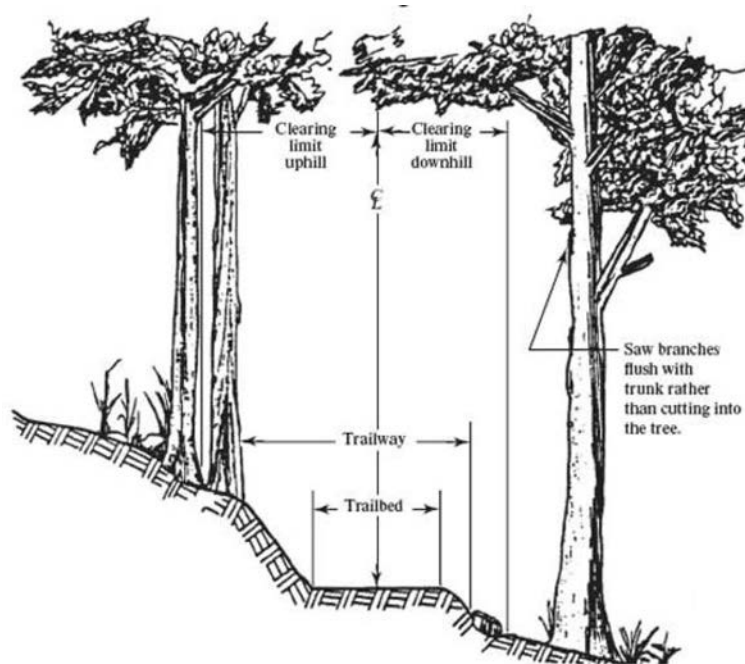
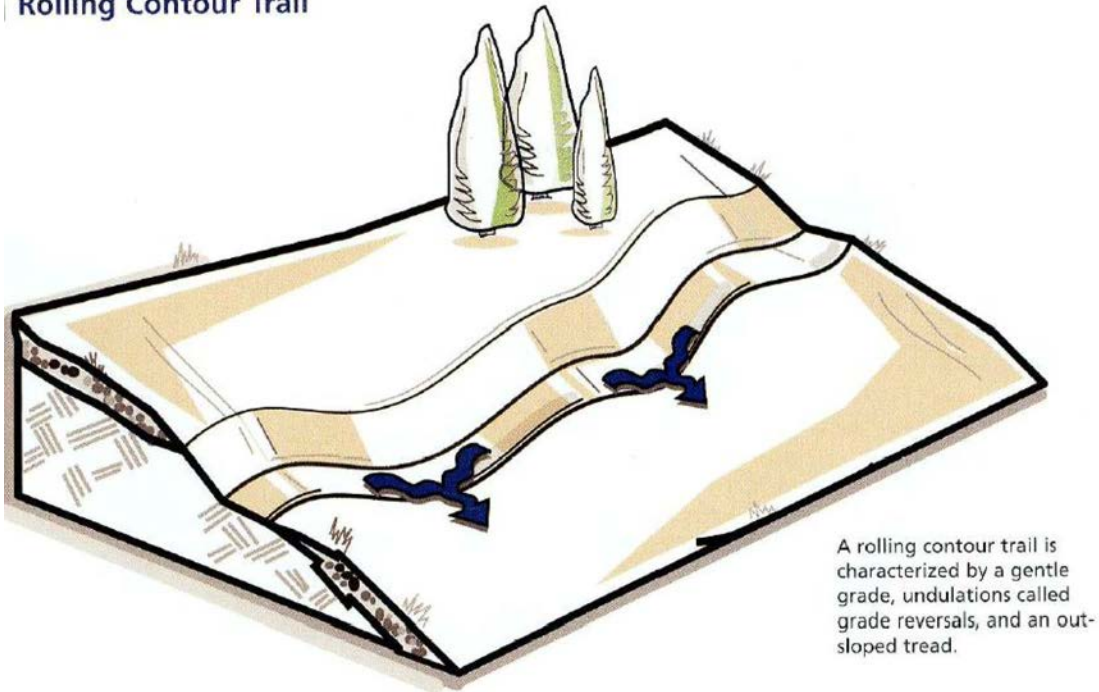


Image from "Trail Construction and Maintenance Notebook: 2007 Edition"

B. Rolling Contour Trails

Build paths to traverse hills cross-slope, characterized by a gentle grade and utilizing grade reversals and an outsloped tread. Trails should avoid following fall lines at all costs, and should always be constructed on at least a slight slope to allow for drainage.

Rolling Contour Trail



C. Elements of Sustainable Trails

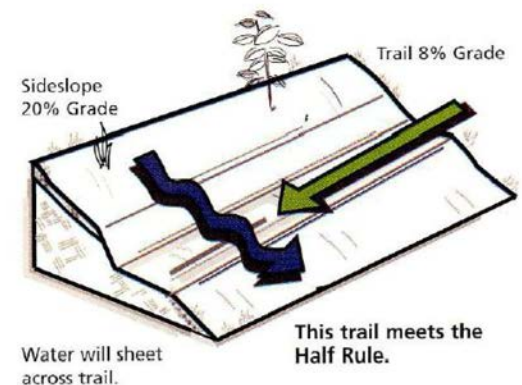
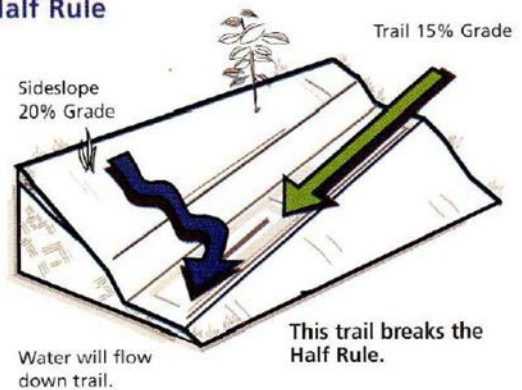
1. The Half Rule

Trail grade should never exceed half the grade of the hillside the trail traverses. Trails that exceed half the sideslope are considered fall line trails and funnel water, destroying the trail and causing greatly increased erosion.

2. The Ten Percent Average Guideline

Trail grade should average 10 percent or less for the length of the trail. Average grade should be calculated by dividing total elevation gain by total length, multiplied by 100. For trail conditions without sustained

Half Rule



elevation gain, average trail-segment grades should be calculated in areas where the trail climbs. An average 10 percent slope will allow for a stable, erosion free slope for most soil types caused by both water and users.

3. Maximum Sustainable Trail Grades

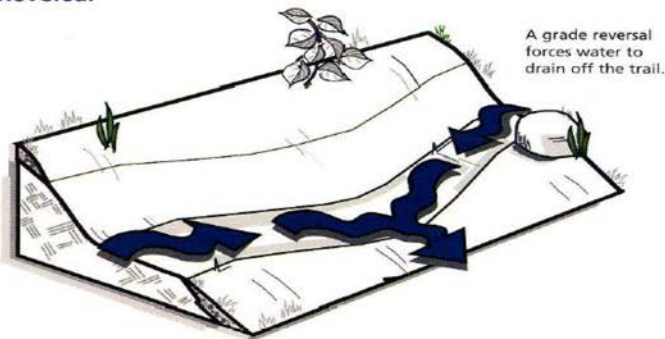
Maximum grades are considered to be the steepest section trail 10 feet or more in length. Maximum grades varies depending on the following factors:

- The grade of the existing sideslope
- Existing soil type
- Existing solid rock
- Annual rainfall amount
- Liberal use of grade reversals
- User groups / numbers
- Designed difficulty

4. Grade Reversals

Grades reversals are areas of a climbing trail levels, changes directions, drops slightly down slope for 10-50 linear feet, and rises again. Grade reversals should be used on any trail climbing or traversing a sideslope, and should occur on average every 20-50 feet.

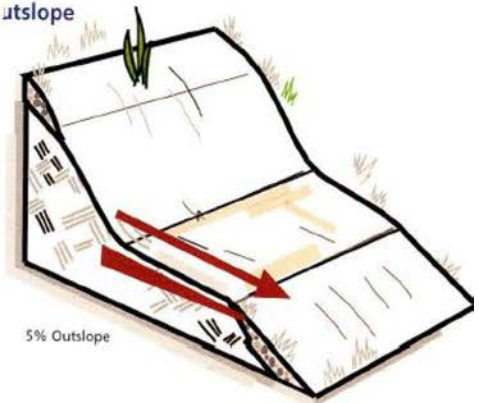
Grade Reversal



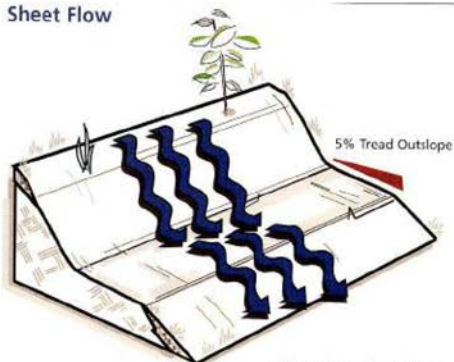
5.Outslope

Trails that traverse or climb a sideslope should always be graded so that the tread slopes slightly down and away from the high side of the slope. Creating an outslope will allow water to sheet flow across the trail and down the slope rather than funneling and creating ruts. A 5-percent cross slope is considered best when grading an outslope. If the soil type is loose where the trail is constructed, numerous grade reversals will be necessary to avoid erosion and maintain the tread and outslope.

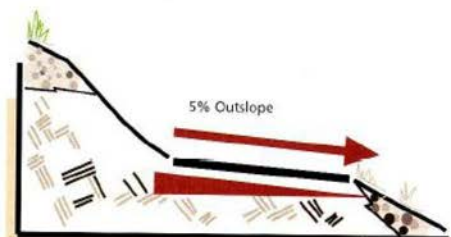
Outslope



Sheet Flow



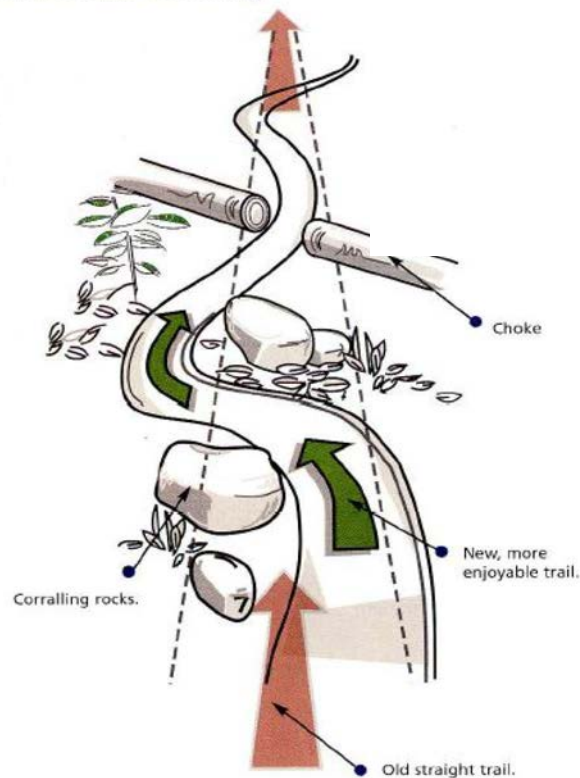
Above: An outsloped trail tread allows water to drain in a gentle, non-erosive manner called "sheet flow."



D. Design Speed

Managing user speed on trails designed for mountain bikers is best done with design elements. Trails which are constructed with many turns and grade changes will allow users to feel that they are moving faster than they are. Large, concrete objects should be used to define trail edges and turns; often boulders, logs, and plants work best. Objects should serve as both physical and visual barriers. Chokes should be created when the trail is approaching a point where users will need to slow down; examples include intersections, stream crossings, or merging trails. Chokes are points in the trail where the tread narrows to force reductions in speed. These areas should appear to be natural and well defined to avoid users defining their own paths.

