



# **Greene County, New York Tourism Trails Plan**

Locally Administered Project: PIN #: 1759.29

June 2014





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## i. Acknowledgements

This project, formally called the Greene County Rails- to- Trails Economic Development and Tourism Study, is a NYSDOT Locally Administered Project funded through the Transportation, Community, and System Preservation Program (TCSP). The Locally Administered Project is identified as PIN #: 1759.29. For the purposes of brevity, the simplified title of “Tourism Trails Plan” was chosen by the County and is used throughout the document.

The plan was created through the work of many hands, including the project steering committee:

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## Executive Summary

**Vision:** The Greene County Tourism Trails Plan is an integral part of the county's Great Northern Catskills of Greene County "Awaken to Adventure" tourism brand strategy. With significant resources ranging from the Catskill Park, the Hudson River Greenway, and historic town centers to the long tradition of four season outdoor recreation, the County is in a strong position for future improvements. This plan provides the framework for a county-wide strategic approach to developing trails, greenways and infrastructure for non-motorized transportation and recreation. A baseline inventory of existing trails, abandoned rail corridors, bikeways, scenic byways and destinations was created, along with a list of potential projects throughout the County. The Tourism Trails Plan capitalizes on the county's nationally significant heritage and cultural assets with focused investments in five thematic trail areas: the Kaaterskill Clove Trails, a Mountain Bike "Ride Center," Town Center Connections, Scenic Vistas, and Natural Trails.

**Project Location and Description:** The project involved working with a Steering Committee, the New York State Department of Transportation, and involved outreach to stakeholders throughout Greene County to inventory and assess county-wide resources as they relate to non-motorized transportation, recreation and economic development. From this information, potential projects were identified and specific recommendations developed that provide a "trailmap" for implementation. The Plan was prepared in cooperation with the NY State Department of Transportation with funding provided by the federal Transportation, Community, and System Preservation Program (TCSP). Since transportation funding is a major source of grants for trail projects, the plan considers the transportation benefits of potential trails. At the same time, recreation and tourism are important to the County's economy and quality of life. The Plan includes a balance of trail types, uses and communities throughout Greene County, with an emphasis on identifying future capital projects.

**Stakeholder Involvement:** Municipalities, community groups, chambers of commerce, rail-trail advocates and recreation-based organizations attended outreach meetings and have provided input to identify potential trail projects that capitalize on the County's natural, cultural and historic resources. A full-day workshop was held on December 6, 2012 with representatives from throughout the County. Follow-up meetings and key destination site visits were held in Windham, Hunter, Tannersville, Round Top, Catskill, Palenville and Cairo. An email survey was used to gather additional public input. This information was consolidated by the project team into an inventory of existing and future projects for inclusion in a comprehensive trail system that will connect communities and increase economic opportunities. A presentation of the project inventory evaluation and the catalyst projects was given to the County legislature during the summer of 2013.

**Project Inventory Matrix:** The list of potential projects was compiled into a matrix and geographic information system (GIS) database. More than 50 projects were documented and mapped in the County's three geographic regions: Mountaintop, Valley, and Historic River Towns. The matrix was evaluated to identify strategic 'catalyst' projects based on the following factors: Transportation, Economic / Tourism Benefits, Recreation, Multiple Uses, Agency / Management / Landowner Support, Cost, and Potential for



Implementation. At total number of points was assigned to each of these factors based on their importance to the County. The project team then assigned values to each project for each factor and the scores were summed. A group of trails projects was identified from this process to be developed as early implementation efforts that will create momentum for developing the county-wide system. Additional projects will be developed as local community support and resources become available over time.

**Findings:** Based on the project list and matrix, five thematic trail areas were identified. These areas were selected for their importance to recreation, economic development, and tourism within Greene County, and for the potential to advance projects towards implementation. For each of these areas, ‘early win’ projects were identified and combined into detailed project description packages. These projects are intended to represent a cross-section of potential project types, and to serve as a catalyst for ongoing trail and trail-oriented development in the County. The five thematic trail areas were identified as follows:

**1. Kaaterskill Clove Trails:** This area is central to tourism and recreation in Greene County, with the North-South Lake State Park campgrounds being one of the most popular camping areas in upstate New York. The projects in this area will promote economic development and create sustainable tourism opportunities.

- **Palenville Hamlet Plan:** Develop a trail-oriented community plan, and create a gateway for the County Trails system including transit connections to Kaaterskill Falls and Hunter.
- **Mountain Top Historic Society (MTHS):** Develop a tourism center / trailhead, with a connection to Kaaterskill Falls via the Kaaterskill Rail Trail.
- **Kaaterskill Falls:** Provide improved trails and access to the upper viewing area and lower access area, with a spur trail connection to North-South Lake State Park. This is important to address safety concerns and overuse of the Kaaterskill Falls.
- **Complete the Rail Trails:** Continue development of the Kaaterskill Rail Trail, Huckleberry Trail, and the trail extension to Tannersville.

**2. Mountain Bike “Ride Center”:** Efforts are well underway in Windham and Round Top to provide infrastructure and promote the sport of mountain biking. Two projects are proposed in the area to further the goal to create an International Mountain Bike Association (IMBA) “Ride Center” within Greene County that will attract riders, beginner through advanced, from across the country.

- **Windham Shared-Use Path:** Extension of the existing trail with a focus on the in-town connections, and linking the mountain bike areas under development in Windham.
- **Round Top MTB Network:** Improve public access, wayfinding and trail conditions for the growing singletrack network in Round Top.

**3. Town Center Connections:** Connections to and within town centers are important for tourism as well as quality of life for residents. Trail connections to the centers of Catskill and Prattsville will be detailed as examples for each of the communities in Greene County.

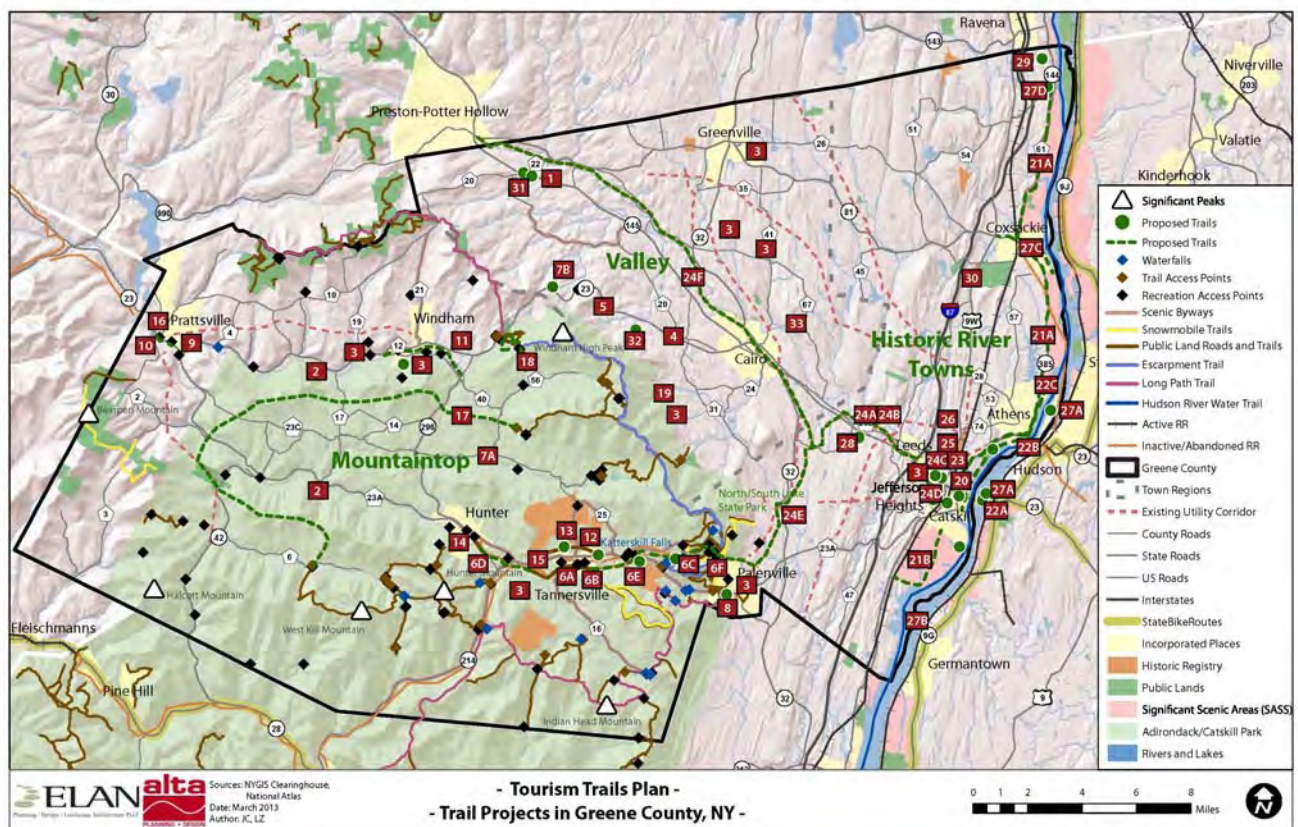
- **Village of Catskill:** Complete the Black Bridge rehabilitation and Catskill Creek walking loop. Provide a trail connection from the Thomas Cole House to the Rip Van Winkle Bridge.
- **Prattsville:** Develop a Greenway trail to connect Pratt Rock, Conine Field and the center of town.

**4. Scenic Vistas:** The views from the Catskill Mountains and the shores of the Hudson River are known by many through the works of famous artists of the Hudson River School of Landscape Painting. Enhancing and promoting these historic views, along with the promotion of exiting scenic by-ways and driving tours can generate additional tourism opportunities.

- **Five State Overlook:** Improve the existing state-owned parking area with an enhanced viewing area, visitor information and wayfinding at the existing scenic lookout site.

**5. Natural Trails:** Natural surface trails provide opportunities for multiple trail uses, including hiking, birding, fishing, snowshoeing, and cross-country skiing. There are many shorter trails throughout the County and also a few very well-known and popular long-distance trails, including the Escarpment Trail and the Long Path. Expanding on these trails and developing more opportunities will bring more trail users to Greene County.

- **Top of the Catskills Loop:** A hiking/ snowshoeing trail that will connect the northern and southern ends of the Escarpment Trail in a loop following the peaks of the Catskill Mountains. This will provide a multi-day loop hike within Greene County.



# 1 Introduction

The Greene County Tourism Trails Plan is a catalyst for creating new opportunities for residents, visitors and businesses to benefit from the value of trails in the Great Northern Catskills. The County has a successful heritage of trails ranging from skiing to hiking and scenic byways. It is important to take this heritage into the future to capitalize on new opportunities created by the growing importance of trails for people of all ages and abilities. Greene County's trails have access to the major northeast population centers, and trails are in demand as a way to connect people with healthy, active and fun outdoor adventures. The plan envisions a connected network of trails for a variety of four-season activities that will improve the economy, environment, and quality of life throughout Greene County. Local communities will be able to use this plan to advance their initiatives, produce funding applications and communicate with potential partners.

This trails plan was developed through a collaborative process that involved working with a Steering Committee, the New York State Department of Transportation, and involved outreach to public, private and non-profit stakeholders throughout Greene County to inventory and assess county-wide resources as they relate to non-motorized transportation. From this information, potential projects were identified and specific recommendations developed that provide a clear and concise trail map for implementation. The Plan was prepared in cooperation with the NY State Department of Transportation under the Federal Transportation, Community, and System Preservation Program (TCSP). Since transportation funding is a major source of grants for trail projects, the plan considers the transportation benefits of potential trails. At the same time, recreation and tourism are important to the County's economy and quality of life. The Plan includes a balance of trail types, uses, and communities throughout Greene County, with an emphasis on identifying future capital projects.

Municipalities, community groups, chambers of commerce, rail-trail advocates and recreation-based organizations attended outreach meetings and provided input to identify potential trail projects that capitalize on the County's natural, cultural and historic resources. A full-day workshop was held on December 6, 2012 with representatives from throughout the County. Follow-up meetings and site visits were held in Windham and Kaaterskill Clove. An email survey was utilized to gather additional public input. This information was consolidated by the project team into an inventory of existing and future projects for inclusion in a comprehensive trail system that will connect communities and increase economic opportunities. A presentation of the project inventory evaluation and the catalyst projects was given to the County legislature during the summer of 2013.

While the original concept for the TCSP funding was to develop rail-trails in the County, the vision of the trails system was broadened during the planning process to include a wider range of trail types and opportunities. This was due to the fact that most of the railroad rights-of-way in the county have been abandoned into discontinuous segments, with limited areas in public ownership. Where possible, some of the rail-trail sections are being developed into trails or identified as opportunities for historic interpretation. These corridors have been identified and mapped as part of the plan. In addition, the plan includes a broader network of hiking, biking and other non-motorized transportation and recreation initiatives.



## 2 Existing and Proposed Trail Projects

### 2.1 Railroad Rights-of-Way

There are seven distinct railroad lines that traversed Greene County throughout the years. Railroad corridors are an important starting point when considering a trail system. These corridors typically offer long stretches of dedicated right-of-way with access to towns and villages and sufficient width and grades to easily develop a shared-use path. Historically, railroads were an important and significant factor in the development of many of Greene County's populated areas. While many of these alignments have been abandoned and the right-of-way absorbed into surrounding parcels, a portion of these railroad corridors still exists today. A map of the existing and abandoned railroad corridors can be found on page 9. The existing ownership and use of these corridors has also been identified.

Only one railroad line remains active: the West Shore Line along the Hudson River. The West Shore Line, owned and operated by CSX, runs north-south the length of the County and serves as the primary freight line connecting New York City to Albany and upstate New York. The six abandoned rail corridors in Greene County are:

1. The White Elephant Railroad, also known as the Saratoga & Hudson River Railroad, was built in 1864. The railroad carried goods from the Athens port north to Schenectady. The railroad and the Town of Athens flourished until 1867 when a fire destroyed much of the ship and railroad yards. All that remains intact are the brick row houses that were built for the railroad employees. The railroad right-of-way is no longer intact.

2. The Ulster & Delaware Railroad entered Greene County from the south and ended near Kaaterskill Falls in the Catskill Mountains. The Greene County branch, frequently called the Kaaterskill Railroad, was built in the 1880's with a 3 foot narrow gauge track. Passenger service flourished into the 1900's. It was eventually upgraded to a standard track gauge. The tracks were abandoned, and much of the tracks were removed in 1940. Route 214 covers a small portion of the railroad alignment near Stony Clove Notch. Some bridge abutments remain along the right of way and a portion (2 miles) has been converted into a rail-trail near Tannersville. Two of the passenger stations remain. The Hunter Station has been converted into a private residence, and the Mountain Top Historical Society is housed in the Haines Falls Station.

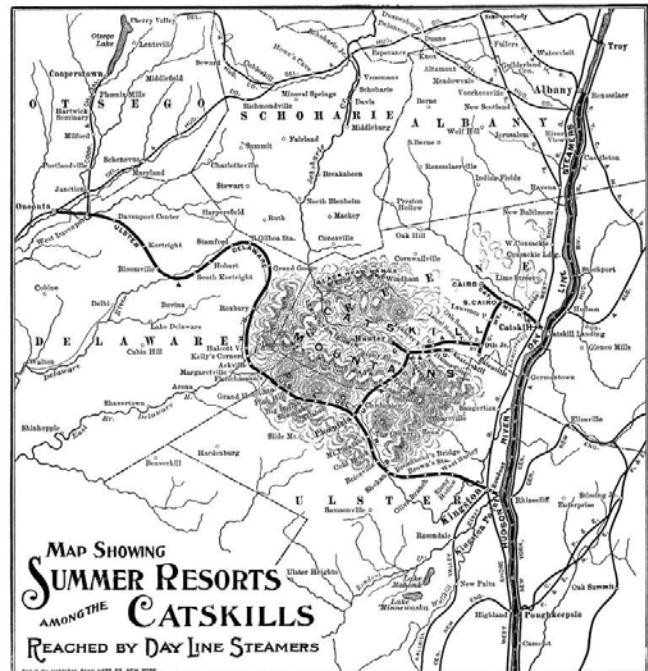


Figure 1 - Greene County Historic Railroads

3. The Catskill Mountain Railroad (CMRR) extended almost 16 miles from the Catskill waterfront to the hamlet of Palenville. The railroad, which served primarily as a passenger line with 3 foot gauge tracks, was intended to operate seasonally. Construction was completed in 1882. An extension to Cairo, NY was completed in 1885 to carry both goods and passengers. The freight produced in Cairo, shale brick, helped keep the railroad profitable in the short term, but the line closed in 1918 due to bankruptcy.

4. Catskill and Tannersville Railroad, nicknamed the Huckleberry, was a 3 foot gauge track that extended to the west from the Catskill Mountain House and expanded upon the Catskill Mountain Railroad. This track ran parallel to the competing Ulster & Delaware Railroad - Kaaterskill extension. For a period of time, these lines ran jointly to allow passengers to travel to Tannersville. 5. The Otis Elevating Railroad was a cable railroad built in 1892 to provide a direct connection to the Catskill Mountain House. The rail line traversed 7,000 feet and climbed 1,630 feet. It was designed as a two car system, each carrying 75 passengers. The Otis Elevating Railroad connected to the Catskill Mountain Railroad at Otis Junction Station to the east, and Catskill and Tannersville Railroad at Otis Summit Station to the west.



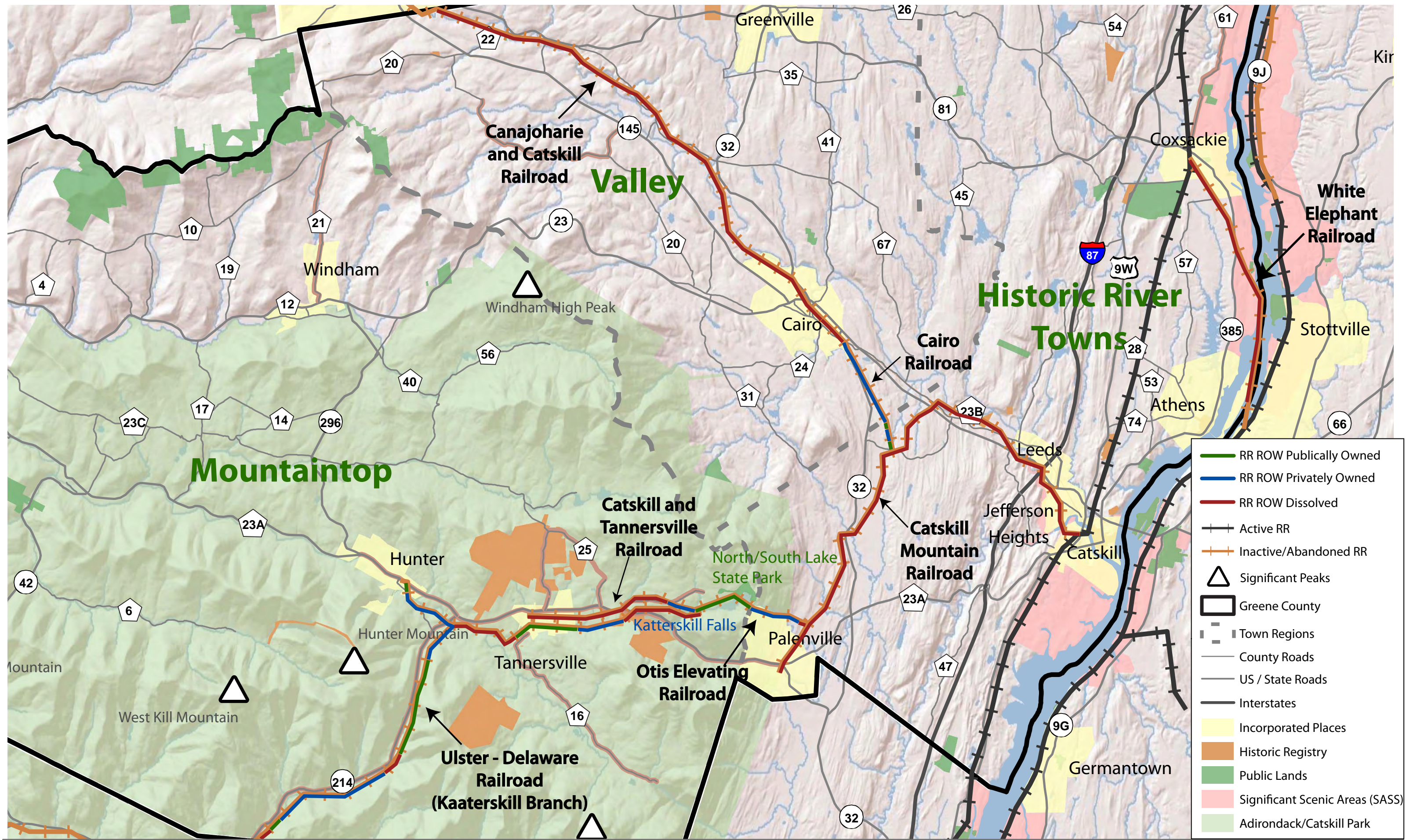
Figure 2 - Otis Elevating Railroad

6. The Canajoharie and Cairo Railroad ran 26 miles from Catskill, NY to Potters Hollow, NY, generally following the Catskill Creek. The railroad was never completed to reach its intended destination of Canajoharie. Construction began in 1836 using wooden rails topped with strap iron. Passengers and freight were hauled by horse drawn cars. The railroad only operated until 1842 when a bridge collapsed under the weight of a train. A historic marker is still present at this location on Route 145, approximately 2.5 miles west of East Durham.

#### Summary of Greene County Railroad Corridors:

- West Shore Line - active railroad line
- White Elephant Railroad - abandoned; right-of-way no longer intact
- Ulster & Delaware Railroad - partially developed; right-of-way partially intact
- Catskill Mountain Railroad - partially developed; right-of-way partially intact
- Catskill and Tannersville Railroad - partially developed; right-of-way partially intact
- Otis Elevating Railroad - Central Hudson Gas & Electric; right-of-way intact
- Canajoharie and Cairo Railroad - historic markers located in Durham







## 2.2 Multi-Use Paths

The Tannersville Bike Path, also known as the Huckleberry Multi-Use Trail, is one of the few shared-use paths within Greene County. It is a natural surface rail-to-trail connection extending approximately 2.7 miles near the town of Tannersville. The trail follows the alignment of the Huckleberry Railroad, and travels from Clum Hill Road to Bloomer Road and provides accommodations for hikers, runners, and bicyclists. There are plans to extend the trail to the Village of Hunter. A group from the Mountaintop Community Resource Committee is leading this effort. Another shared-use path, which opened on June 1, 2013, is the Kaaterskill Rail Trail (KRT). The KRT is a 1.5 mile natural surface trail. The trail is located on the abandoned railroad corridor and terminates at the Haines Falls Station. The trail has both remnants of the old railroad and stunning views of the Kaaterskill Falls.



Figure 3 – Huckleberry Multi-Use Trail  
(Tannersville Bike Path)



Figure 4 - Kaaterskill Rail Trail (KRT)

There are several other shared-use paths being planned in different areas of Greene County. Along the Hudson waterfront, a shared-use path across the Rip Van Winkle Bridge is proposed that will make a key connection to the Thomas Cole House.

The Hudson River School Art Trail is a multi-county driving and walking tour exploring the sites of Hudson River School of Arts most famous artists. An extension of the Hudson River School Art Trail is anticipated to connect to the Rip Van Winkle Bridge. Greene County is also part of the NYS Hudson River Valley Greenway corridor. Their mission states: *“To continue and advance the state’s commitment to the preservation, enhancement and development of the world-renowned scenic, natural, historic, cultural and recreational resources of the Hudson River Valley while continuing to emphasize economic development activities and remaining consistent with the tradition of municipal home rule.”* Located within Greene County, the Hudson River water trail, the Catskill Walking Tour, the Rip Van Winkle Bridge pedestrian path, and the Rams-Horn Livingston Trail are all part of the designated greenway system.

A walking path is also being developed in the Village of Catskill, following the creek’s edge and crossing at the Black Bridge. The Black Bridge is a critical link in implementing this trail. The abandoned railroad bridge is in need of some structural improvements and a solid deck for bicyclists and pedestrians. Funding to complete structural improvements is being sought. Another shared-use path is proposed in Prattsville

along the Schoharie Creek waterfront. This proposed trail will provide a link between Pratt Rock and Devasego Park, running parallel to Main Street. The path will run along the Schoharie Creek between Conine Field and Pratt Rock to the south and Devasego Park to the North. The 10-foot-wide paved path will connect several recreation destinations and the hamlet of Prattsville.

The Windham Path is a partially existing and proposed shared-use stone dust trail that would provide connections between some of the mountain towns, including Windham and Maplecrest. The existing trail provides a recreational opportunity for local residents and enhances the existing and proposed mountain biking trails along the Route 23 corridor, such as the Elm Ridge Trail. When completed, the path will also provide an alternative mode of transportation between these mountain biking destinations.

### Summary of Existing and Proposed Multi-Use Paths

- Huckleberry Multi-Use Trail (Tannersville Bike Path) – existing stone dust trail
- Rip Van Winkle Bridge Path – proposed
- Hudson River School Art Trail
- Proposed walking loop along the Catskill Creek and over the Black Bridge in Catskill
- Windham Path – proposed walking loop between Windham and Maplecrest
- Prattsville Riverwalk – proposed shared-use path along the Schoharie Creek.