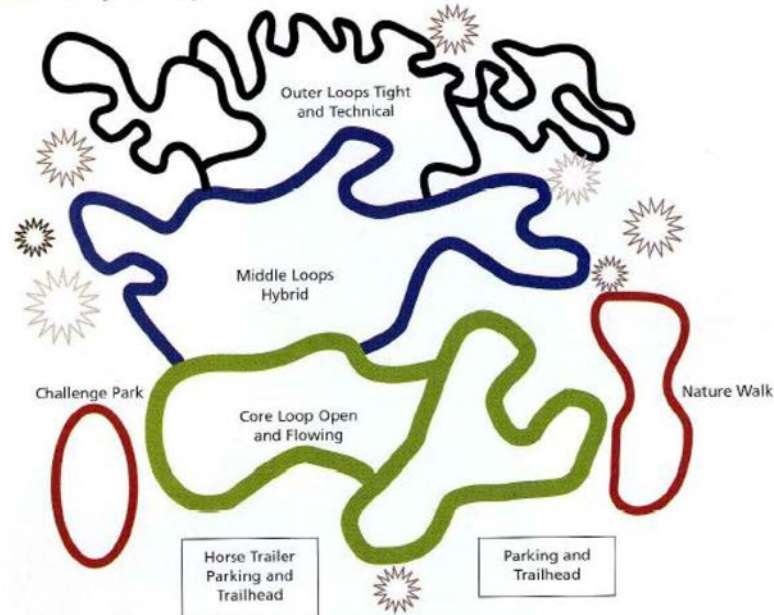
Chokes and Corraling



E. Trail System

Unless designing a single-user trail system, a system of looped trails should be designed to accommodate a variety of users. Main entry trails should be smooth and wide to appeal to all users, and provide either a standalone loop for beginners or a jump-off point for more advanced users. These primary trails may have a gravel surface to provide for accessibility and wet-weather use. Designing a trail system with multiple trailheads also allows for better control of user-conflicts and spreads traffic more evenly over a trail system. Restricting challenging trails to secluded and more difficult terrain will please all site users. Maintaining turns and choke points along all trails will continue to control speed and cut down further on potential user-conflicts.

Stacked Loop Trail System



F. Bench Cut Trails

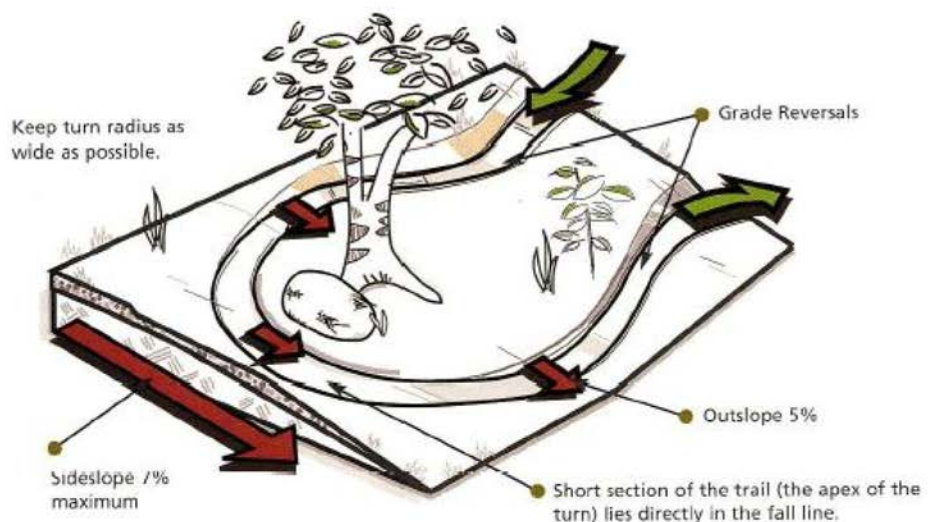
To create a durable and sustainable tread, creating a full bench trail is the most recommended option. The entire trail surface is compacted, native mineral soil with rounded and compacted backslope and downslope fill. Partial bench cut treads are a second option but should only be constructed as a last resort, as half of the tread is compacted fill, which does erode easily over time and often fails to compact. Partial bench treads are not considered to be a form of sustainable trail construction.

G. Turns

1. Climbing Turns

To be used on sideslopes of 7 percent or less as the trail will briefly follow the fall line, increasing the chance for erosion. Design the turning radius with a minimum width of 20 feet with natural barriers placed on the inside of the trail curve to control users speed and keep them on trail. Construct grade reversals above and below the curve to minimize water flow on the fall line. Construction of a choke point on the high side of the curve will also lessen user-wear erosion by reducing user speed on the curve.

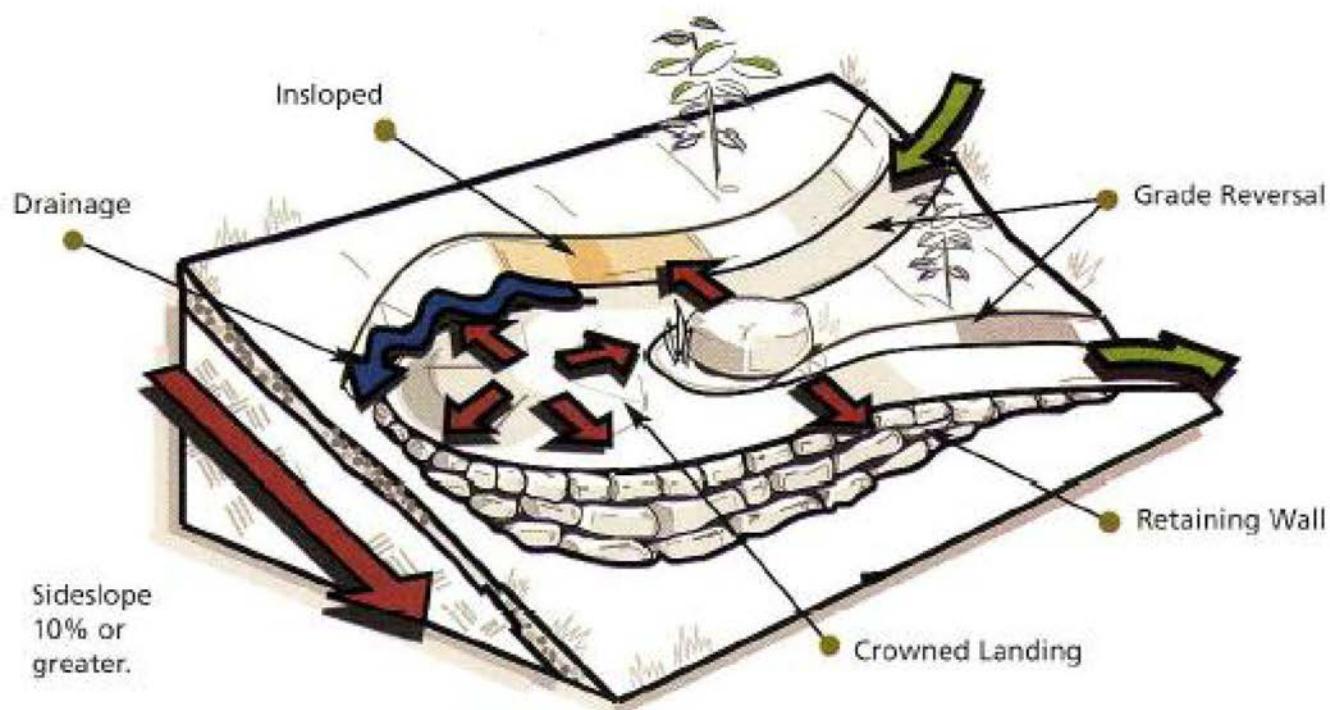
Climbing Turn



2. Switchbacks

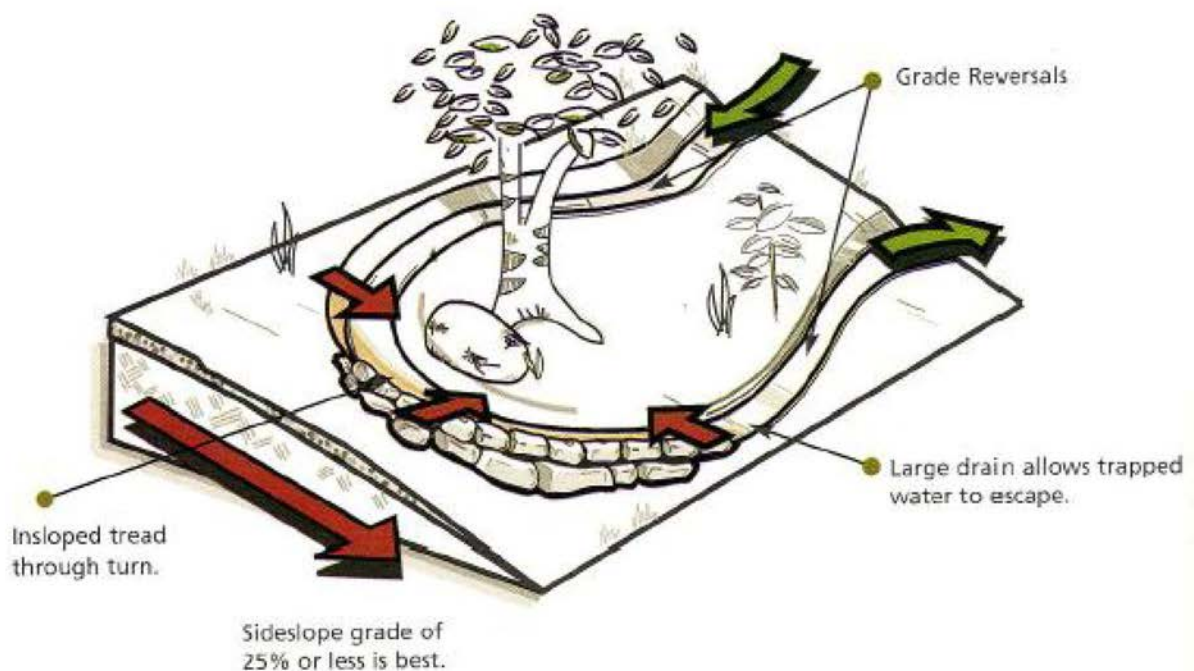
A rolling crown switchback is similar to a climbing turn but is used on steep slopes and involves construction of a retaining wall to create a mounded, level platform at the apex of the curve. Construct the upper trail tread insloped toward the high side of the slope to drain water across the top of the curve and prevent it from sheeting to the lower trail. The lower tread should be outsloped as in usual construction. Fill from excavating the upper tread is used to construct the turning platform, and is compacted and mounded for even drainage. A retaining wall should be constructed of stone found on site or large timbers, preferably treated or found on site. Grade reversals should be used above and below the curve to minimize water flow on the switchback itself. Switchbacks should be staggered as a trail ascends a slope to prevent users from creating shortcuts and disperse water flow more evenly along the hill.

Rolling Crown Switchback



3. Insloped Turns

In situations where users are or are predicated to cause lateral displacement of tread material, construction of an insloped turn is recommended. Properly designed and constructed insloped turns will improve tread life by reducing skidding and soil displacement by improving user flow along the trail. Curve banks of an insloped turn should be very well compacted and constructed in layers to prolong tread life and minimize soil displacement. A well designed grade reversal above the curve is necessary to reduce water flowing down slope. Construct a choke point above the turn as users can traverse an insloped turn with greater speed than switchbacks or climbing turns. Vegetation should be kept low in the center of the curve to maintain sightlines from the upper trail to lower trail.