Figure 5 - Windham Path

## 2.3 Hiking Trails

Hiking is a popular activity that has a long history in Greene County for residents and visitors. The Long Path, a 347-mile-long trail, travels from Fort Lee, NJ to Altamont, NY and is a major trail that crosses through Greene County. Originally, the Long Path was created as an unmarked hiking trail. Over time, the trail has developed into a popular attraction for hikers, with the Catskill Mountain section of the trail being the most used. The Long Path is divided into three sections - the Northern, Catskill, and Southern -



and a different group manages each section of the trail. In the Catskills, the Long Path is managed by the Catskill Trails Committee.

The Escarpment Trail overlaps the Long Path in Greene County. This 24-mile-long trail provides stunning views of the Hudson River Valley, traversing the seven peaks within the Catskills Mountain Range. The trail is cleared, maintained, and marked with blue markers for the entire length of the trail. The Escarpment Trail provides access to history, connecting many of the significant arts sites including the North-South Lake area. There are several opportunities for camping, including two lean-tos, making a weekend trip along the trail appealing.

In addition to these two longer trails, the NYS Department of Conservation (NYSDEC) also maintains a significant network of hiking trails in the Catskill Park. NYSDEC provides information about these trails and produces trail maps. One of the most notable in Greene County is the Spruceton Trail, which leads to the Hunter Mountain Fire Tower. After a 3.5 mile hike, following the blue marked trail, hikers reach a 60 foot fire tower, located at the summit of Hunter Mountain. This is one of the five fire towers still remaining in the Catskill Mountains.

There are also several less challenging hiking opportunities. A hiking trail along Tannersville Creek, on the north side of the hamlet, has been completed by the Hunter Foundation. The Siuslaw Model Forest, in the Town of Cairo also provides educational hiking experiences throughout a 142-acre campus. This model forest is operated by the Cornell Cooperative Extension of Greene County and is part of the Agroforestry Center. Advancing this educational resource is a great opportunity for Greene County.

Several notable nature preserves with hiking trails are located in the Valley and Town areas of Greene County. The Hannacroix Creek Preserve is located in northeast New Baltimore and includes 113 acres of preserved land. There are several hiking trails located here, including the Hudson River Interpretive Trail. The 52-acre Cohotate Preserve is located north of Town of Catskill and provides a 2-mile-long hiking loop with views of the Hudson River. Located nearby in the Town of Athens is the Willows at Brandow's Point, a historic home on the national register. The RamsHorn-Livingston Sanctuary is located along the Hudson River, east of the Village of Catskill. In the Town of Coxsackie, there are three preserves: the Four Mile Point Preserve, Coxsackie Island Preserve, and the Rasmussen Wildlife Preserve. Each of these preserves offers unique attractions and scenic vistas.



Figure 6 – *View on the Catskill, Early Autumn* by  
Thomas Cole



Figure 7 - View from the Willows at Brandow's Point



Prattsville has several waterfalls within the community but very little access to them. These waterfalls are located on the Schoharie Creek to the south and north of Prattsville, the Huntersfield Creek within the hamlet, and the Batavia Kill to the east. These waterfalls can be linked together with a hiking trail to provide access and also market the area. The waterfall trail can also be linked with existing trails at Pratt Rock.

There are several other opportunities for expanding hiking in Greene County. By linking existing trails and completing several gaps, it is possible to create a mountain top loop hiking trail that would provide access to a core group of the highest peaks within Greene County. This hiking loop would allow for additional multi-day hikes without having to backtrack along the trail.

### Summary of Existing Hiking Trails

- The Long Path – 347 mile hiking trail
- Escarpment Trail – 24 mile hiking trail
- NYSDEC Catskill Park hiking trails
  - Spruceton Trail – 3.5 mile hiking trail to the Hunter Mountain Fire Tower
- Tannersville Creek Trail
- Siuslaw Model Forest – 142 acre campus operated by the Cornell Cooperative Extension
- Hannacroix Creek Preserve – 113 acres of preserved land with several hiking trails, including the Hudson River Interpretive Trail
- Cohotate Preserve – 52 acre preserve with a 2 mile hiking trail
- Prattsville Waterfall Hike – proposed hiking trail connecting existing waterfalls and hiking trails
- Top of the Catskills Loop – proposed multi-day hiking trail

## 2.4 Bikeways

Greene County has several unofficial on-road biking routes throughout the County and specifically in the Mountain Region, and there are opportunities for additional routes. There are no New York State designated bike routes within Greene County; however Route 9W has been identified as a good north-south bike route, providing paved shoulders and making connections between the historic river towns. Alternatively, County Route 61 and Route 385 link together to complete the Hudson River Valley Greenway bike route. This provides another, lower volume, north-south biking route through Greene County.

Embought Road has been identified as an additional alternative for an on-road bike route southeast of the Town of Catskill because of its lower traffic speeds and volumes and roadway conditions. County Route 23A has also been identified as a good east-west bike route, but shoulder and signage improvements are needed to increase safety and encourage additional use of this route.

## Tourism Trails Plan

The mountain top on-road bicycle routes (local, county, and state roads in the Mountain Region) need signage and shoulder improvements. These bicycle routes will provide access to a number of destinations, including Windham and Hunter Mountains, and link the mountain towns with on-road accommodations.

The County is also quickly becoming an East Coast leader in mountain biking. The existing ski resorts at Windham and Hunter mountains provide a unique opportunity for this type of recreation and also bring economic benefits during the summer months. There are two significant mountain biking parks that are being developed, including the Windham Mountain Bike Park and the Round Top Mountain Biking Association Trail. Additional trails are being developed on NYSDEC property at Elm Ridge and Mount Hayden along Route 23 between Windham and Round Top.

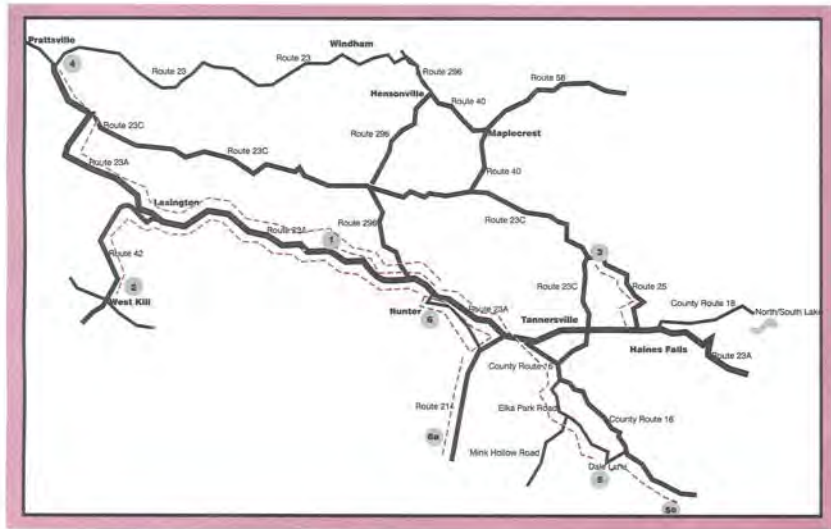


Figure 8 – Mountain Top On-road Bicycling Routes

### Summary of Existing Bikeways

- On-Road Bicycling Network: Route 9W; County Route 61; Route 385; Embought Road; Route 23A; Mountain Top bicycle routes
- Mountain Biking Network: Windham Mountain Bike Park; Elm Ridge; Mount Hayden; Round Top Mountain Biking Association Trail

## 2.5 Winter Trails

Greene County is home to two ski resorts, Windham and Hunter mountains, both of which offer lift-serviced skiing and snowboarding. Both resorts feature new and upgraded lifts, enhanced snow-making capabilities and a variety of terrain for people of all skill levels. Cross-country skiing, snowshoeing and backcountry skiing are also available. The Cross Country Ski and Snowshoe Center in Windham, the Mountain Trails X-C Center in Tannersville, the North-South Lake State Park in Haines Falls, and the trails of the forest preserve provide access for winter trails.

### Summary of Winter Trails

- Windham: downhill ski, snowboard, cross-country ski, and snow shoe trails
- Hunter: downhill ski, snowboard, cross-country ski, and snow shoe trails
- North-South Lake State Park: cross-country ski/ snow shoe trails

## 2.6 Water Trails

Water trails, or ‘blueway trails’, offer a different type of recreational opportunity on the water. The nationally designated Hudson River Water Trail, forming the eastern boundary of Greene County, runs from Saratoga County to Manhattan, NY. There are several access points, picnic areas, and campsites located along the Greene County Hudson River shores associated with the Hudson River Water Trail. The canoe and kayak launch at Cornell Park in New Baltimore is popular for access to Schodack Island State Park and has been identified for improved water access. A spur water trail, the Hudson River Birding Trail, is located in the northern area of the river towns. Additional access should be provided to the Middle Ground Flats and Rogers Island, north of the Rip Van Winkle Bridge. Special attention should be paid to providing a water trail connection in each of the towns located along the Hudson River.

A NYSDEC fishing trail is proposed along the streams in Greene County, such as the Schoharie Creek and West Kill Creek. Some sections are navigable and water access to these designated locations can be provided. A natural surface trail should be considered to make these connections as well. A larger driving route linking these destinations can also be developed.

### Summary of Water Trails

- Hudson River Water Trail – existing water trail; needs improved access and amenities
- NYSDEC Fishing Trail – proposed driving and hiking trail with creek access

## 2.7 Vistas

There are many distinguished sites and scenic vistas located in the mountains of Greene County. Two are identified here: The Five State Lookout and Kaaterskill Falls. The Five State Lookout, located along Route 23, is a state-owned parking area. Road-bicyclists and scenic drivers alike can stop here to enjoy the view. Improvements to this site, including landscaping and a wayfinding information will enhance the beauty of this overlook and provide information on other sites to visitors.

Kaaterskill Falls has been a destination for many generations. The falls are located on the Escarpment Trail, west of North and South Lakes. Kaaterskill Falls offers the highest cascading waterfall in New York State. This scenic view inspired many of the Hudson River Art School’s famous paintings. A safety & access study to identify safe and sustainable access options to the Falls is recommended.

Although not a scenic overlook itself, the Mountain Top Historical Society is located along Route 23A in Tannersville, NY provides access to the North-South Lake State Park and overlooks. The property offers a visitors center, area information, and hiking trails. The Mountain Top Historical Society is located close to the Kaaterskills Falls and North-South Lake and provides a critical link to these destinations and scenic views. Completion of the Tannersville rail-trails will provide an off-road trail link from the Mountain Top Historical Society to these destinations.



Figure 9 - Kaaterskill Falls

### Summary of Vistas

- Five State Lookout – existing, needs improvements
- Kaaterskill Falls – existing, needs safety and access improvements
- Mountain Top Historical Society – access to scenic overlooks - existing, needs parking and amenity improvements



Figure 10 - Mountain Top Historical Society

## 2.8 Historic and Cultural Trails

Historic and cultural trails are an important element to tourism and community identity. There are several historic walking trails already designated around Greene County. This includes the Pratt Museum Historic walking trail located in Prattsville, a historic walking tour of the Village of Catskill, and another historic walking trail in Durham. Each of these walking tours have been identified and advertised at varying levels. The Prattsville Historical Society leads the walking tour, while the Catskill walking tour is provided by map. The Catskill walking map needs to be updated and reprinted. The Town of Durham walking tour has never been officially mapped or advertised, but the town offers many historical sites that could be included on such a walking tour. It is recommended that tour maps of each of these locations and trails be done, and that historic markers be installed as needed.

Greene County is home to a number of well-known golf courses. The operators of these courses have developed a promotional golf trail - the Rip Van Winkle Golf Trail. Golfers that bicycle to each of the courses in a season are entered into a raffle. Implementing bicycle connections will only further this program.

Two additional cultural resource trails were mentioned by project stakeholders. At the December 6, 2012 workshop, a local geologist mentioned that there are several locations within the County with significant geological interest, including some along Route 23 near the NYS Thruway exit that is visited frequently by students from college geology programs. Local geologists are familiar with these locations. Developing a marked geology trail would both highlight these locations and provide better access.

Participants also mentioned Greene County's agriculture as a subject for a driving tour or trail. A trail might be created linking the key agricultural areas, such as farm stands and some of the more prominent farms in the county.

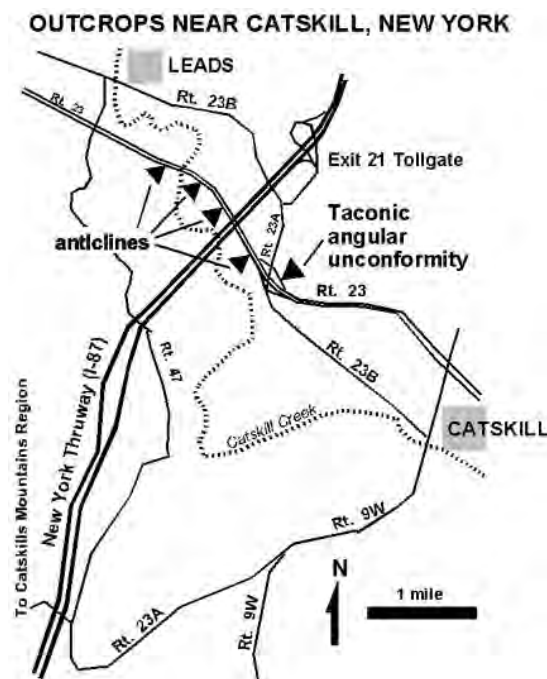


Figure 11 – Locations of Geological Outcroppings

### Summary of Historic and Cultural Trails

- Pratt Museum Historic Walking Trail – existing
- Catskill Historic Walking Trail – existing , needs improved wayfinding and signage
- Durham Historic Walking Trail – existing, needs improved wayfinding and signage
- Rip Van Winkle Golf Trail – existing
- Town of Catskill Geological Trail – proposed
- Agricultural Trail – proposed

## 2.9 Scenic Byways

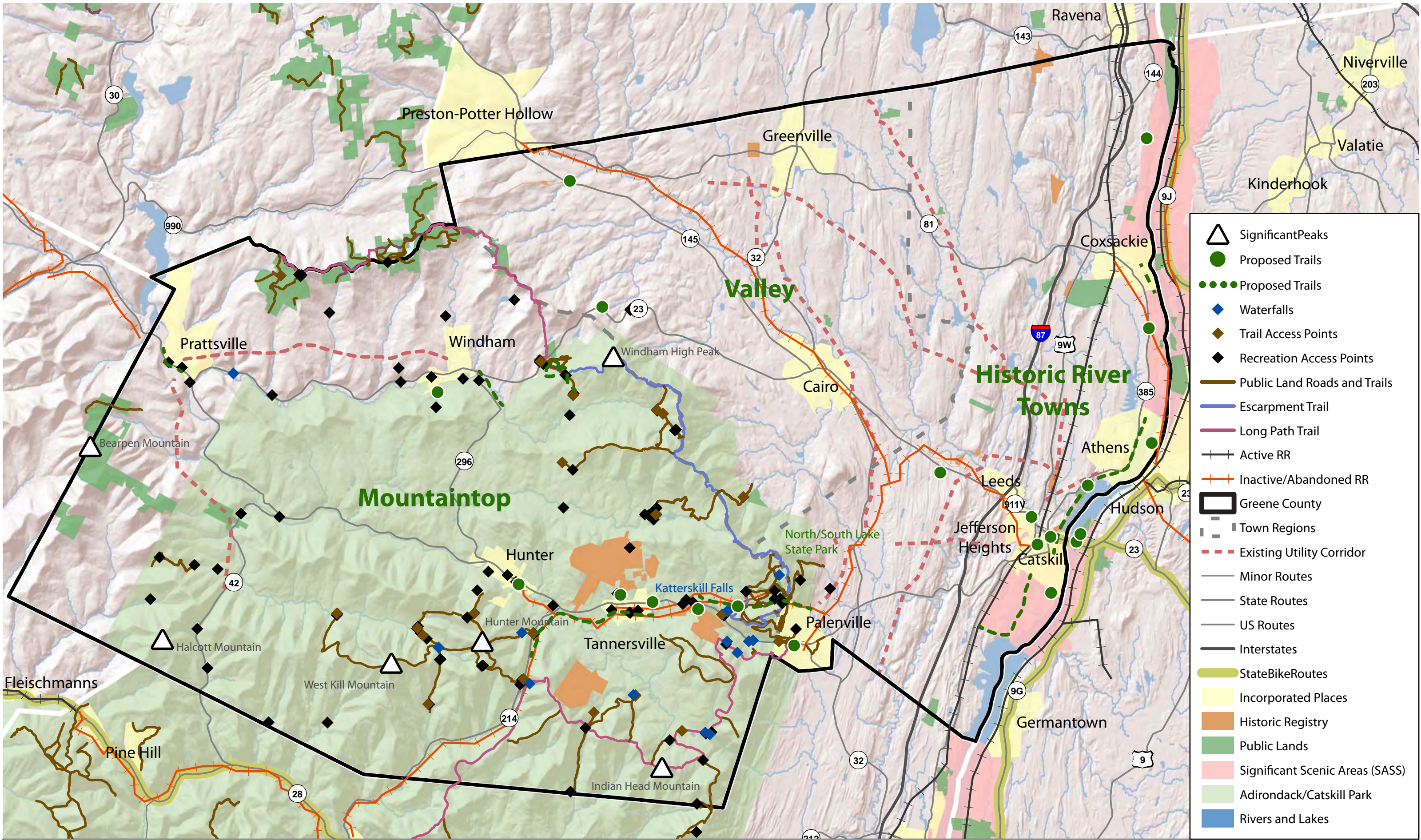
Scenic byways are state- and federally-recognized touring routes that highlight scenic, cultural, historic, or archeological areas. Approximately 40 miles of roadway within Greene County are state- designated scenic byways. Scenic byway designation signs and historical markers can be seen along these roadways. There are scenic byway sections that are currently or have recently been before the state for approval. The Mountain Clove Scenic Byway, in the Kaaterskill Clove area, has been approved, and Durham Scenic Byway plan, in the Town of Durham, is under review.

A county-wide wayfinding system would unite the scenic byway system as well as the on-road bicycling network. Wayfinding reassures visitors and allows the adventurous tourist to explore. Greene County has a wide variety of attractions that should be highlighted with a full wayfinding system.

### Summary of Scenic Byways

- Mountain Clove Scenic Byway (existing)
- Durham Scenic Byway (under consideration)
- County-wide wayfinding system – proposed





**- Tourism Trails Plan -**  
**- Existing & Proposed Conditions in Greene County, NY -**



### 3 Greene County Trails Plan: Catalytic Projects

The identification of catalytic projects was part of the trail planning process. Following a stakeholder involvement process, a list of potential trail initiatives was developed. A matrix with weighted numerical values was then created and each trail project /program was evaluated by the planning team. The matrix criteria included the following factors:

- **Transportation:** The project provides infrastructure and access for non-motorized transportation between destinations
- **Economic / Tourism Benefits:** The trail supports and encourages tourism and job creation in the County
- **Recreation:** The project provides trails and amenities for non-motorized outdoor recreation
- **Multiple Uses:** The trail provides for a variety of trail users and four season uses
- **Agency / Management / Landowner Support:** The project has the approval and partnership support required for project development
- **Cost:** The trail project provides value for the proposed investment
- **Implementation:** The trail has the ability to be implemented within available or potential resources

Each factor was given a maximum value, between 10 and 20, depending on their importance to Greene County. The steering committee and project team determined a score for each factor for each project that was identified. Projects were then ranked based on the total score for each project. Once the projects were evaluated, the matrix was categorized by the following types of trail projects and programs:

**1. Phase I Current Initiatives:** These are trail projects and programs that are already in progress. This can include projects that have existing organizations working on physical trail improvements, trails that have already completed feasibility or design efforts, and projects that have funding resources identified. These current projects represent active priorities for Greene County, and are included in the plan as part of the foundation of the County's growing trail system.

**2. Phase II Catalyst Capital Projects:** These are trail infrastructure projects that scored the highest number of points in the prioritization matrix. High-scoring projects have multiple benefits, serve both transportation and recreation, and have the potential to be implemented in the near future. These projects connect multiple communities together or provide a benefit that is important at a County or regional level. A representative group of these projects was selected to be developed into detailed project descriptions that are presented as part of this plan. Projects that are not listed as County-level priorities are still important to local communities, and they are included as part of the plan so that they can be advanced using local resources.

**3. Thematic Trails:** These are initiatives that emphasize the promotion of touring routes, scenic byways and heritage/cultural itineraries that do not focus on capital construction projects. These initiatives are important for tourism and economic development and can be implemented through promotional campaigns, maps and various media.

## Tourism Trails Plan

The evaluation matrix is shown on pages 22 and 22 and a map with each project identified is shown on page 23. Using the matrix, five core areas were identified to be highlighted as short-term improvements. The Catalyst Projects are shown in the evaluation matrix on page 24 and the map on page 25. These projects are described below and in more detail in the following project description sheets.

**1. Kaaterskill Clove Trails:** This area is central to tourism and recreation in Greene County, with the North-South Lake State Park campgrounds being one of the most popular camping areas in upstate New York. The projects in this area will promote economic development and create sustainable tourism opportunities.

- **Palenville Hamlet Plan:** Develop a trail-oriented community plan, and create a gateway for the County Trails system including transit connections to Kaaterskill Falls and Hunter.
- **Mountain Top Historic Society:** Develop a tourism center / trailhead, with a connection to Kaaterskill Falls via the Kaaterskill Rail Trail.
- **Kaaterskill Falls:** Provide improved trails and access to the upper viewing area and lower access area, with a spur trail connection to North-South Lakes State Park.
- **Complete the Rail Trails:** Continue development of the Kaaterskill Rail Trail, Huckleberry Trail, and the trail extension to Tannersville.

**2. Mountain Bike “Ride Center”:** Efforts are well underway in Windham and Round Top to provide infrastructure and promote the sport of mountain biking. Two projects are proposed in the area to further the goal of creating an International Mountain Bike Association (IMBA) “Ride Center” within Greene County that will attract riders, beginner through advanced, from across the country.

- **Windham Shared-Use Path:** Extension of the existing trail with a focus on the in-town connections, and to link up the mountain bike areas under development in Windham
- **Round Top MTB Network:** improve public access, wayfinding and trail conditions for the growing singletrack network in Round Top.

**3. Town Center Connections:** Connections to and within town centers is important for tourism as well as quality of life for residents. Trail connections to the centers of Catskill and Prattsville will be detailed as examples for each of the communities in Greene County.

- **Village of Catskill:** Complete the Black Bridge rehabilitation and Catskill Creek walking loop. Provide a trail connection from the Thomas Cole House to the Rip Van Winkle Bridge.
- **Prattsville:** Develop a trail to connect Pratt Rock, Conine Field and the center of town.

**4. Scenic Vistas:** The views from the Catskill Mountains and the shores of the Hudson River are known by many through the works of famous artists of the Hudson River School. Enhancing and promoting these historic views can generate additional tourism opportunities, especially when connected with the Greene County trails system.

- **Five State Overlook:** Improve the existing state-owned parking area with an enhanced viewing area, visitor information and wayfinding at the important scenic lookout site.

**5. Natural Trails:** Natural surface trails provide opportunities for multiple trail uses, including hiking, birding, fishing, snowshoeing, and cross-country skiing. There are many shorter trails throughout the

County and also a few very well-known and popular long-distance trails, including the Escarpment Trail and the Long Path. Expanding on these trails and developing more opportunities will bring more trail users to Greene County.

- **Top of the Catskills Loop:** a hiking/ snowshoeing trail that will connect the northern and southern ends of the Escarpment Trail in a loop following the peaks of the Catskill Mountains. This will provide a multi-day loop hike within Greene County.