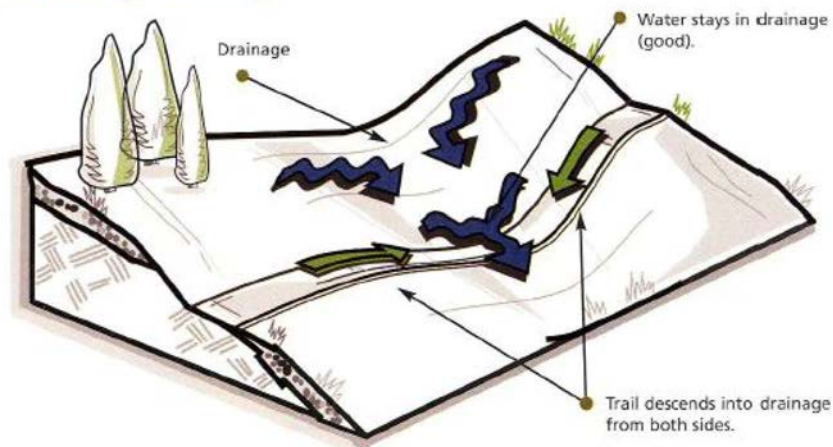


Insloped Turn

H. Water Crossings

If at all possible, water crossings should be avoided or minimized due to water quality issues, impact to stream or river ecosystems, increased chance of erosion, cost, and safety of users and trail crews. If a water crossing is necessary, it should be carefully sited at a riffle point and where banks slope gently to the water. Sideslopes where water crossings are located should be a maximum of 8 percent. Trails entering a water crossing should always descend into the crossing and include well designed and constructed grade reversals to prevent sediment from washing down the trail into the watercourse.

Proper Drainage Crossing



1. Fords

Well-constructed fords in streams that have a depth of less than 3 feet during high water will last for decades with minimal maintenance and will have little impact on the surrounding ecosystem if properly constructed. Fords should be built in wide, shallow portions of the watercourse and mimic the bed and width of the stream. The constructed tread should be level and made of rock found on site. The US Forest Service recommends placing rocks a minimum of 130 lbs downstream of the crossing to keep the tread in place. Rocks of a similar size should be placed in the tread 12 inches apart, upstream, to provide a stepping-stone crossing. The tread should be constructed of gravel and rock smaller than 3 inches in diameter. Armoring the approaches to the crossing with rock for a minimum of 12 inches past the high water line will further minimize erosion.

2. Culverts

Culverts can be successfully used in trail construction when properly sized and designed. Culverts must be sized to match or exceed the channel width, match existing slope, and should be sunk into the stream bed to allow a natural bed surface to form. It is imperative that a culverts width matches or exceeds the channel width to prevent flow constriction, increased stream velocity, and blockage. Culverts can be constructed of pipe or of rock found on site. Culverts are among the most often failing water crossing, and should be carefully designed and maintained annually to prevent debris accumulation and blockage. A minimum of 12 inches of fill above the crossing is desired, and large boulders should be placed upstream to armour the edges of the crossing to prevent undercutting of the tread and water flow around the pipe.

3. Bridges

In areas where the watercourse is too deep or wide to allow for safe construction of a ford or culvert, bridges may be necessary. Bridges may range from log foot bridges to complex suspended or truss structures. Use of handrails is always recommended no matter a bridge's length, and an engineer should inspect all bridge plans prior to construction and use.

I. Reassurance Markers

1. Trail Blazes

Trail blazes should be used if the correct trail path is not obvious or if it may be covered with snow at any point of the year. Blazes should be placed as often as necessary, and should be clearly visible from any point where the trail could be lost.

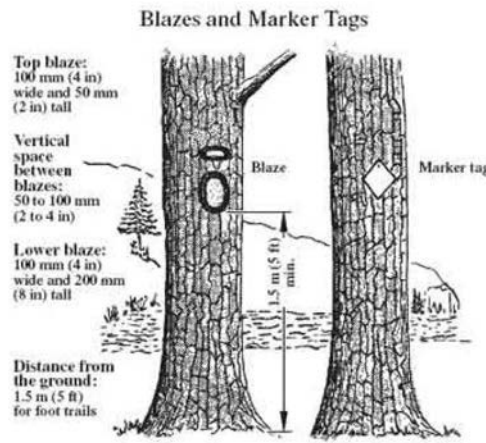


Image from "Trail Construction and Maintenance Notebook: 2007 Edition"

2. Cairns

Cairns are carefully constructed pyramids of rock that should be a minimum of 35 inches tall. They used be used in open areas where low visibility or snow cover may cause the tread to become difficult to follow or lost.

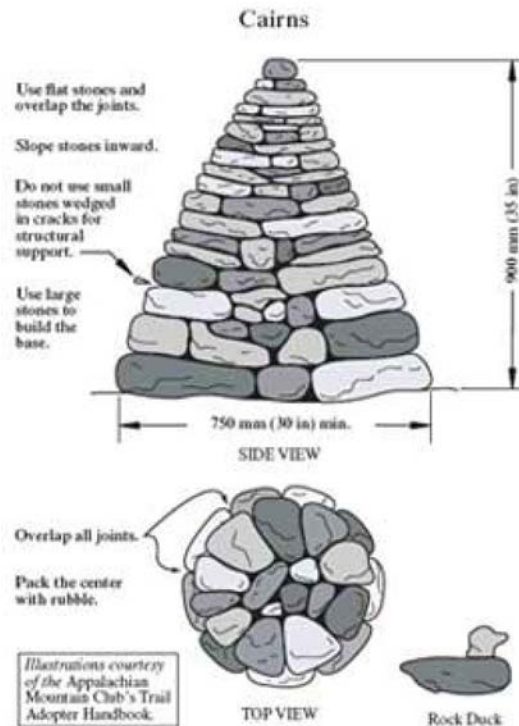


Image from "Trail Construction and Maintenance Notebook: 2007 Edition"

References:

Hesselbarth, Woody. Trail Construction and Maintenance Notebook: 2007 Edition. July 2007. <http://www.fhwa.dot.gov/environment/fspubs/07232806/index.htm>

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All images from Trail Solutions unless otherwise noted.



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN

APPENDIX B POTENTIAL AREAS OF CONFLICT BETWEEN USERS & TRAIL USER GUIDELINES



POTENTIAL AREAS OF CONFLICT BETWEEN USERS

(Derived from “Conflicts on Multiple Use Trails” by FHWA and the National Recreational Trails Advisory Committee)

Multi-use trails, when they are well designed, carefully maintained, and effectively managed, are a significant community resource. However, trails can have a number of conflicts and challenges, which can be addressed by physical design and management responses. Potential conflicts on the possible future Hojack Trail include conflicts between different types of trail users, conflicts between motorists and trail users at road crossings, and conflicts between trail users and property owners. The following sections discuss ways to manage conflict.

1. Managing Conflict on Multi-Use Trails

The challenges faced by multiple use trail managers can be broadly summarized as maintaining user safety, protecting natural resources, and providing high quality user experiences. These challenges are interrelated and cannot be effectively addressed in isolation. To address these challenges, managers can employ a wide array of physical and management options such as trail design, information and education, user involvement, and regulations and enforcement.

The existing literature and practice were synthesized into the following 12 principles for minimizing conflict on multi-use trails. Adherence to these principles should help improve sharing and cooperation on multi-use trails.

Recognize Conflict as Goal Interference. Trail conflict is typically related to human behavior rather than inherent incompatibility among different trail uses.

Provide Adequate Trail Opportunities. Offer adequate trail mileage and provide opportunities for a variety of trail experiences. This will help reduce congestion and allow users to choose the conditions that are best suited to the experiences they desire.

Minimize Number of Contacts in Problem Areas. Each contact among trail users (as well as contact with the evidence of others) has the potential to result in conflict. So, as a general rule, reduce the number of user contacts whenever possible. This is especially true in congested areas and at trailheads. Disperse use and provide separate trails where necessary after careful consideration of the additional environmental impact and lost opportunities for positive interactions this may cause.

Involve Users as Early as Possible. Identify the present and likely future users of each trail and involve them in the process of avoiding and resolving conflicts as early as possible, preferably before conflicts occur. For proposed trails, possible conflicts and their solutions should be addressed during the planning and design stage with the involvement of prospective users. Likewise, existing and developing conflicts on present trails need to be faced quickly and addressed with the participation of those affected.

Understand User Needs. Determine the motivations, desired experiences, norms, setting preferences, and other needs of the present and likely future users of each trail. This “customer” information is critical for anticipating and managing conflicts.

Identify the Actual Sources of Conflict. Help users to identify the specific tangible causes of any conflicts they are experiencing. In other words, get beyond emotions and stereotypes as quickly as possible, and get to the roots of any problems that exist.

Work with Affected Users. Work with all parties involved to reach mutually agreeable solutions to these specific issues. Users who are not involved as part of the solution are more likely to be part of the problem, both now and in the future.

Promote Trail Etiquette. Minimize the possibility that any particular trail contact will result in conflict by actively and aggressively promoting responsible trail behavior. Use existing educational materials or modify them to better meet local needs. Target these educational efforts, get the information into users' hands as early as possible, and present it in interesting and understandable ways.

Encourage Positive Interaction Among Different Users. Trail users are usually not as different from one another as they believe. Providing positive interactions both on and off the trail will help break down barriers and stereotypes, and build understanding, good will, and cooperation. This can be accomplished through a variety of strategies such as sponsoring "user swaps," joint trail-building or maintenance projects, filming trail-sharing videos, and forming Trail Advisory Councils.

Favor "Light-Handed Management". Use the most light-handed approaches that will achieve area objectives. This is essential in order to provide the freedom of choice and natural environments that are so important to trail-based recreation. Intrusive design and coercive management are not compatible with high-quality trail experiences.

Plan and Act Locally. Whenever possible, address issues regarding multi-use trails at the local level. This allows greater sensitivity to local needs and provides better flexibility for addressing difficult issues on a case-by-case basis. Local action also facilitates involvement of the people who will be most affected by the decisions and most able to assist in their successful implementation.

Monitor Progress. Monitor the ongoing effectiveness of the decisions made and programs implemented. Conscious, deliberate monitoring is the only way to determine if conflicts are indeed being reduced and what changes in programs might be needed. This is only possible within the context of clearly understood and agreed upon objectives for each trail area.

Trail managers recognize trail conflicts as a potentially serious threat. Many are optimistic, however, and feel that when trail conflict situations are tackled head on and openly they can become an opportunity to build and strengthen trail constituencies and enhance outdoor recreation opportunities for all users.

2. Challenges Faced by Multiple-Use Trail Managers

The manager of any trail faces many challenges, usually within the context of too few staff and too little money. The underlying challenges faced by trail managers, however, remain the same regardless of the type of trail and whether it serves a single group or many different ones. As described previously, trail managers attempt to: maintain user safety, protect natural resources, and provide high-quality user experiences. These issues can become more complex and more difficult to manage as the number and diversity of trail uses increase, but the challenges and the tools available to address them remain basically the same.

Maintaining User Safety. Unsafe situations or conditions caused by other trail users can keep visitors from achieving their desired trail experience. This goal interference due to safety concerns is a common source of conflicts on trails. There are a number of threats to user safety that can occur on trails. Some of these include:

- Collisions and near misses among users and/or their vehicles
- Reckless and irresponsible behavior
- Poor user preparation or judgment
- Unsafe conditions related to trail use (i.e. deep ruts, tracks on snow trail)
- Unsafe conditions not related to trail use (i.e. obstacles, terrain, weather, river crossings)
- Poor trail design, construction, maintenance or management
- Other hazards (i.e. bears, lightning, cliffs, crime)

To help maintain user safety on trails, planners and managers can attempt to control or influence many factors, including the following:

- User speed (often has more to do with speed differential than speed itself)
- Mass of user and vehicle (if any)
- Sight distances
- Trail width
- Trail surface
- Congestion (i.e. number of users per mile)
- Users overtaking one another silently or without warning
- Trail difficulty (i.e. obstacles, terrain, condition)
- User skill level and experience
- User expectations and preparedness (i.e. walkers who understand they may see bicycles on a particular trail can better prepare themselves for possible encounters)
- Emergency procedures
- On-site management presence

Protecting Natural Resources. Resource impacts such as soil erosion, damaged vegetation, polluted water supplies, litter, vandalism, and many other indications of the presence of others can lead to feelings of crowding and conflict. These feelings can occur even when there is no actual contact among different trail users. A hiker's enjoyment might be reduced by seeing all-terrain vehicle (ATV) tracks near a wilderness boundary, for example, or an equestrian user might be upset to see many cars with bike racks at the trailhead before beginning a ride.

Minimizing environmental impacts is a high priority for resource and recreation managers. Natural resources include soils, wildlife, vegetation, water, and air quality. Historic, cultural, and archaeological resources are also vulnerable to impacts caused by trail use. A considerable amount of trail manager time and resources is spent attempting to minimize impacts affecting each of these resources. All trail use, regardless of travel mode, impacts natural resources. Research indicates that the following factors influence the amount of resource damage caused by trail use:

- Soil characteristics: type, texture, organic content, consistency, depth, moisture (i.e. muddy versus dry), temperature levels (i.e. frozen terrain versus thawed)
- Topography and slope of trail surface
- Position in land form (i.e. northern versus southern exposure)
- Elevation
- Type of ecosystem
- Type of vegetation and terrain beside trail (influencing widening)
- Quality of trail design and construction (especially regarding drainage)
- Level of maintenance (i.e. effectiveness of drainage)
- Use: type, frequency, season, concentration/dispersal
- Type of vehicle
- Difficulty of terrain
- Up or down hill traffic direction
- Style of use or technique (i.e. skidding tires versus controlled riding)

Providing High-Quality User Experiences. Researchers believe that people who participate in outdoor recreation activities do so because they hope to gain certain rewards or outcomes. These outcomes consist of a wide variety of experiences such as solitude, challenge, being with friends and family, testing skills, experiencing nature, and others. The trail experience that is desired varies a great deal across activities, among people participating in the same

activity, and even within the same individual on different outings. In fact, recreational enthusiasts are often seeking to satisfy multiple desires in a single outing. Recreational behavior is understood to be goal-directed and undertaken to satisfy desires for particular experiences. The quality of these experiences is often measured in terms of user satisfaction.

In a perfect world, land managers could provide nearby, high-quality opportunities for every type of experience trail users might possibly seek. This is rarely possible, of course. Limited budgets, limited amounts of land, and the sheer number of users with different preferences make it impossible to perfectly satisfy all people all the time. Flexibility, compromise, and common courtesy on the part of all users are necessary to maximize the opportunities for high-quality experiences for everyone.

3. Physical Responses

Proper trail design, layout, and maintenance (or redesign and reconstruction when necessary) are essential for user safety and resource protection, and are important contributors to user satisfaction as well. Proper design addresses more than aesthetics and minimized resource impacts. Design can be used to encourage trail users to behave in appropriate ways. Influencing proper behavior through the subtleties of design is preferable and often more effective than attempting to do so, after the fact, through educational programs or regulations. For example, it is easier and more effective to prevent shortcutting of switchbacks by designing climbing turns in rugged, well-screened areas than by posting educational signs at poorly designed switchbacks.

Different users often have different needs and desires regarding physical trail attributes such as surface, slope, length, sight distances, and amenities. Various standards and recommendations are available for different user groups. These needs and preferences are far from universal even within one user group, however. Walkers, joggers, runners, hikers, people walking dogs, and people pushing strollers are all pedestrians, for example, but they do not have the same needs and desires in terms of physical trail attributes or trail settings. The best physical responses will always be dictated by specific local conditions. Managers and planners should identify the present and likely future trail users and determine the needs and desires of those users. Users of different ages, motivations, activity preferences, etc., will have different physical trail needs and preferences. Ryan (1993), for example, suggests hosting a community design workshop for proposed rail-trails to identify these needs and preferences.

Providing separate trails for different users groups has many drawbacks. They point out that it can be expensive, cause resentment, be difficult to enforce, and limit opportunities for communication and cooperation among users. When separate trails are necessary, they suggest encouraging rather than requiring single use and explaining the reasons for this strategy at trailheads. This approach combines physical design with information and education efforts. Advocates of multi-use trails see providing separate trails as a last resort. They feel positive interaction among users on the trail is best way to foster communication, understanding, and a strong, cooperative trail community.

Physical design solutions include:

- Paint the centerline on heavily used multi-purpose trails and greenways. This can help communicate that users should expect traffic in both directions and encourage users to travel on the right and pass on the left.
- Screen trails for sight, sound, and smells (i.e. exhaust fumes from motorized vehicles). Include physical and visual buffers in the design by using natural features such as topography, vegetation, or the sound of water to insulate users from one another when possible. Add buffers as needed on existing trails.
- Provide separate trailheads for different users.
- Separate uses at trailheads and for the first (most crowded) stretches of the trail. These separate segregated trails could then converge, perhaps a mile from the trailhead, after users are more spread out. On the other hand, Attila Baloty of the National Park Service advocates forcing all trail users to share the same trail for some distance (i.e. one mile) before having single use or restricted-use trails diverge from the

main trail if necessary. He believes that users will only learn to understand one another and share trails if encouraged to do so. Some may not share unless forced to do so.

- Consider adequate sight distances in the design process.
- Build trails wide enough to accommodate the expected use. Many sources and recommended standards are available for various user groups.
- Build trails wide enough for safe passing, and/or provide pullout areas.
- Design and construct trails to minimize erosion.

TRAIL USER GUIDELINES

Non-motorized trails are very popular, which results in congestion and potentially hazardous situations. Regardless of whether you are bicycling, walking, jogging or skiing, if you follow the same rules as everyone else, your trip will be safer and more enjoyable. Help make the multi-use trails safe for everyone by using the following guidelines:

BE COURTEOUS. All trail users, including bicyclists, joggers, walkers, wheelchairs, and skiers, should be respectful of other users regardless of their mode, speed, or level of skill.

BE PREDICTABLE. Travel in a consistent and predictable manner. Always look behind you before changing positions on the trail.

DON'T BLOCK THE TRAIL. When traveling in a group with other trail users or your pets, use no more than half the trail so as not to block the flow of other users.

KEEP RIGHT. Stay as near to the right side of the trail as is safe, except when passing another user.

PASS ON THE LEFT. Pass others, going your direction, on their left. Yield to slower and on-coming traffic. Use hand signals to alert those behind you of your moves. Look ahead and back to make sure the lane is clear before you pull out and pass. Pass with ample separation and do not move back to the right until safely past. Remember: children and pets can be unpredictable.

STOPPING. When stopping, move off of the trail. Beware of others approaching you from behind and make sure they know you are pulling over.

GIVE AUDIBLE WARNING BEFORE PASSING. Give a clear signal by using voice, bell or horn before passing. Give the person you are passing time to respond. Watch for their reaction. So that you can hear signals, don't wear headphones on the trail.

OBEY ALL TRAFFIC SIGNS AND SIGNALS. Use extra caution where trails cross streets. Stop at all signs and intersections and be cautious when crossing driveways. When entering or crossing a trail, yield to traffic on the trail.

USE LIGHTS AT NIGHT. Be equipped with lights when using a trail at any time from dusk to dawn. Bicyclists should have a white light visible from five hundred feet to the front and a red or amber light visible from five hundred feet to the rear. Other trail users should have white lights visible from two hundred fifty feet to the front, and a red or amber light visible from two hundred fifty feet to the rear.

DON'T USE A TRAIL UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. Don't overestimate the safety of any trail. You may need all of your reflexes quickly, so it is important that they are not impaired.

BE RESPECTFUL OF PRIVATE PROPERTY. Trails are open to the public, but often the land on the side of the trail is private property. Please respect all property rights.

CLEAN UP LITTER. Do not leave glass, paper, cans, plastic, or any other debris on or near a trail. If you drop something, please remove it immediately.

RECOGNIZE WHEN YOU HAVE OUTGROWN TRAILS. Trails have engineering and design limits. If your speed or style endangers other users, check for alternative routes better suited to your needs. Selecting the right location is safer and more enjoyable for all concerned.



CATTARAUGUS COUNTY **COUNTYWIDE** TRAIL SYSTEM PLAN

APPENDIX C COMMUNITY INPUT





Cattaraugus County

Department of Economic Development, Planning & Tourism

Crystal J. Abers, Director

Cattaraugus County Trails System Advisory Committee County Center, Little Valley, NY November 17, 2016 Meeting

Those in Attendance:

Name

Jim Allen
Ben Anderson
Len Brainard
Josh Bridge
Bill Dibble
John Eaton
Holly Fischer
Bob Fischer
Barb George
Carl George
Joe Langianese
David Paradowski
Jon Sundquist
Missy Whittington
Quinn Wright

Organization

WNY Mountain Bicycling Association
Seneca Nation of Indians
Cattaraugus County Equine Advisory Committee
USFS Allegheny National Forest
Allegany Trails, Inc.
Portville Trails Association
River Trail/Portville Planning
River Trail/Portville Planning
Creekside Roundup
Creekside Roundup
Allegheny National Forest
NYSDEC
WNY Mountain Bicycling Association
Catt/Chaut Chapter of the NYS Horse Council
Finger Lakes Trail Conference

Consultant: Tom Robinson from Barton & Loguidice


Guest: Rick Miller, Olean Times Herald

Cattaraugus County Dept. of Economic Development, Planning & Tourism staff:
Crystal Abers, Paul Bishop, Ginger Malak, Kate O'Stricker, Becky Smith



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I. Welcome

Ginger Malak opened the meeting at 7:00 pm and thanked everyone for attending. She asked everyone to please sign the sign-in sheet.

Mrs. Malak had the following remarks before introducing the speaker:

“Well here we are, ready to begin the development of a Countywide Trails System Plan. It has taken us a long time to get here, but it will be well worth it. Our first meeting for trails was held in October 2014, at which time the Cattaraugus County Trails System Advisory Committee was established. In 2015, we applied for a grant from the Appalachian Regional Commission and recently received approval. We have hired Barton & Loguidice to help us with the Plan and we are happy that they are here tonight to get us started. I am also pleased to have so many of our Committee members here, as the Plan will need your input and help as we go along. So thank you all for coming. Tom Robinson is here from Barton & Loguidice to start us off.”

II. County-Wide Trails System

Tom Robinson from Barton & Loguidice gave a PowerPoint presentation with the following slides:

- Firm Overview
- Project Team
- Trail Planning Experience
- Connectivity – Sustainability – Safety
- Project Example: Silver Lake Trail Network in Perry, NY
- Balancing Solitude and Security
- Existing Conditions – Inventory & Analysis
- Project Example: Monroe County Bay Parks Improvements in Rochester, NY
- Project Example: Tryon Park & Irondequoit Bay Park West – Shared Use Trails
- Trail Assessment Criteria
- The Benefits of Sustainable Trails
- Sustainable Trail Design Guidelines
- Data Acquisition
 - Online Survey
 - Crowdsourcing Using Web GIS
 - Mapillary
- Public Involvement
- How We Engage Community
- Social Media
- Location Based Engagement
- Feasibility Assessments/Prioritization
- Phasing – Implementation – Funding
- Preliminary Project Schedule
- Regional Trails Cross Through Cattaraugus County
- Existing and Proposed Horse Trails in Cattaraugus County

Mr. Robinson asked for input from the Committee in terms of thoughts and questions regarding the development of the Plan. The following are abbreviated comments made by those present:

Carl and Barb George: Work with DEC.

Jim Allen: Healthy aspect, attract people to the County and have businesses prosper and publicize their trails.

Jon Sundquist: Tremendous amount of data; working with DEC; good handle on inventory of our trails; funding opportunities.

Missy Whittington: Connectivity - snowmobile groups have connected the two counties with a bridge across the dredge; continuity of signage for tourism; trails on DEC lands; PA has trail towns; assessment of how the Committee can get ready for accommodating trails.

Bill Dibble: Connectivity; Ellicottville to Little Valley to Salamanca; State Park snowmobile to PA; Letchworth to Allegany State Park; Allegheny River development should be pushed east...through PA.