Greene County Trails Plan: Projects Evaluation Matrix															
Project Number	Location	Type	Status	Significance	Projects	Transportation (15)	Economic / Tourism Benefits (20)	Recreation (15)	Multiple Uses (10)	County / Agency Support (15)	Cost (10)	Feasibility / Implementation (15)	Total (/100)	Notes	
1		County	Scenic Byways	Thematic Trails	County	Scenic Byways (Durham, Mountain Clove)	10	20	5	2	15	5	10	67	Enhance existing county routes and add bicycle accommodations
2		County	Natural Surface Trails	Thematic Trails	Regional	DEC Fishing Trail	2	10	10	2	15	10	15	64	Connect the DEC fishing spots with a hiking trail
3		County	Scenic Byways	Thematic Trails	County	Rip Van Winkle Golf Trail	2	5	15	2	10	10	10	54	Connect the golf courses in Greene County with bicycle accommodations
4		County	Natural Surface Trails	Capital Projects	Regional	Susquehanna Turnpike Trail	2	2	5	5	5	2	2	23	Develop a trail along the Susquehanna Turnpike alignment (Route 23B)
5		County	Scenic Byways	Thematic Trails	County	County-wide wayfinding	10	15	10	5	10	8	10	68	Implement a county-wide wayfinding system
6	A	Mountain	Rail Trails	Capital Projects	Regional	Huckleberry Trail Extension to Tannersville	15	20	15	10	15	5	12	92	Extend the Huckleberry Trail to Tannersville following the old railroad corridor as much as possible
6	B	Mountain	Rail Trails	Current Initiatives	Regional	Kaaterskill Rail Trail (KRT)	15	20	15	10	15	5	8	88	Develop the Kaaterskill Rail Trail in Hunter, NY
6	C	Mountain	Rail Trails	Capital Projects	County	Kaaterskill Falls to North-South Lakes	10	20	15	10	15	5	10	85	Shared use path between Kaaterskill Falls and North-South Lake
6	D	Mountain	Rail Trail	Capital Projects	Regional	Dolan's Lake Park to Tannersville (rail trail)	15	20	15	10	15	5	10	90	Connect trail at Dolan's Lake to Tannersville
6	E	Mountain	Destination	Capital Projects	County	Kaaterskill Falls Viewing Platform	10	20	10	5	15	5	10	75	Provide a safe viewing platform at Kaaterskill Falls as recommended in Kaaterskill Wild Forest Unit Management Plan.
6	F	Mountain	Rail Trails	Capital Projects	Regional	Otis Rail Trail (central hudson power line)	2	20	10	5	10	5	5	57	Provide interpretation, historic markers
7	A	Mountain	Scenic Byways	Thematic Trails	Regional	Mountain Top Bike Routes (signage)	5	5	8	0	7	10	12	47	Signage on mountain top bicycle routes around Windham, Hunter, and Tannersville
7	B	Mountain	Destination	Capital Projects	Regional	Five State Lookout Parking Area (Rt 23)	5	15	15	7	15	5	10	72	Improve the Five State Lookout Parking Area. Add amenities providing tourist information, wayfinding and interpretation.
8		Mountain	Natural Surface Trails	Capital Projects	Regional	Palenville Long Path connection (bridge)	5	20	15	5	15	5	5	70	Replace the old swing pedestrian bridge near Palenville to improve connections to the Long Path
9		Mountain	Natural Surface Trails	Capital Projects	Local	Prattsville waterfall access	2	10	5	2	5	5	5	34	Improve access to the three waterfalls in Prattsville (DEC property)
10		Mountain	Shared-Use Path	Capital Projects	Local	Prattsville Riverwalk	15	20	15	10	15	5	8	88	Develop a greenway along the Schoharie Creek near Main Street in Prattsville
11		Mountain	Natural Surface Trails	Current Initiatives	Regional	Windham Path	15	20	15	10	15	5	8	88	Redevelop streamfront in Windham with a shared use path and/or mountain biking trail
12		Mountain	Destination	Current Initiatives	County	Mountain Top Historical Society (MTHS)	15	20	15	10	15	5	12	92	Further develop the Mountain Top Historical Society trails; visitor center and multi-modal trailhead
13		Mountain	Natural Surface Trails	Current Initiatives	Local	Creekwalk - Tannersville	10	15	10	8	10	5	10	68	Improve the existing single track hiking trail along the creek in North Tannersville
14		Mountain	Natural Surface Trails	Capital Projects	Local	Hunter / Schoharie Creek pedestrian bridge	15	15	15	10	10	5	5	75	Replace the Hunter / Schoharie pedestrian bridge; loop with Dolan Lake
15		Mountain	On-Road Route	Capital Projects	Regional	Haines Falls - County Road 23A bike route	5	10	10	2	5	6	10	48	Develop on-road bicycle facilities on State Route 23A
16		Mountain	Culture and Hertiage	Thematic Trails	Local	Pratt Museum Historic Trail	2	5	5	5	10	10	10	47	Enhance and market the existing Pratt Museum walking tour
17		Mountain	Natural Surface Trails	Capital Projects	Regional	Top of the Catskills Loop (Windham - Prattsville - Hunter loop hiking trail)	2	20	15	10	10	8	10	75	Develop a hiking loop trail along the mountain ridges near Windham, Prattsville and Hunter
18		Mountain	Natural Surface Trails	Current Initiatives	Regional	Windham Mountain Bike Park	2	20	12	5	10	6	10	65	Implement a mountain biking park at Windham Mountain
19		Mountain	Natural Surface Trails	Current Initiatives	Regional	Round Top Mountaintop Biking Association Trail	2	20	12	5	15	4	15	73	Implement additional mountain biking trails in the Round Top area
20		Town	Rail Trails	Current Initiatives	County	Black Bridge / Loop	15	20	15	10	15	2	15	92	Open Black Bridge to pedestrian traffic and develop path loop around Catskill
21	A	Town	On-Road Route	Current Initiatives	Regional	Hudson River Valley Greenway Bike Route	12	20	15	10	5	2	2	66	On - street bike path along Route 61 and Route 385

Greene County Trails Plan: Projects Evaluation Matrix															
Project Number		Location	Type	Status	Significance	Projects	Transportation (15)	Economic / Tourism Benefits (20)	Recreation (15)	Multiple Uses (10)	County / Agency Support (15)	Cost (10)	Feasibility / Implementation (15)	Total (/100)	Notes
21	B	Town	On-Road Route	Capital Projects	Local	Embought Road Bike Route	2	2	10	2	5	5	10	36	Improve bicycle accommodations
22	A	Town	Shared-Use Path	Current Initiatives	Regional	Rip Van Winkle Bridge, with connection to Cole House	10	20	15	10	15	5	5	80	Bicycle and pedestrian connection across the bridge with connection to the Cole House. Provide parking near the bridge.
22	B	Town	Shared-Use Path	Current Initiatives	County	Hudson River Arts School Trail	10	20	10	5	15	5	10	75	Approved for \$50,000 CFA funding.
22	C	Town	Shared-Use Path	Capital Projects	Regional	Athens to Coxsackie - Hudson River Greenway	15	20	15	10	5	2	2	69	Develop a greenway between Athens and Coxsackie
23		Town	On-Road Route	Current Initiatives	Local	Town of Catskill Walking Loop	5	15	10	2	15	8	15	70	Catskill walking tour, including historic Main Street
24	A	Town	Rail Trails	Capital Projects	Regional	Catskill to Cairo (rail trail)	5	15	15	10	5	2	2	54	Provide interpretation, historic markers
24	B	Town	Rail Trails	Capital Projects	Regional	Catskill to Palenville (rail trail)	5	15	15	10	3	1	1	50	Provide a shared use path on the old railroad alignment
24	C	Town	Rail Trails	Capital Projects	Regional	Catskill to Austin Glen (rail trail)	5	15	15	10	3	1	1	50	Provide a shared use path on the old railroad alignment
24	D	Town	Rail Trails	Capital Projects	Regional	Leeds to Austin Glen (rail trail)	5	15	15	10	3	1	1	50	Provide a shared use path on the old railroad alignment
24	E	Valley	Rail Trails	Capital Projects	Regional	Palenville to Cairo (rail trail)	5	15	15	10	3	1	1	50	Provide a shared use path on the old railroad alignment
24	F	Valley	Rail Trails	Capital Projects	Regional	White Elephant Rail Line	15	10	10	10	5	2	2	54	Provide a shared use path on the old railroad alignment
25		Town	Scenic Byways	Thematic Trails	Regional	Catskill Geology Trail	2	15	10	2	10	10	15	64	Develop a trail connecting key geological features in Catskill
26		Town	Natural Surface Trails	Capital Projects	Regional	Cohotate Preserve to The Willows	2	2	10	5	5	5	5	34	Create a trail that will connect Cohotate Preserve to The Willows
27	A	Town	Water Trail	Capital Projects	Local	Middle Ground Flats / Rogers Island - water trail	2	5	10	2	5	10	10	44	Develop camping and rest sites for the Hudson River water trail
27	B	Town	Water Trail	Current Initiatives	Regional	Hudson River Water Trail - river town connections	4	20	15	4	10	10	10	73	Connect each river town to the Hudson River Water Trail
27	C	Town	Water Trail	Current Initiatives	Local	Hudson River Birding Trail	2	10	10	2	10	10	10	54	Enhance and promote the Hudson River birding trail
27	D	Town	Water trail	Current Initiatives	Local	Kayak Landing, New Baltimore	2	5	10	2	5	10	10	44	Improve access to and amenities at the kayak landing
28		Town	Natural Surface Trails	Capital Projects	Local	Cohotate Preserve to DEC property	2	2	5	5	10	5	5	34	Connect the Cohotate Preserve to nearby state owned propety
29		Town	Natural Surface Trails	Current Initiatives	Local	Hannacroix Creek Preserve	2	5	5	5	10	5	10	42	Increase hiking opportunities and educational aspects of the preserve
30		Town	On-road route	Current Initiatives	Regional	Route 9W Bike Route	5	5	10	2	5	5	10	42	Improve bicycle accommodations
31		Valley	On-Road Route	Thematic Trails	Local	Durham Historical Trail	2	5	5	2	5	10	10	39	Village of Durham on-road historic walking trail
32		Valley	Natural Surface Trails	Current Initiatives	Local	Siuslaw Model Forest Trails	2	2	15	10	10	10	10	59	Improvements to existing trails and connections to surrounding trail networks
33		Valley	Culture and Hertiage	Thematic Trails	Regional	Greene Co Agricultural Trail	2	10	5	5	5	10	10	47	Develop an agricultural trail connecting farms in Greene County

Legend:

Kaaterskill Clove Trails

MTB Ride Center

Town Center Connections

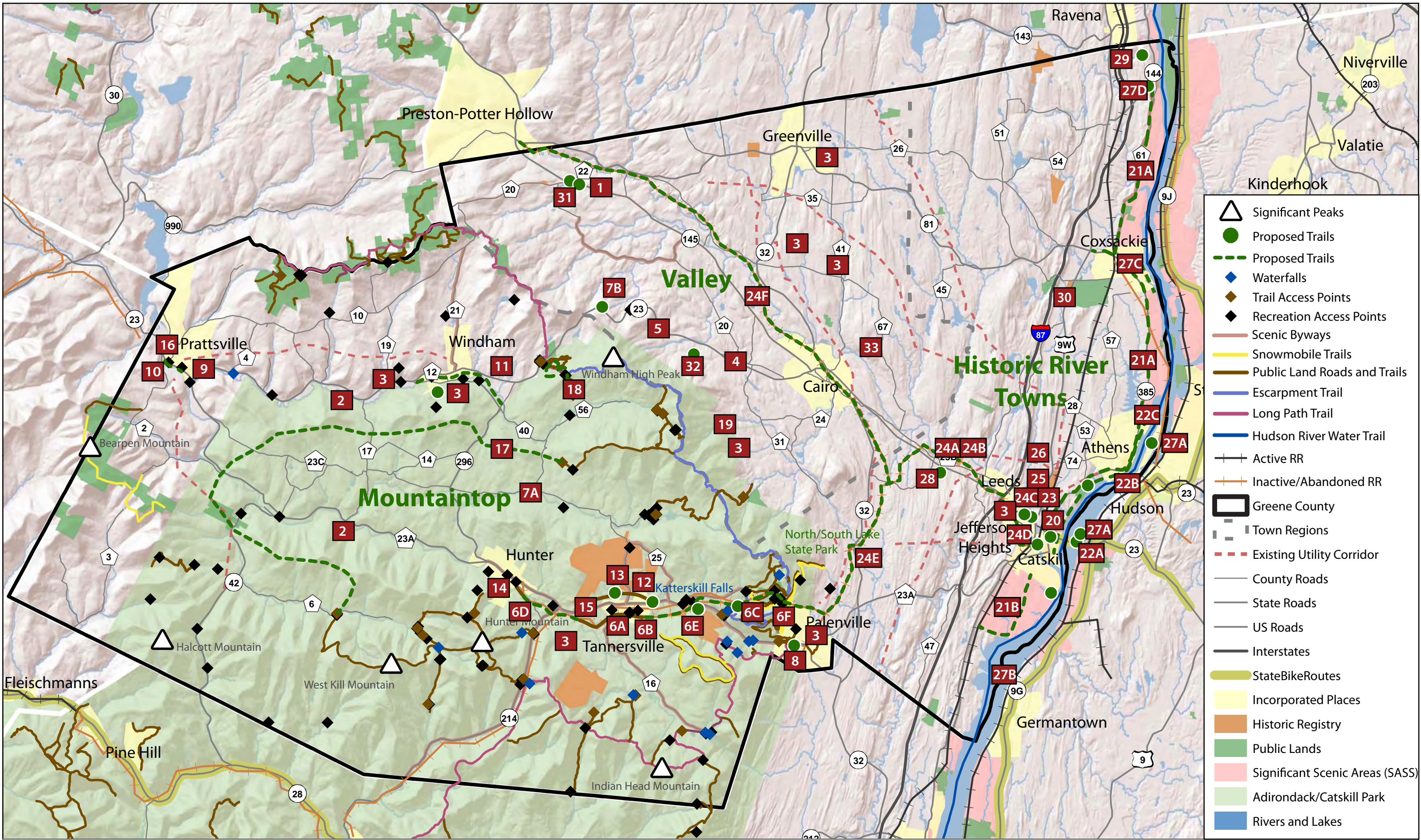
Scenic Vistas

Natural Surface Trails

Other Projects

**Decription of Scoring Factors:**  
**Transportation:** provides infrastructure and access for non-motorized transportation connections between destinations  
**Economic / Tourism Benefits:** supports and encourages tourism and job creation in the County  
**Recreation:** provides trails and amenities for non-motorized outdoor recreation  
**Multiple Uses:** provides for a variety of trail users and four season uses  
**Agency / Management / Landowner Support:** has the approval and partnership support required for project development  
**Cost:** provides value for the proposed investment (loc cost = high score)  
**Implementation:** has the ability to be implemented within available or potential resources