Ben Anderson: He heads up the recreational trail development for the Nation; connectivity; capitalize on tourism potential; preserving cultural and heritage; snowmobile access to South Salamanca across Allegheny; ATV trails; find funding; PA has had success in this.

Quinn Wright: Overview of the Finger Lakes/North County Trail; 10% in Cattaraugus County (most certified trails); bridges are important (across Allegheny River on SNI lands).

Josh Bridge: Connectivity; over 1,000 miles of trails; looking at regionalism; compliment not compete; ATV trails (Hatfield and McCoy Trail).

Joe Langianese: Looking for ideas; how do you maintain the trails you have?

Dave Paradowski: All types of trails; no ATV trails, except for accessibility of the disabled; sustainability, connectivity, safety; date limitations; maintained by volunteers; standardized kiosks; registration and trails use that they don't have a handle on.

Holly and Bob Fischer: Allegheny River Plan; working on ADA compliant boat launch; Pfeiffer Nature Trails have many trails; great destinations as a part of the trails promotion.

John Eaton: Southeast corner of the County.

III. Member Reports

On behalf of the Allegheny River Public Access & Recreation Plan, Cattaraugus County Department of Economic Development, Planning and Tourism was asked to obtain feedback from the Committee on the Allegheny River Corridor.

The goals of this session were:

- To encourage group conversation about the Allegheny River Public Access & Recreation Plan and the desired outcome for its future.
- To identify existing regional assets and opportunities.
- To identify existing regional weaknesses and challenges.

Kate O'Stricker led the group discussion on the following questions:

- What are the strengths/ assets of the Allegheny River Corridor?
- What are the weaknesses/ challenges of the Allegheny River Corridor?
- What is your vision over the next ten years for the future of the Allegheny River Corridor?
- What are your recommendations for the Allegheny River Corridor?

IV. Open Forum

No other comments were made.

V. Upcoming Meetings and Events

No meetings or events were announced.

VI. Next Meeting

Ginger Malak reported that the next meeting would normally be scheduled for January 19, 2017. However, it will depend on whether there is anything to report in regard to the progress of the Plan or other business. Committee members will be notified as to the date of the meeting.

VII. Adjournment

The meeting was adjourned at 9:00 pm.

Cattaraugus County

Department of Economic Development, Planning & Tourism

Crystal J. Abers, Director

Cattaraugus County Trails System Advisory Committee County Center, Little Valley, NY March 16, 2017 Meeting

Those in Attendance:

Name

Jim Allen
Len Brainard
Luke Brainard
Josh Bridge
Julie Chartreau
Jody Clark
Patrick Dove
John Eaton
Kori Eaker
Holly Fischer
Bob Fischer
Bev Jones
Gerri Jimerson
Rick LeFeber
Tom Livak
Anne Lynch
Linda Murphy
Melinda Nichols
Phil Nickerson
Ainsley Smith
Veronica Weber
Quinn Wright

Organization

WNY Mountain Bicycling Association
Cattaraugus County Equine Advisory Committee
Cattaraugus County Equine Advisory Committee
USFS Allegheny National Forest
Town of Carrollton
Seneca Nation of Indians
NYS Parks/Allegany State Park
Portville Trails Association
Cattaraugus County Equine Advisory Committee
River Trail/Portville Planning
River Trail/Portville Planning
Pfeiffer Nature Center
Seneca Nation of Indians
Cattaraugus Local Development Corporation
NYS Parks/Allegany State Park
Chautauqua County Trail Riders
Cattaraugus County Equine Advisory Committee
Cattaraugus County Equine Advisory Committee
Chautauqua County Trail Riders
Cattaraugus/Chautauqua Chapter/NYS Horse Council
Cattaraugus/Chautauqua Chapter/NYS Horse Council
Finger Lakes Trail Conference

Consultant: Tom Robinson and Nicole Cleary from Barton & Loguidice

Cattaraugus Co. Dept. of Economic Development, Planning & Tourism staff:
Ginger Malak, Jean Davis, Becky Smith, Jeremy Knab



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I. Welcome

Ginger Malak opened the meeting at 7:00 pm and thanked everyone for attending. She asked everyone to please sign the sign-in sheet.

Mrs. Malak noted that if there is anything (information, maps, comments, etc.) that Committee members would like to be included in the Plan, please email that to Tom Robinson (trobinson@bartonandloguidice.com) or her (ggmalak@cattco.org). She explained that she takes notes at the meetings, but cannot capture every word someone says. The Committee's input is very valuable and appreciated, so please provide comments in writing.

II. Economic Impact of Hiking Trails

Quinn Wright from the Finger Lakes Trail Conference gave a PowerPoint presentation on "How is the Finger Lakes Trail System Relevant to the Cattaraugus County Economy?" See attached presentation. He noted the following:

- Outdoor Recreation stats did not include Equestrian use this year, but will be included next year.
- Stats are by Congressional and Senate Districts as well as County.
- Attempting to obtain a tax credit for private land owners who have hiking trails on their land; snowmobile clubs are working on that also.
- ATV stats are on a State level.

Discussion:

- ATV use in NYS vs. PA. PA has an ATV trail program.
- If questions arise regarding the data, is there backup information?

III. County-Wide Trails System

Tom Robinson and Nicole Cleary from Barton & Loguidice gave a PowerPoint presentation which included Report Outline, Preliminary Analysis, Community Input Tools and Initial Survey Feedback. See attached presentation. Mr. Robinson noted the following:

- If you have not done so already, please complete the online user survey which can be found on the County website.
- The survey includes only 21 questions. Very careful to not include too many questions, but enough to cover what was needed.
- 174 responses to the survey have been received thus far. Did receive some written comments.
- Some notable responses included:
 - Lack of information and mapping
 - Lack of signage
- Some additional outreach is necessary to reach groups that are not represented by the responses and/or Committee.

Nicole Cleary covered the maps that will be in the Plan and Community Input Tools (i.e. Crowdsourcing and Mapillary) and noted the following:

- Utilize these tools for:
 - Gap analysis
 - Trail improvements
 - Infrastructure and mapping

Mr. Robinson stated that the recommendations in the Plan will include discussion on:

- Shared resources
- Common ground uses
- Volunteers
- Future growth and improvements
- Potential funding opportunities

Discussion:

- Difficulty of rating trails.
- Jim Allen wanted to emphasize that the Mountain Biking Association does not build mountain biking trails, rather all are multi-use trails. His concern is that by labeling trails it may send the message of exclusion to people rather than inclusive. Label all trails as shared use and include exclusions if necessary.
- Perhaps look at the user difficulty or constraints that the trail might pose.
- Maps change over time, will the County be able to update the maps as new information comes in. The County Office of Real Property prepares trail maps for the Department of Economic Development, Planning and Tourism now and is participating in this project. They have already provided Barton many maps and data.
- Implementation/Challenges
 - Volunteers are really stressed. Volunteers cannot be the only people to implement projects. Volunteers are only one piece of the puzzle.
 - How can the recommendations be realistically implemented?
 - The first step is to create a vision.
 - Is the system maintainable?
 - Present criteria that can be used intelligently.
 - What volunteers do we have and how can we tap into additional volunteers?
 - Seek leadership to implement the Plan.
 - Leadership at the municipal level. Each community must be stewards for implementing the trail system.
 - Public support is important to show leadership that the system is supported.
 - How do you measure the number of people using trails or coming to the area? Need a measurement tool to collect the stats for the area. How do you capture where visitors are coming from.

- There are different sources to measure; pieces of information put together. With smart phones it is easier to track where they are.
- It was mentioned that one of the Tourism Promotion Agencies (TPA) in NYS was able to provide information on where visitors originated. The Department of Economic Development, Planning and Tourism is the designated TPA, but does not have that information.

III. Member Reports

There were no reports.

IV. Open Forum

No other comments were made.

V. Upcoming Meetings and Events

No meetings or events were announced.

VI. Next Meeting

Ginger Malak reported that the next meeting would normally be scheduled for May 18, 2017. If there is a reason to meet on April 20, Committee members will be notified. Save those two dates just in case. As always, interim communication will be via email.

VII. Adjournment

The meeting was adjourned at 8:55 pm.



Cattaraugus County

Department of Economic Development, Planning & Tourism

Crystal J. Abers, Director

Cattaraugus County Trails System Advisory Committee County Center, Little Valley, NY May 18, 2017 Meeting

Those in Attendance:

Name

Len Brainard
Luke Brainard
Amanda Dackowsky
John Eaton
Kori Eaker
Bob Fischer
Barb George
Carl George
Vicki Schmidt
Rick LeFeber
Tom Livak
Holly
Ainsley Smith
Becky Smith
Jon Sundquist
Missy Whittington
Quinn Wright

Organization

Cattaraugus County Equine Advisory Committee
Cattaraugus County Equine Advisory Committee
Cattaraugus County Equine Advisory Committee
Portville Trails Association
Cattaraugus County Equine Advisory Committee
River Trail/Portville Planning
Creekside Roundup
Creekside Roundup
Pfeiffer Nature Center
Cattaraugus Local Development Corporation
NYS Parks/Allegany State Park
Cattaraugus County Equine Advisory Committee
Cattaraugus/Chautauqua Chapter/NYS Horse Council
Cattaraugus County Equine Advisory Committee
WNY Mountain Bicycling Association
Cattaraugus/Chautauqua Chapter/NYS Horse Council
Finger Lakes Trail Conference


Consultant: Tom Robinson from Barton & Loguidice

Cattaraugus Co. Dept. of Economic Development, Planning & Tourism staff:
Jean Davis, Ginger Malak, Kate O'Stricker



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I. Welcome

Ginger Malak opened the meeting at 7:10 pm and thanked everyone for attending. She asked everyone to please sign the sign-in sheet.

Mrs. Malak noted that this would be her last meeting as she is retiring for the second time. She stated that it was a pleasure working with all of the Committee members and hoped to see them out on the trails. She thanked everyone for their participation on the Committee and development of the Plan.

She emphasized that if there is anything (information, maps, comments, etc.) that Committee members would like to be included in the Plan, please email that to Tom Robinson (trobinson@bartonandloguidice.com) or Kate O'Stricker (kmostricker@cattco.org). The Committee's input is very valuable and much appreciated. The Plan is for the trail users and will only be a success with the Committee's input.

II. County-Wide Trails System Plan Update

Tom Robinson from Barton & Loguidice gave a PowerPoint presentation which included Report Outline, Preliminary Analysis, Community Input Tools and Initial Survey Feedback. See attached presentation. Mr. Robinson noted the following:

Inventory Update:

- Inventory of all trail systems in the county is nearly complete. He is looking into labeling the shared trail with difficulty level.
- It is their goal to create a Maintainable system.
- Create a vision- what do we want and how we get there.
- GIS Trail Mapping Update: Shared use trail database great suggestion from last meeting.
- They are still taking in information, but are moving on to the next phase of the project.

Analysis and Overview:

GIS Data Updated with the assistance of the County's GIS Office

Trail User Groups.

Community Input (tools)

- Create trails that are inviting, safe and sustainable
- Over 225 survey responses
 - Communicate where the "good" maps are located suggested providing links to all these maps on Catt Co websites
 - Enchanted Mountains website has many links
- Question as to how people know about the survey
 - A press release was sent out at the initiation of the survey. It is on all websites, social media, etc.
 - The survey remains open to respond
 - If Committee members have not completed the survey, then please do so.

- Mapillary is fun to use but also is great for visitors to actually see what the trails are like to use

Preliminary Alternatives and Recommendations

- Starting to package information for recommendations
- Criteria for selecting new trails
- Compile guidelines for maintaining trails for sustainability
- Non-physical recommendations
- Funding sources
- Public support

How do Catt Co trails connect to trails on a much broader view?

- Priority Trails Projects
- Rails to Trails opportunities
- Rails with Trails (new initiative)

Preliminary Survey Findings:

- Shared use opportunities
- Identify trail access points – survey said that there is a lack of trail access points to use them
- Signage
- Trail Related Events – Catt Co will promote these events – just let us know

Next Steps

Mr. Robinson would like the Committee to provide feedback on the following points:

- 1) Review the existing maps of all trails. Are there any additions, deletions, revisions, suggestions?
- 2) Review and verify list of events on all trails. Request additions and feedback.
- 3) Review and verify trails contact list. Request additions and feedback.
- 4) Discuss possible use of snowmobile trails for summer use.
- 5) Priority projects the Committee would like to have included in the Plan: New trails; gap/connectors, access points/trailheads
- 6) Need updated information on group volunteer activities: trail building and trail maintenance
- 7) How much are the Committee members coordinating with Chautauqua and other neighboring counties – discussion of cross-country trails. Any feedback/opinion in the Chautauqua Equestrian Plan or the Chautauqua County Greenway Plan?
 - Draft of recommendations within the next month

Discussion:

Missy Whittingham: Many dollars are leaving NYS to use PA ATV trails.

Rick LeFeber: Linda Devlen – Allegheny Wilds

Carl George: Summarized what we might be looking at, connecting towns, service businesses, etc.

Barb George: how many miles are abandon rails in the County? Need investment in bridges n the old rail ways; would prefer a loop for equestrian trails

Jon Sundquist: all users are looking for loops – easier to do because you start at one access and come back to the same access

Missy Whittingham: There is a business opportunity in having an access point at the start and one at the end – bringing equipment (i.e. horse trailers) from one point the other. a connection can be getting the trails to the community so they can get the benefits

The Committee can contact Tom Robinson or Kate O'Stricker with any questions, comments or information.

III. Member Reports

There were no reports.

IV. Open Forum

Rick LeFeber asked everyone to give Mrs. Malak a round of applause for her dedication and work on the Trails Initiative.

V. Upcoming Meetings and Events

No meetings or events were announced.

VI. Next Meeting

Ginger Malak reported that the next meeting would depend on whether a face to face discussion is necessary. Since most everyone would like to be out on the trails in the summer Mr. Robinson will try to communicate via email rather than have a meeting. If there is a reason to meet Committee members will be notified.

VII. Adjournment

The meeting was adjourned at 8:15 pm.

Cattaraugus County

Department of Economic Development, Planning & Tourism

Crystal J. Abers, Director

Cattaraugus County Trails System Advisory Committee County Center, Little Valley, NY October 5, 2017 Meeting

Those in Attendance:

Name

Len Brainard
Amanda Dackowsky
Bob Fischer
Holly Fischer
Barb George
Carl George
Melinda Nichols
Rick LeFeber
Tom Livak
Quinn Wright
Jim Allen
Rick Miller

Organization

Cattaraugus County Equine Advisory Committee
Cattaraugus County Equine Advisory Committee
River Trail/Portville Planning
River Trail/ Portville
Creekside Roundup
Creekside Roundup
Little Valley Riders Club
Cattaraugus Local Development Corporation
NYS Parks/Allegany State Park
Finger Lakes Trail Conference
WNY Mountain Bicycling Association
Olean Times Herald

Consultant: Tom Robinson from Barton & Loguidice

Cattaraugus Co. Dept. of Economic Development, Planning & Tourism staff:
Jeremy Knab, Kate O'Stricker



Naturally Yours

303 Court St., Little Valley, NY 14755~ Phone: (716) 938-2242~ Fax: (716) 938-2779~ www.EnchantedMountains.com

I. Welcome

Kate O'Stricker opened the meeting at 7:10 pm and thanked everyone for attending. She explained that Tom Robinson (trobinson@bartonandloguidice.com) will be presenting the Executive Summary of the Trail Plan to the Committee members tonight, but if you have information that you still need to get included in the plan please get it to Kate O'Stricker (kmostricker@cattco.org). The Committee's input is very valuable and much appreciated. The Plan is for the trail users and will only be a success with the Committee's input.

II. County-Wide Trails System Plan Update

Tom Robinson from Barton & Loguidice gave a PowerPoint presentation which included Report Outline, Preliminary Analysis, Community Input Tools and Initial Survey Feedback. See attached presentation. Mr. Robinson noted the following:

Inventory Update**Trail Benefits****Trail Users****Survey Results****Recommendations**

(Please See Presentation)

Next Steps

Mr. Robinson would like the Committee to provide feedback on the following points:

- 1) Review Draft Executive Summary and recommendations
- 2) Review Draft Plan when available (By the week of October 16th)
- 3) Submit Comments by October 27, 2017

III. Member Reports

There were no reports.

IV. Upcoming Meetings and Events

No meetings or events were announced. Comments are due by October 27th, 2017

V. Adjournment

The meeting was adjourned at 8:30 pm.

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Cattaraugus County studying trail systems

By RICK MILLER Olean Times Herald 1 hr ago



Picasa
Rick Miller/Olean Times Herald

LITTLE VALLEY — Representatives from several trail groups and agencies met last week with the consultant charged with developing a Cattaraugus County-wide trail system plan.

The goal is to expand existing trails where possible, connect existing trails and encourage development of new trails connecting points of interest, officials said.

The Cattaraugus County Legislature votes on the \$50,000 contract with consultant Barton & Loguidice of Rochester on Tuesday. The contract is retroactive to Nov. 15, and concludes by Aug. 31, 2017.

Tom Robinson, a senior architect for Barton & Loguidice of Rochester, got a taste of the county's mountain bike trail system hours before the Thursday meeting held in the ground floor of the County Center here.

"It was my first mountain bike experience," Robinson told about 15 members of the Cattaraugus County Trails Group assembled to hear about the trail study.

Besides mountain bike enthusiasts, equestrian groups, hiking and biking trail representatives and others attended the meeting called by the county Department of Economic Development, Planning and Tourism.

Robinson said he has assembled a team to compile and make sense of what has already been done, then move on to how to connect and expand existing trails.

The company has conducted work in trail studies and designing multi-use trails in Rochester and Monroe counties, Wayne County and Wyoming County. "We're going to apply some of those lessons learned to thinking in the Cattaraugus County trails study," Robinson said.

Three of the main concerns are connectivity, sustainability and safety, Robinson said. “More people will use the facility if they think it is safe.” By connecting attractions in a community, a trail becomes more than just a trail.

Two of the most widely known trails in the county are the Allegheny River Valley Trail in Olean and Allegany and the Pat McGee Trail, which stretches 12 miles from Salamanca to Cattaraugus.

There are also miles of wooded mountain bike trails around Ellicottville. The North Country Trail and Finger Lakes Trail cut through Allegany State Park and Cattaraugus County. There are hundreds of miles of horse trails in the Little Valley area, and snowmobile trails across the county. The Genesee Greenway Park follows the old Genesee Canal through Cuba and into the Hinsdale area of Cattaraugus County.

Robinson said his team wants to learn as much about the existing trails as they can before they consider ways to connect and interweave the different existing trails.

“We hope a lot of trail users will become involved in this,” Robinson said. “We want to engage and recruit trail users.

Much of the work will involve the Internet and GPS technology as well as photography and video of trails. An app like Mapillary, a free public access tool, and using Google Street View for the trail system are options.

“There are great tools for getting people involved,” Robinson said.

GPS trail markers can be used in rural or other remote trail areas so emergency responders can be dispatched quickly and accurately as an added safety feature.



Two public meetings will also be scheduled to obtain public input, he said. The project will also make use of

social media.

Preliminary work will include identifying existing trails, performing a needs assessment, and prioritizing and identifying new development. Recommendations will be made to expand existing trails and identify new trail corridors, he said. A final network plan should be completed in about 10 months.

“When we get the data, we will need some way to prioritize it,” Robinson said. He will be looking for comments from user groups and trail reviews.

Ginger Malak, who has been guiding the meetings for the past three years, said groups representing different trail users —from those using trails for exercise, nature watchers, mountain bikers, people who enjoy equestrian trail riding and others — all have the same goal of increasing trail opportunities.

The county received a \$25,000 grant for the trail study last year from the Appalachian Regional Commission. The county added \$25,000 to help.

Crystal Abers, director of the Department of Economic Development, Planning and Tourism, said the study is needed before any additional grants can be sought from the state.

(Contact reporter Rick Miller at rmiller@oleantimesherald.com. Follow him on Twitter, @RMillerOTH)



Tags

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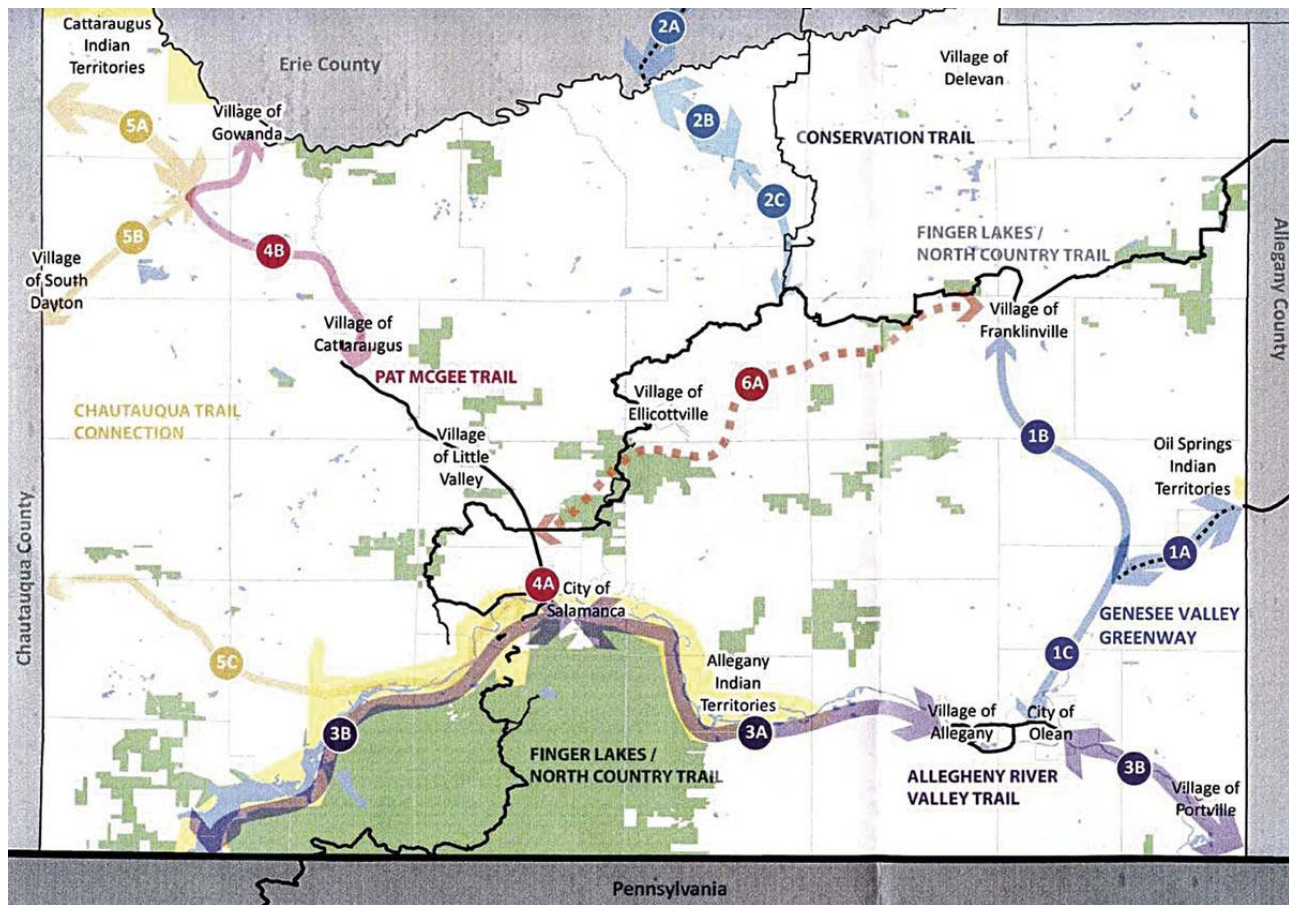
- Interest continues in Lufkin-RMT site

http://www.oleanimesherald.com/news/year-long-cattaraugus-county-trails-study-in-final-stages/article_9c9b6f76-ab07-11e7-ad87-7f29ed15ffa0.html

FEATURED

Year-long Cattaraugus County trails study in final stages

By RICK MILLER, Olean Times Herald Oct 7, 2017



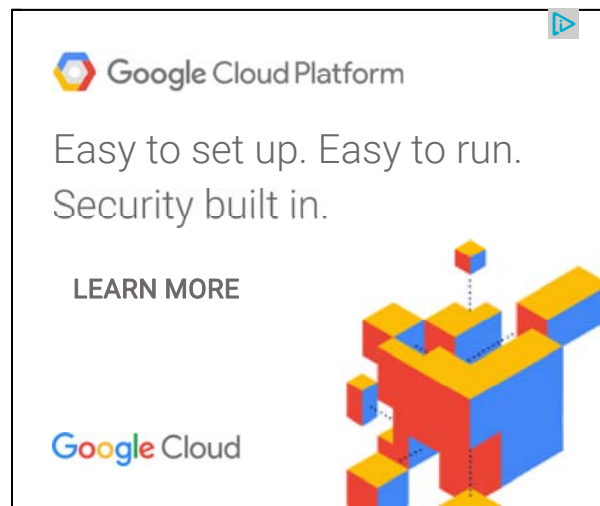
The above image is the Cattaraugus County trails map planners are using to try to recommend links to existing trails, improve trails and expand the trail system.