Greene County Trails Plan: Catalyst Projects															
Project Number		Location	Type	Status	Significance	Projects	Transportation (15)	Economic / Tourism Benefits (20)	Recreation (15)	Multiple Uses (10)	County / Agency Support (15)	Cost (10)	Feasibility / Implementation (15)	Total (/100)	Notes
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6	C	Mountain	Rail Trails	Capital Projects	County	Kaaterskill Falls to North-South Lakes	10	20	15	10	15	5	10	85	Shared use path between Kaaterskill Falls and North-South Lake
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7	B	Mountain	Destination	Capital Projects	Regional	Five State Lookout Parking Area (Rt 23)	5	15	15	7	15	5	10	72	Improve the Five State Lookout Parking Area. Add amenities providing tourist information, wayfinding and interpretation.
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12		Mountain	Destination	Current Initiatives	County	Mountain Top Historical Society (MTHS)	15	20	15	10	15	5	12	92	Further develop the Mountain Top Historical Society trails; visitor center and multi-modal trailhead
17		Mountain	Natural Surface Trails	Capital Projects	Regional	Top of the Catskills Loop (Windham - Prattsville - Hunter loop hiking trail)	2	20	15	10	10	8	10	75	Develop a hiking loop trail along the mountain ridges near Windham, Prattsville and Hunter
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20		Town	Rail Trails	Current Initiatives	County	Black Bridge / Loop	15	20	15	10	15	2	15	92	Open Black Bridge to pedestrian traffic and develop path loop around Catskill

Legend:

Kaaterskill Clove Trails

MTB Ride Center

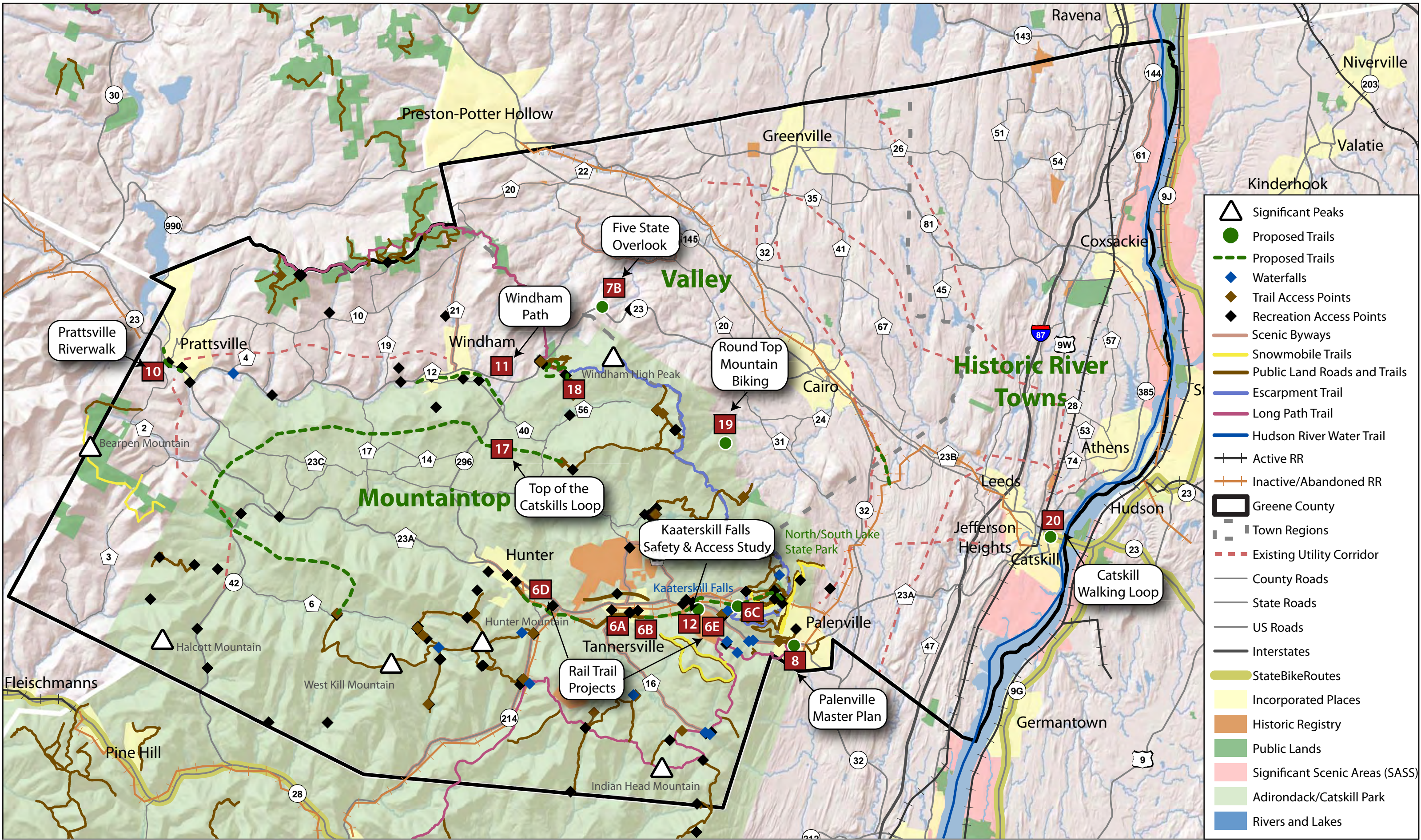
Town Center Connections

Scenic Vistas

Natural Surface Trails

**Decription of Scoring Factors:**  
**Transportation:** provides infrastructure and access for non-motorized transportation connections between destinations  
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**Agency / Management / Landowner Support:** has the approval and partnership support required for project development  
**Cost:** provides value for the proposed investment (loc cost = high score)  
**Implementation:** has the ability to be implemented within available or potential resources





- Tourism Trails Plan -  
- Catalyst Projects in Greene County, NY -



## Palenville Revitalization/Master Plan

### Description

Palenville, NY is the gateway to the Kaaterskill Clove area; however, it is an underutilized asset. . A master plan for Palenville is proposed to encourage visitors to park, ride, and walk from the hamlet to the surrounding attractions, such as Kaaterskill Falls and North-South Lake. This will reduce congestion; assist with preserving these natural environments by reducing overcrowding; encourage exploration of the area; and aid economic development. Parking access to the state land needs to be increased and there are several opportunities for this within Palenville.

Palenville is also located along the Long Path, and is a prime resupply point for hikers; however, the pedestrian swing bridge, which provided a key connection into the hamlet, was destroyed during recent storms. The bridge should be replaced and additional trail connections provided for the hamlet. Signage to key amenities such as food and lodging will further direct visitors into Palenville.

### Ownership

NYS Department of Environmental Conservation, Palenville, private land owners

### Area

3.3 square miles

### Key Land Uses/Destinations

Gateway to Kaaterskill Clove, including Tannersville and Hunter; connections to the Long Path, the Escarpment Trail, North-South Lake, Kaaterskill Falls; and additional hiking and other recreational opportunities

### Benefits & Issues

- Increase economic development
- Provide additional parking and rest areas for the Kaaterskill Clove area
- Need to acquire necessary land ownership or easements and work with NYSDEC to provide trail connections

### Potential Permits

- Town board comprehensive plan adoption
- NYSDEC permits

### Planning Level Cost Estimate

- Master Plan: Pro-Bono (\$30k equivalent)



Potential Future Visitor Center in Palenville

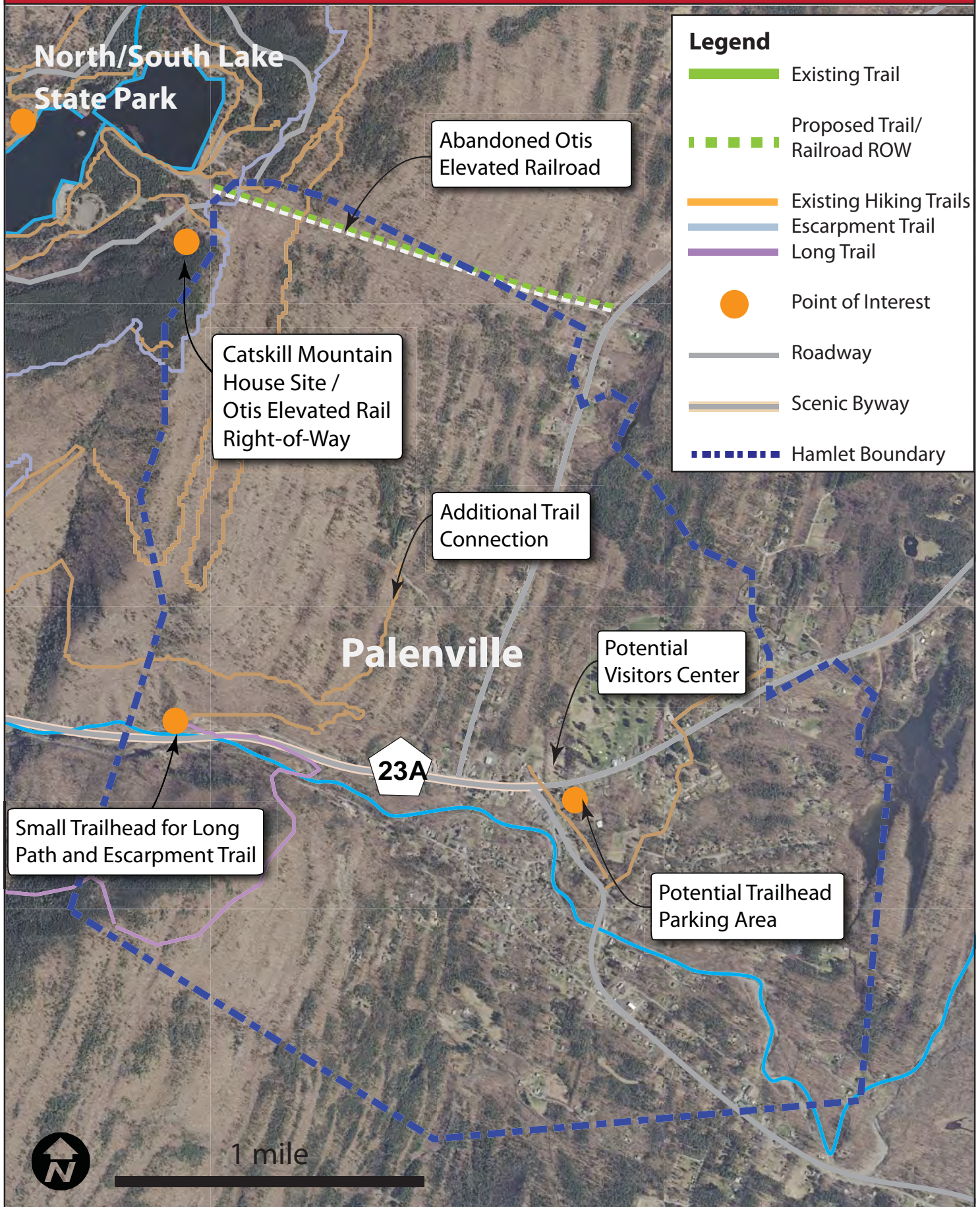


Hamlet Center / Potential Parking Area  
Palenville Hamlet Center





# Palenville Revitalization / Master Plan





## Mountain Top Historical Society Master Plan

### Description

The Mountain Top Historical Society (MTHS) site includes a visitor center and the renovated Haines Falls Station for the former Ulster & Delaware Railroad. Since the center is run through volunteer efforts, it is typically open only on the weekends. It is recommended that a master plan be completed that includes a staffing plan and the analysis of a shuttle bus service serving the Kaaterskill Clove area. Additional parking with drainage improvements should be provided for visitors. This location also serves as a trailhead for the Kaaterskill Rail Trail and a visitor's center for the area. Directional and interpretive signage to and on the Kaaterskill Rail Trail (KRT) should be provided. A mini-Catskill walking loop can be created on the property with a mix of ADA accessible and single track hiking trails.