Image submitted

LITTLE VALLEY — A Cattaraugus County Countywide Trail System study is expected to recommend a combination of improvements to existing trails, connections between trails and new multiple-use trailways.

The County Wide Trail Committee made up of trail users of various types from around Cattaraugus County heard a report on the draft from Tom Robinson, project manager for Barton & Loguidice of Rochester, on Thursday.

Trail users include walkers and hikers, bicyclists, horseback riders, cross-country skiers, snowmobiles, all-terrain vehicles and others.



The draft report is expected to be formally issued on Oct. 18, Robinson said. Committee members will be emailed a copy of the draft report. A link will also be available on the Cattaraugus County Economic Development, Planning and Tourism website.

Robinson said any comments on the executive summary recommendations or other parts of the trail study would be incorporated in the final report, expected to be issued by mid-November.

The recommendations, Robinson said, will be based on information from the Trail Group, online survey and interactive maps used in the study. An app called Mapillary is also being used for feedback on trail conditions and maintenance issues.

The Barton & Loguidice study started last November with many of the same participants brainstorming trail issues with Robinson.

The \$50,000 study was undertaken using a state grant. It's conclusions are expected to be used to seek other trail grants for improvements, links between existing trails and new trail segments.

Trail benefits range from improved health stemming from the exercise of walking to an economic boost for communities with popular trails.

"The user groups were fantastic," Robinson said. There were 55 people in 29 trail groups involved in the study.

"They have some real serious energy to harness going forward," he added.

Outdoor recreation and nature were the biggest reasons given in an online trail survey involving about 440 individuals, Robinson said. Community benefits include social interaction and family activities.

"The benefits are significant for Cattaraugus County," Robinson said. "Future benefits are even greater."

A recommendation is expected to "brand" the trails under a Cattaraugus County County Wide Trail System. Branding would include similar signage and mapping.

In addition, Robinson suggested the county put maps of existing trails on its website, as well as trail access points.

There are areas seen as "a high potential for expansion," Robinson said. As many as six connecting trails are expected to be recommended in the executive summary. There are logical reasons for "making the most of trails already built and connect them where you can," Robinson said. Still, trails need to be localized for maximum use.

The online survey results showed 70 percent of respondents were female, most were in the 56- to 65-year age range and most were ready to volunteer some time, mostly for trail maintenance.

The survey also showed walking and hiking as the top response for trail users, followed by equestrian users, biking and dog walking. A growing number of people want trails to be year-round, requiring added maintenance.

A significant number of responses dealt with all-terrain vehicles, which would probably require special trails to be set aside.

One member of the Trails Group suggested making maps using the county's GIS (Geographic Information Systems) to accurately map the existing trails for a downloadable app for mobile devices.

Robinson said the executive summary will also recommend a trail coordinator to begin to take the trail system to the next level and ready for sections to link existing trails. This would be "someone who could weave all the trails together."

The draft recommendations include:



- Add a Genesee Valley Greenway connection to the Finger Lakes/North Country Trail systems in Hinsdale.
- Add a trail connection with the Erie-Cattaraugus Rail Trail in Ashford and connections to the North Country/Finger Lakes trails.

- Expand the Allegheny River Valley Trail along the Allegheny River to Salamanca, and continue west along abandoned railroad beds to the Chautauqua County line.
- Extend the Pat McGee Trail into the city of Salamanca to connect with the Pennsy Trail and Allegany State Park. Also, extend the Pat McGee Trail north of Cattaraugus to Gowanda.
- Build a multi-use trail from Franklinville and Ellicottville trail systems to the Pat McGee Trail.
- More ADA-accessible trails including widening the Allegheny River Valley Trail and paving the Pat McGee Trail.
- Create a comprehensive signage system for the trails.
- Plans for marketing the trails to the public and setting up trail events.
- Incorporate an economic development strategy into the local trail plans.

Robinson said the group's plan for multiple use trails was a strategy to avoid conflicts. Barton & Loguidice is including an extensive list of funding for projects deemed a priority.

"This is not the end of the project," Robinson said. "I hope it's the start of some meaningful improvements. We want feedback on the draft report in the next few weeks."



CATTARAUGUS COUNTY COUNTYWIDE TRAIL SYSTEM PLAN

APPENDIX D TRAIL OPERATIONS & MAINTENANCE



TRAIL OPERATIONS AND MAINTENANCE

OPERATIONS

The operation of a trail consists of the day-to-day management of trail use. This includes law enforcement, marketing, special events, map and brochure updates, and other functional considerations. The policies regarding the operation of a trail will most likely be decided prior to construction. After construction, a large part of trail operation consists of the execution of those policies.

MAINTENANCE

The maintenance of a trail includes the various activities involved in keeping the trail in a safe, usable condition. This includes efforts ranging from mowing and brush removal to replacement of damaged signs or benches to reconstruction of the trail. Lifetime trail maintenance will place ongoing costs on the operating agency, and this should be considered during the trail planning and funding process. In most cases, funding granted for trail construction cannot be applied to ongoing operations and maintenance. In order to maintain the quality of a newly constructed trail, local trail operators must plan for the continued maintenance of the facility.

RECOMMENDATIONS

These recommendations are designed to assist trail operators in the operation and maintenance of trail facilities, and should be viewed as guidelines. As guidelines, they have no legal requirement, and should be altered based on conditions specific to a particular operating entity or trail. Establish an Operations and Maintenance Policy. Before the trail opens, the implementing group should set forth a policy document outlining specific rules pertaining to the trail and specific tasks that will be performed for its operation and maintenance. This policy will be the guide for the ongoing administration of the trail. The document should be unique to the particular community or trail to which it applies. The Operations and Maintenance Policy may cover a wide range of issues. The following items should be major considerations in the policy.

- Permitted uses on the trail.
- Whether user fees will be collected, and in what manner (e.g. pay-as-you-go, trail passes).
- Marketing of the trail. Some communities may desire to reap the economic benefits of trails by actively marketing their facilities. The costs associated with marketing can vary greatly, depending on the intended audience and the intensity of the campaign.
- Policing and security on the trail. This may include the creation of an emergency response plan; provision for trail patrols through existing law enforcement or with special community bike patrols; or a plan for other safety measures such as emergency phones or call boxes.
- Liability. In many cases, existing laws will determine liability. The operating agency should fully understand the liability associated with the trail and verify that insurance is adequate.
- Encroachment. Some local agencies may take ownership of a corridor that is being encroached upon by adjacent landowners. This is particularly true of railroad corridors bounded by agricultural uses. The implementing agency should set forth definitive policies relating to existing and future encroachments.
- Snow removal. In mild winters, some users will expect hard-surfaced trails to be plowed for use throughout the season. The operating agency should determine whether or not it will perform this maintenance.
- Seasonal maintenance. The operating agency should determine who will perform this maintenance. In many cases, volunteers or existing clubs can groom trails.
- Cooperative maintenance agreements. In some cases, trail owners may wish to explore the possibility of partnering with other government entities or private organizations in the operation and maintenance of a trail. Any operations or maintenance agreements should be articulated in the operations and maintenance policy.
- Use of volunteers. Volunteers can be a cost-saving benefit for trail operators. They do, however, need to be supervised, and liability prevents their use in certain situations.
- Evaluation of trail conditions. Every trail should be evaluated on a regular schedule to identify the need for major and minor repairs. The operations and maintenance policy should delineate how often trail evaluations take place, preferably once a year.
- Short- and long-term maintenance program.

RECOMMENDED MAINTENANCE

Different types of trails will differ greatly in their maintenance requirements. All trails however, will require a variety of maintenance activities at different points in their lives. [Table 7](#) outlines some general guidelines for maintenance activities and the frequency at which they should be performed.

- “Frequency” refers to how often each maintenance item should be performed.
- “Maintenance” refers to the specific maintenance activity to be performed.
- “Performed by” refers to who may undertake the particular maintenance activity.

MAINTENANCE COSTS

Maintenance costs will vary greatly depending on the type of trail, amount of volunteer labor, construction quality, and available services. These costs, however, must be considered during the trail planning process, to ensure that trail owners can pay for the ongoing maintenance of the trails they develop. Maintenance costs are rarely broken down into specific tasks such as those listed in the following table. Most trails are maintained by an existing agency, such as a local or state park, public works, or maintenance department.

Estimated costs, therefore, are broken down by the type of maintenance performed. There are three basic types of maintenance. Routine maintenance includes all the general activities, such as brush clearing, trash collection, and sweeping, that may take place on a regular basis throughout a season. Minor repairs refer to activities that can be expected every five years or so, such as amenity replacement, repainting, or re-striping. Major reconstruction refers to significant expenditures involving resurfacing or reconstruction. These activities are the most costly trail maintenance activities and should be planned for in advance.

Maintenance

<i>Frequency</i>	<i>Maintenance</i>	<i>Performed By</i>
As needed	Tree/brush clearing and mowing Sign replacement Map/signage updates Trash removal/litter clean-up Replace/repair trail support amenities (parking lots, benches, restrooms, etc.) Repair flood damage: silt clean-up, culvert clean-up, etc. Patching/minor regrading/stone dust replacement	Volunteers, trail operator
Seasonal	Planting/pruning/beautification Culvert Cleanup Installation/removal of seasonal signage	Volunteers, trail operator
Yearly	"Surface evaluation to determine need for patching or regrading Evaluate support services to determine need for repair or replacement"	Trail operator
5-year	Repaint or repair trash receptacles, benches, signs, and other trail amenities, if necessary	Hired contractor, trail operator, volunteers
10-year	Resurface/regrade/restripe	Hired contractor, trail operator, volunteers
20-year	Replace/reconstruct trail	Hired contractor, trail operator, volunteers

Routine Maintenance.

Typically, most of the routine maintenance of a trail facility will be performed by an existing agency or volunteer group. Local trail owners should be well equipped to include trail maintenance into their parks or public works maintenance budgets and activities. Activities considered routine maintenance include:

- Yearly facility evaluation to determine the need for minor repairs
- Tree and brush clearing
- Mowing
- Map/signage updates
- Trash removal and litter clean-up
- Repair of flood damage: silt clean-up, culvert clean-out, etc.
- Patching, minor regrading, or stone dust replacement
- Planting, pruning, and general beautification

The yearly cost for routine maintenance depends on the maintenance capabilities already in place with the trail owner and the amount of volunteer labor used. According to the Rails-to-Trails Conservancy, the estimated maintenance cost for a stone dust trail is \$1,006 per mile (Rails-to-Trails Conservancy, 2014). This figure does not include snow removal.

Minor Repairs.

The need for minor repairs should be determined by a yearly facility evaluation (see Routine Maintenance, above). Minor repairs may include the following activities:

- Replacement, repair, or repainting of trail support amenities, such as signage, benches, trash receptacles
- Replacement of a portion of the trail
- Re-striping of trails

The cost for replacement, repair, or repainting of trail amenities is based on the initial cost of those amenities. Trail operators should maintain records of the general costs of trail amenities as a means of estimating future repair and replacement costs. If custom elements, such as lighting or benches are used in trail design, the trail owner should consider ordering extra elements at the time of construction and storing them for future use, thereby defraying the cost of single-runs later.

Major Reconstruction.

There is one activity considered to be major reconstruction, the complete replacement, regrading, and resurfacing of all trails. Complete replacement of a trail involves removing the existing trail, regrading the trail base, and resurfacing the facility. This kind of comprehensive maintenance will be necessary every 20 years, regardless of trail type. Even natural surface trails may need to be fully regraded after 20 years of use. Trail costs for reconstruction are the same as the cost of a new trail plus the cost of demolishing the existing trail. As with any major trail project, however, a detailed cost estimate should be performed during the project planning stages. The best guide for estimating the replacement cost of a trail is to consider the original construction cost.

A major cost such as trail replacement should be considered well in advance. It may be more difficult to secure large state or federal grants for trail reconstruction. Therefore, a trail owner should consider the eventual cost of trail replacement and financially prepare for that significant maintenance activity.



CATTARAUGUS COUNTY **COUNTYWIDE** TRAIL SYSTEM PLAN

APPENDIX E TRAIL FUNDING



TRAIL FUNDING

1. FEDERAL FUNDING SOURCES

National Highway Performance Program. Funds may be used to construct bicycle transportation facilities and pedestrian walkways on land adjacent to any highway in the National Highway System, including Interstate highways.

Highway Safety Improvement Program. Funds may be used for bicycle and pedestrian-related highway safety improvement projects, strategies and activities on a public road that are consistent with a state strategic highway safety plan.

Congestion Mitigation and Air Quality (CMAQ) Improvement Program. Established in 1991, CMAQ will continue to provide funding for projects that help state and local governments meet the requirements of the Clean Air Act. Whether they include attainment or non-attainment areas, states may use CMAQ funds for CMAQ- or STP-eligible projects. Projects must be included in the MPO's current transportation plan and transportation improvement program (TIP) or state transportation program (STIP) in areas without an MPO.

Transportation Alternatives. As mentioned earlier, this new program now provides funding for what used to be funded by three separate programs (Transportation Enhancements, Safe Routes to School, Recreational Trails). In addition to projects in these categories, TA money can be used to fund some road projects. Fifty percent of each state's funds will be distributed by the DOT, the remainder by the MPOs. There is an opt-out clause that allows up to fifty percent of the funds to be transferred to use in any program without restriction. NYSDOT's TAP Guidebook lists six eligible project categories and two sub-categories:

Categories

Construction, Planning and Design of On-road and Off-road Facilities for Pedestrians, Bicyclists and Other Non-motorized Forms of Transportation;

Construction, Planning and Design of Infrastructure-Related Projects to Provide Safe Routes for Non-drivers to Access Daily Needs;

Conversion and Use of Abandoned Railroad Corridors for Trails for Pedestrians, Bicyclists and Other Non-motorized Transportation Users;

Construction of Turnouts, Overlooks and Viewing Areas;

Safe Routes to School;

Construction, Planning and Design of Boulevards.

Sub-categories

Community Improvement Activities (including Landscaping and Streetscape Improvements), when integrated with work in another category;

Environmental Storm Water Management Activities, when integrated with work in another category.

Recreational Trails Program is now funded under the TA umbrella. Funds may be used for all kinds of trail projects. Of the funds apportioned to a state, 30 percent must be used for motorized trail uses, 30 percent for non-motorized trail uses, and 40 percent for diverse trail uses (any combination). Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. The funding amount will remain the same as in 2009 (\$2,204,556). An important provision of the new bill allows the Governor of a state to opt out the recreational trails program if the Governor notifies the U.S. Secretary of Transportation no later than 30 days prior to apportionments being made for any fiscal year.

Highway Safety Section 402 Grants. Generally unchanged from SAFETEA-LU. A State is eligible for these Section 402 grants by submitting a Performance Plan (establishing goals and performance measures for improving highway safety) and a Highway Safety Plan (describing activities to achieve those goals). Research, development, demonstrations, and training to improve highway safety (including bicycle and pedestrian safety) are carried out under the Highway Safety Research and Development (Section 403) Program.

Title 49 USC allows the ***Urbanized Area Formula Grants(Section 5307), Capital Investment Grants and Loans (Section 5309), and Formula Program for Other than Urbanized Area (Section 5311)*** transit funds to be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investments in “pedestrian and bicycle access to a mass transportation facility” that establishes or enhances coordination between mass transportation and other transportation.

HUD Community Development Block Grants (CDBG). Through the U.S. Department of Housing and Urban Development (HUD), the CDBG program provides eligible metropolitan cities and urban counties (called “entitlement communities”) with annual direct grants that they can use to revitalize neighborhoods, expand affordable housing and economic opportunities, and/or improve community facilities and services, principally to benefit low- and moderate-income persons. Eligible activities include building public facilities and improvements, such as streets, sidewalks, sewers, water systems, community and senior citizen centers, and recreational facilities. Several communities have used HUD funds to develop greenways.

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/>

2. STATE AND REGIONAL FUNDING SOURCES

CHIPS (Consolidated Local, State, and Highway Improvement Program) Funds are administered by NYSDOT for local infrastructure projects. Eligible project activities include bike lanes and wide curb lanes (highway resurfacing category); sidewalks, shared use paths, and bike paths within highway right-of-way (highway reconstruction category), and traffic calming installations (traffic control devices category)

Market NY Empire State Development Grant Market New York is a grant program that supports regionally themed marketing projects that promote tourism destinations, attractions and special events, as well as tourism facility capital improvement projects. Additionally, eligible projects include the hosting, coordination and execution of special events new to New York State.

Local Waterfront Revitalization Program NYS DOS A Local Waterfront Revitalization Program consists of a planning document prepared by a community, and the program established to implement the plan. An LWRP may be comprehensive and address all issues that affect a community's entire waterfront, or it may address the most critical issues facing a significant portion of its waterfront. Funding to advance preparation, refinement, or implementation of Local Waterfront Revitalization Programs is available under Title 11 of the New York State Environmental Protection Fund Local Waterfront Revitalization Program (EPF LWRP).

OPRHP-Environmental Protection Fund Grant Program for Parks, Preservation, and Heritage The Environmental Protection Fund Grant Program for Parks, Preservation and Heritage (EPF) offers up to \$20 million in matching grants for the acquisition, planning, development, and improvement of parks, historic properties listed on the National or State Registers of Historic Places and heritage areas identified in approved plans for statutorily designated Heritage Areas. Funds are available to municipalities or not-for-profits with an ownership interest. The maximum award is \$500,000.

The Green Innovation Grant Program The Green Innovation Grant Program (GIGP) provides grants on a competitive basis to projects that improve water quality and demonstrate green stormwater infrastructure in New York State. Eligible projects include: permeable pavement, such as porous asphalt, concrete, or pavers; bioretention / bioinfiltration and rain gardens; green roofs or green walls; street trees or urban forestry programs designed to manage stormwater; construction or restoration of wetlands, floodplains, or riparian buffers; stream daylighting, which includes removing streams from pipes and restoring the natural morphology; Downspout disconnection which redirects stormwater from sewers to vegetated areas; and stormwater harvesting and reuse, for example rain barrel and cistern projects. <http://www.efc.ny.gov/>

The Greater Rochester Health Foundation administers a competitive grant program to implement community health and prevention projects. While grant focus topics and cycles may vary from year to year (the letter of intent deadline for 2013 grants was August 6, 2012), bicycle- and pedestrian-related projects and programs may frequently be well suited for these opportunity grants. <http://www.thegrhf.org/>

3. PRIVATE FUNDING SOURCES

There are a number of for and non-profit businesses that offer programs that can be used to fund bicycle and pedestrian related programs and projects. Nationally, groups like Bikes Belong fund projects ranging from facilities to safety programs. Locally, Wegmans and Excellus have a strong track record of supporting health-based initiatives and may be resources for partnership or sponsorship.

Bikes Belong Coalition. The Bikes Belong Grants Program strives to put more people on bicycles more often by funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S.” Most of the Bikes Belong grants awarded to government agencies are for trail projects. The program encourages government agencies to team with a local bicycle advocacy group for the application. Bikes Belong Coalition seeks to assist local organizations, agencies, and citizens in developing bicycle facilities projects. Bikes Belong Coalition will accept applications for grants of up to \$10,000 each (with potential local matches), and will consider successor grants for continuing projects. Grant applications are accepted quarterly. <http://www.bikesbelong.org/grants>

American Hiking Society National Trails Fund. The American Hiking Society's National Trails Fund is the only privately funded national grants program dedicated solely to hiking trails. National Trails Fund grants have been used for land acquisition, constituency building campaigns, and traditional trail work projects. Since the late 1990s, the American Hiking Society has granted nearly \$200,000 to 42 different organizations across the US. Applications are accepted annually with a summer deadline. <http://www.americanhiking.org/NTF.aspx>

The Global ReLeaf Program. The Global ReLeaf Forest Program is American Forests' education and action program that helps individuals, organizations, agencies, and corporations improve the local and global environment by planting and caring for trees. The program provides funding for planting tree seedlings on public lands, including trailsides. Emphasis is placed on diversifying species, regenerating the optimal ecosystem for the site and implementing the best forest management practices. This grant is for planting tree seedlings on public lands, including along trail rights-of-way. http://www.americanforests.org/global_releaf/grants/

The Robert Wood Johnson Foundation. The Robert Wood Johnson Foundation seeks to improve the health and health care of all Americans. One of the primary goals of the Foundation is to "promote healthy communities and lifestyles." Specifically, the Foundation has an ongoing "Active Living by Design" grant program that promotes the principles of active living, including non-motorized transportation. Other related calls for grant proposals are issued as developed, and multiple communities nationwide have received grants related to promotion of trails and other non-motorized facilities. <http://www.rwjf.org/grants/>

Conservation Alliance. The Conservation Alliance is a group of outdoor businesses that supports efforts to protect specific wild places for their habitat and recreation values. Before applying for funding, an organization must first be nominated by a member company. Members nominate organizations by completing and submitting a nomination form. Each nominated organization is then sent a request for proposal (RFP) instructing them how to submit a full request. Proposals from organizations that are not first nominated will not be accepted. The Conservation Alliance conducts two funding cycles annually. Grant requests should not exceed \$35,000 annually. <http://www.conservationalliance.com/>

Surdna Foundation. The Surdna Foundation seeks to foster just and sustainable communities in the United States, communities guided by principles of social justice and distinguished by healthy environments, strong local economies and thriving cultures. <http://www.surdna.org/>

4. EXISTING RECONSTRUCTION PROJECTS

There are possible opportunities to collaborate with existing highway/street reconstruction projects to include upgrades to bicycle and pedestrian infrastructure. Coordination at the beginning of the reconstruction project will help to ensure bicycle and pedestrian facilities are studied as part of the inventory phase and carried through construction. Maintain regular communication with NYSDOT and County DOT regarding implementation of plan recommendations. Examples of these types of projects include Highway Preventive Maintenance projects in addition to those projects identified through NYSDOT's Statewide Transportation Improvement Program (STIP) which lists all projects in NY state for which Federal funding is proposed to be used that are scheduled to begin within a designated time frame of four federal fiscal years. The most recent STIP is for May, 2016 and can be found here: <https://www.dot.ny.gov/programs/stip/stip-project-rpt>