### Type/Width

Natural surface hiking trail - 10-foot-wide stone dust surface trail

### Length

0.75 miles

### Ownership

Mountain Top Historical Society

### Key Land Uses/Destinations

Historical Society, Visitor's Center, Kaaterskill Rail Trail, Art Trail, North-South Lake, Haines Falls

### Benefits & Issues

- A trailhead for the KRT
- Potential for economic development in Haines Falls
- Historical preservation and interpretation

### Potential Permits

- Planning board approval
- Town building permits

### Planning Level Cost Estimate

MTHS Master Plan: \$40k  
 Parking Lot Improvements: \$100k  
 Mini-Catskill Walking Loop: \$50k  
 Total: \$190,000



Mountain Top Historical Society



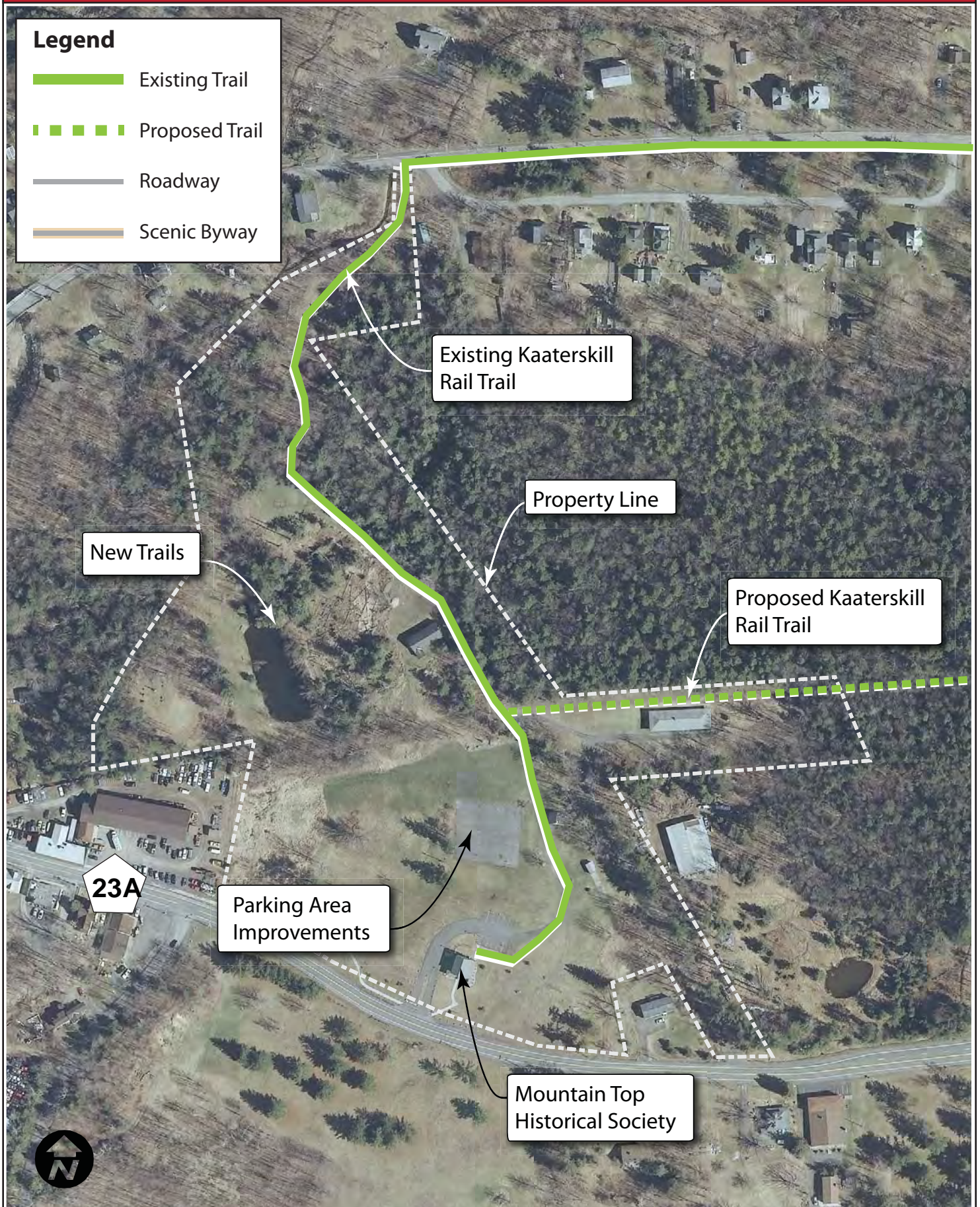
Parking Area Improvements Needed



Historic Train Depot



# Mountain Top Historical Society (MTHS) Master Plan





## Kaaterskill Falls Safety & Access Study

### Description

Kaaterskill Falls is one of the highest waterfalls in the State of New York and is a popular tourist destination for residents of NYS and beyond. An existing natural surface trail extends from the trailhead at the Kaaterskill Rail Trail and the old site of the Laurel House to the Falls. This trail leads to the top of Kaaterskill Falls, which is a popular spot for visitors; however, trying to get a good view of the falls can be dangerous. There are several locations atop and along the north side of the ridge, where a safe overlook can be created to allow visitors to enjoy the falls safely. There is a parking area for visitors accessing the lower falls, but crossing and walking along Route 23A is dangerous for visitors. A Safety & Access Study for the Kaaterskill Falls will identify safe and sustainable access options to the Falls that will conform to NYSDEC policy and compatible with the Unit Management Plan.



View of Kaaterskill Falls

### Type/Width

Mix of trail types

### Area

Approx. 100 acres

### Ownership

NYS Department of Environmental Conservation

### Key Destinations

Kaaterskill Falls, North-South Lake, Palenville,  
Tannersville, Kaaterskill Rail Trail

### Benefits & Issues

- Provide safe access to the falls
- Provide sufficient parking
- Protect and preserve the natural habitat

### Potential Permits

NYSDEC permits for implementation

### Planning Level Cost Estimate

Kaaterskill Falls Safety &amp; Access Study: \$75,000



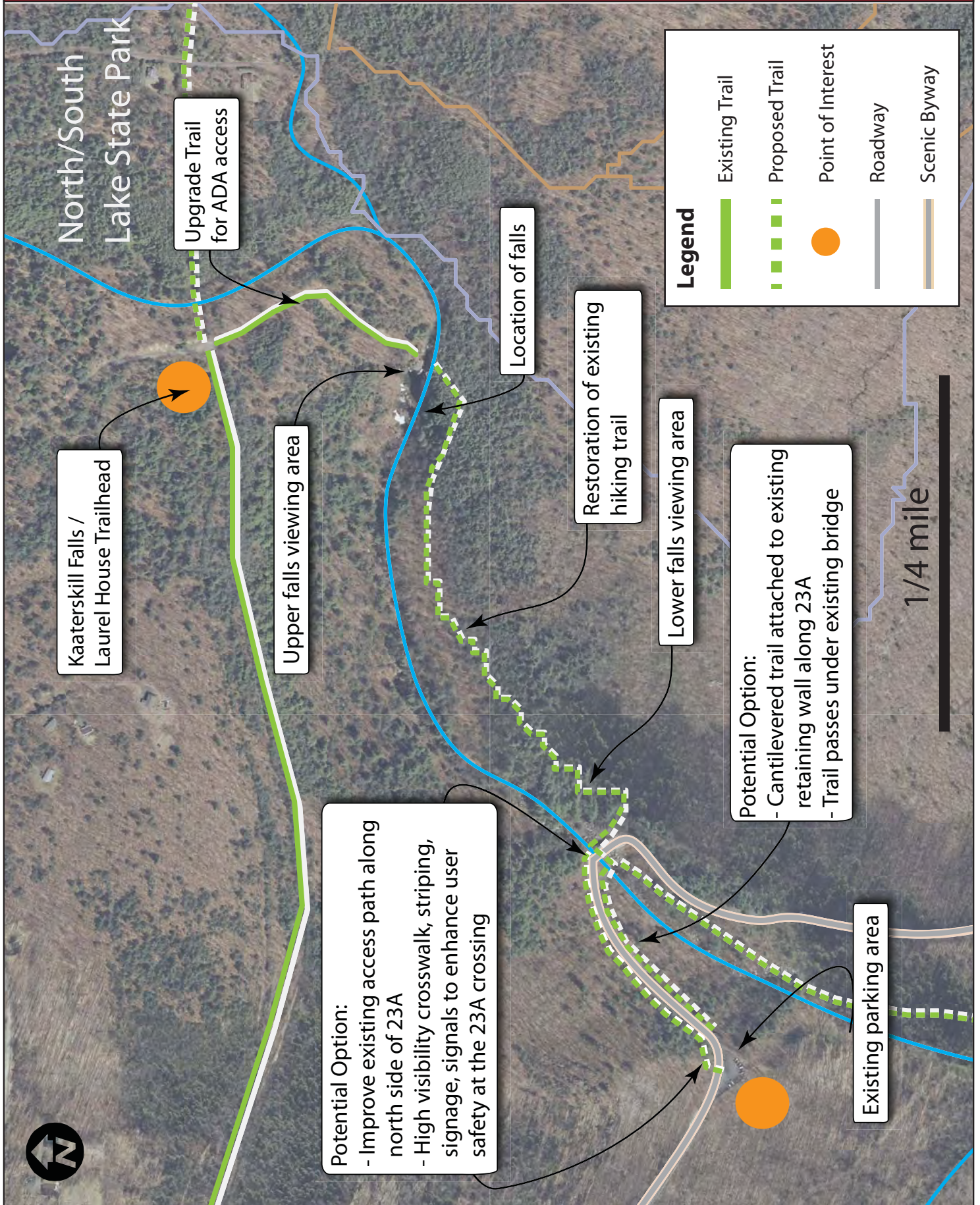
Potential Overlook Location



Existing Roadway Crossing to Lower Falls



# Kaaterskill Falls Safety & Access Study





## Kaaterskill Rail Trail

### Description

Starting at the Mountain Top Historical Society, the Kaaterskill Rail Trail continues along the path of the Ulster & Delaware Railroad toward North-South Lake. The majority of the existing trail is a single path natural surface hiking trail and it is proposed to update it to a 10-foot-wide stone dust trail. The existing rail trail is missing two critical links. An easement for a small portion of the trail, near the Mountain Top Historical Society has yet to be obtained, but a detour to the north along the roadway is currently in place. On the east end, the gap includes a missing railroad trestle to cross a creek. The span is significant in height and length and is currently being undertaken by the NYSDEC. The remaining corridor, the connection to North-South Lake, is intact, graded, with a natural surface; however, it is signed as closed to users.

### Type/Width

10-foot-wide stone dust path

### Length

1.5 miles

### Ownership

Mountain Top Historical Society, NYS Department of Environmental Conservation, Private ownership

### Key Destinations

Mountain Top Historical Society, Haines Falls, Kaaterskill Falls, North-South Lake

### Benefits & Issues

- Provides additional parking and access to Kaaterskill Falls and North-South Lake
- Potential for economic development
- Acquire remaining easement
- Install bridge to provide missing link to North-South Lake

### Potential Permits

- NYSDEC permits and approvals

### Planning Level Cost Estimate

Upgrading KRT: \$300,000

KRT Signage: \$20k

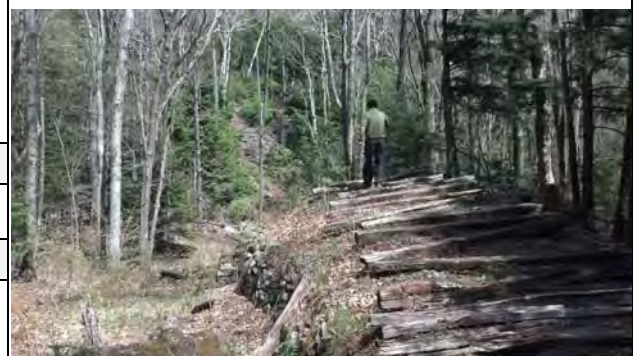
TOTAL: \$320,000



Kaaterskill Rail Trail – West End



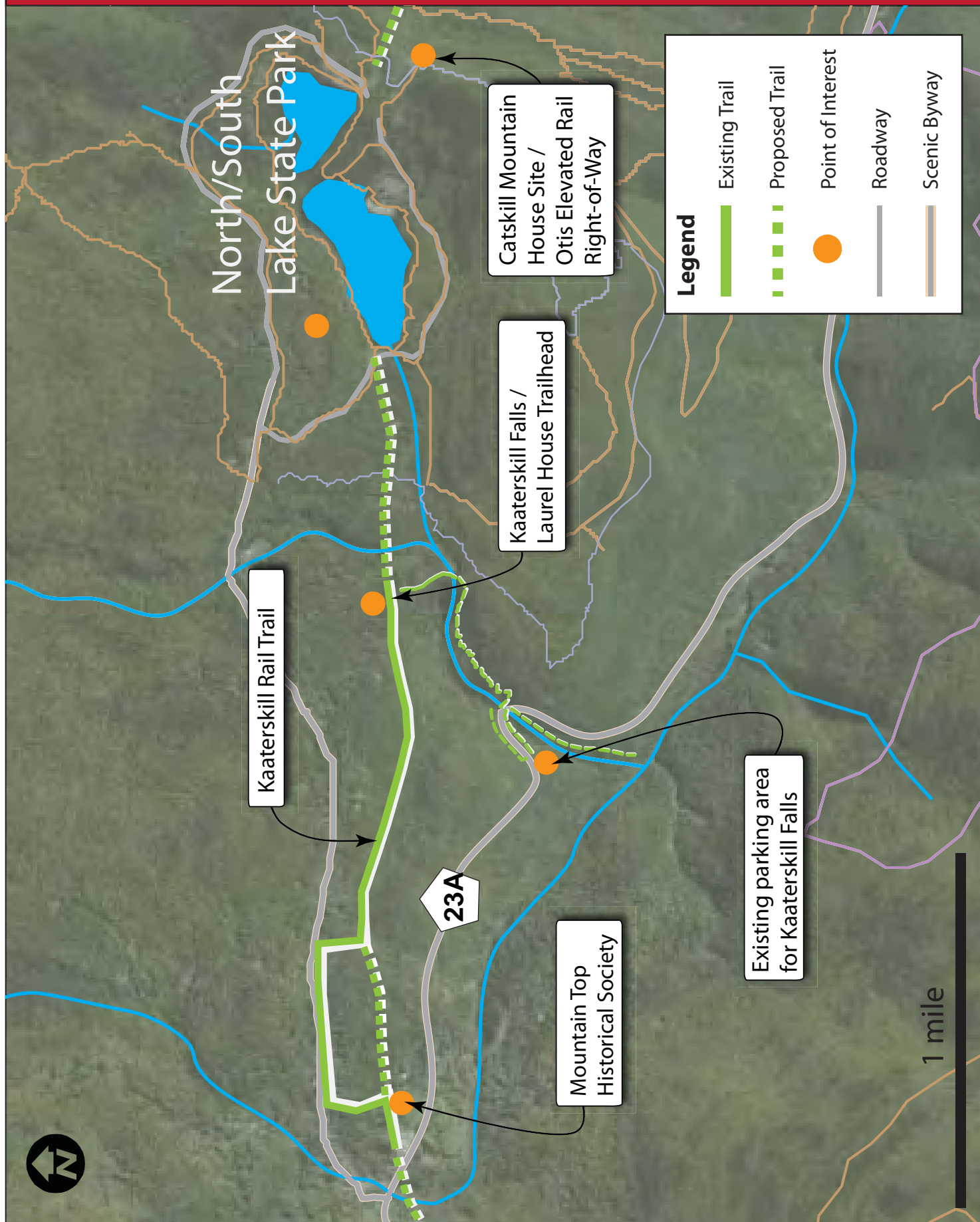
Kaaterskill Rail Trail – East End



Location of Missing Bridge to North-South Lake



# Kaaterskill Rail Trail



## Huckleberry Trail Extension

### Description

A small portion of the Ulster & Delaware railroad corridor, which extends to Dolan Lake in the Town of Hunter, is completed. The shared-use path is paved along the lake and stream, with pedestrian-scaled lighting. A significant portion of this extension to Dolan Lake can remain along the riverfront. The remaining portions can be completed with sidewalks and on-road accommodations to complete the connection to Dolan Lake. To the east, a significant portion of the railroad corridor is no longer intact. Further to the east, as the railroad corridor approaches Tannersville, the Huckleberry Rail Trail starts. The intact railroad bed has been converted into a stone-dust shared-use path, approximately 10 feet wide. The trail starts at Bloomer Road, crossing Spruce Street, and continues past Rip Van Winkle Lake. The trail ends to the east at Clum Hill Road.

Type/Width	Length
10-foot-wide stone dust trail	5 miles of new trail; 7 miles total

### Ownership

NYS Department of Environmental Conservation / private land owners

### Key Land Uses/Destinations

Town of Hunter, Hunter Mountain, Dolan Lake, Huckleberry Rail Trail, Rip Van Winkle Lake, Mountain Top Historical Society

### Benefits & Issues

- Provides access to commercial and recreational destinations
- Several portions of the trail, in Hunter and along Rip Van Winkle Lake, are in place
- Several stream crossings may be required
- Portions of the rail corridor are under private ownership

### Potential Permits

- NYSDEC permits and approvals
- Town of Hunter and Haines Falls approvals

### Planning Level Cost Estimate

Hunter Section (4 miles): \$2,500,000  
Huckleberry-KRT gap (1 mile): \$700,000



Existing Trail in Hunter



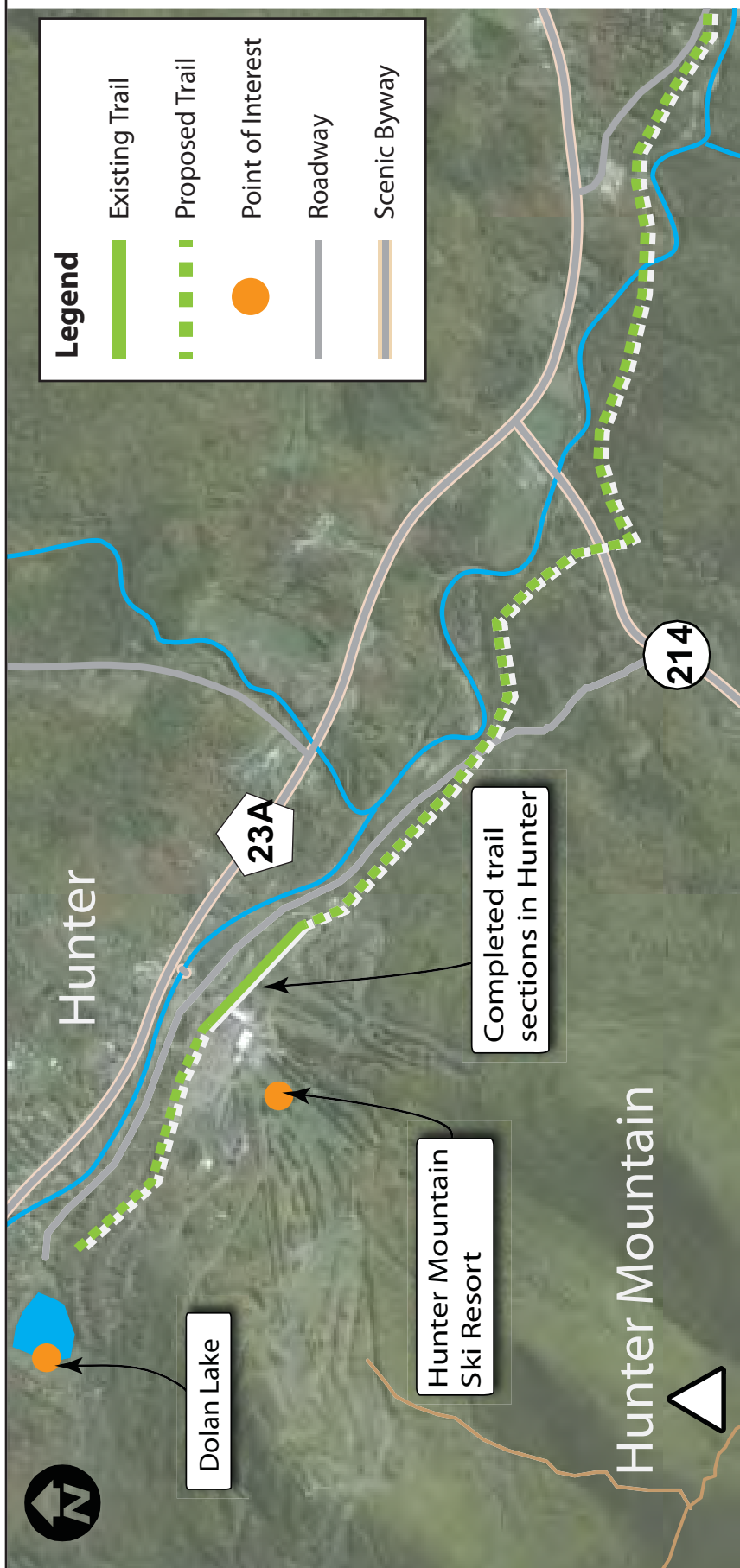
Trail Connection to Hunter and Hunter Mountain



Existing Huckleberry Trail



# Huckleberry Trail Extension



## Windham Path & MTB Ride Center

### Description

The Windham Path is a partially existing and proposed shared-use stone dust trail that would provide connections between some of the mountain towns, including Windham and Maplecrest. This trail provides a recreational opportunity for local residents and enhances the existing and proposed mountain biking trails. When completed, the path will also provide an alternative mode of transportation between these mountain destinations. The Windham Path is critical to connect the existing and proposed mountain biking areas outside of Windham and connecting these to the Town of Windham. There is significant potential for developing a nationally recognized MTB Ride Center by linking and advancing the mountain biking facilities in the immediate area.

### Type/Width

8-foot-wide  
stone dust  
trail

### Length

12 miles of shared-use  
path (does not include  
single track trails)

### Ownership

Town of Windham, NYS Department  
of Environmental Conservation

### Key Land Uses/Destinations

Windham Mountain, East Windham,  
Windham, Mountain Biking Trails,  
Escarpment Trail

### Benefits & Issues

- Economic benefits for Windham Mountain and the Towns of Windham and East Windham
- Tourist attraction on a county level and the possibility of gaining national recognition as one of the few MTB Ride Centers in the country
- Access to and from each mountain bike trail area should be provided by a multi-use trail



Portion of the Windham Path Under Construction



Completed Portion of the Windham Path

### Potential Permits

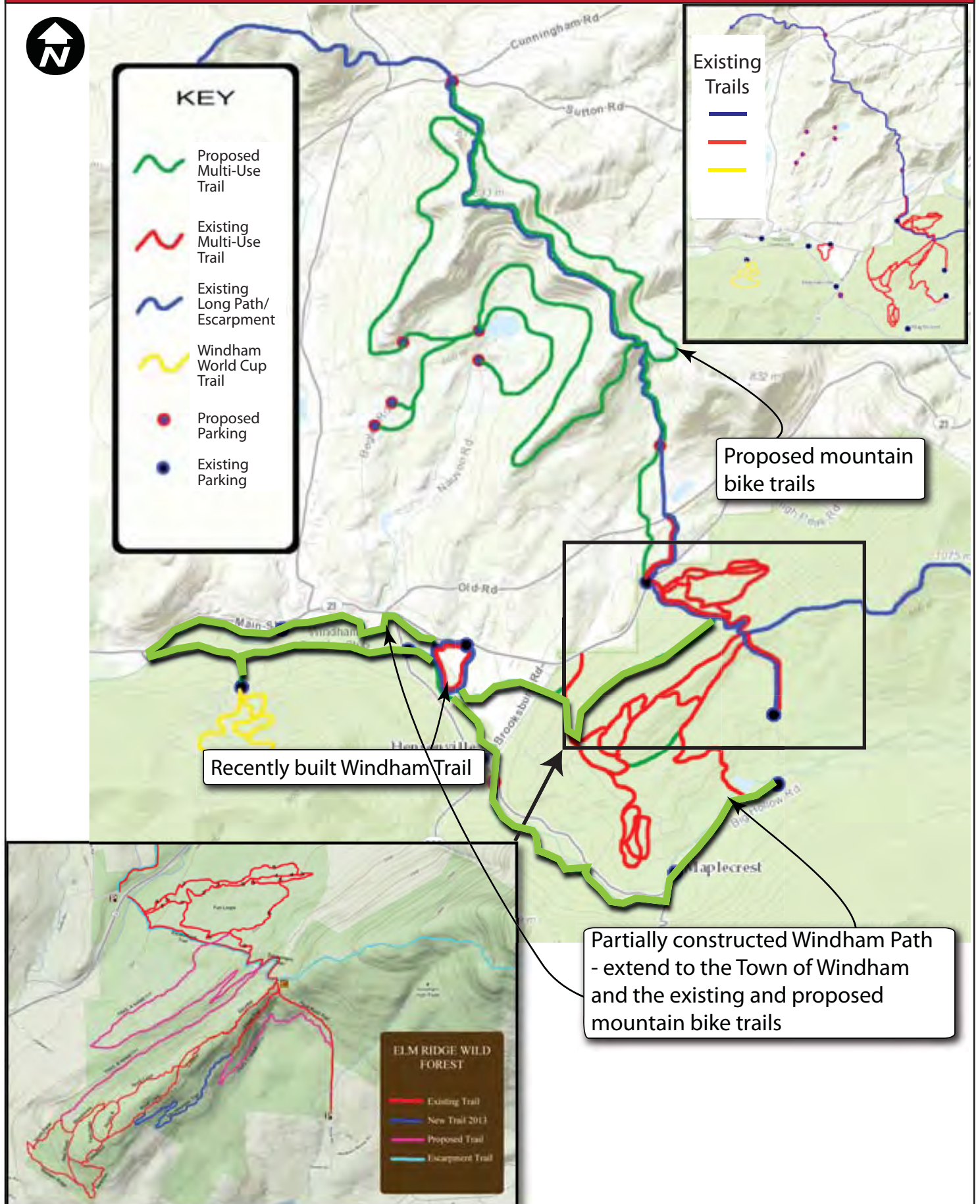
- Town of Windham approvals and permits
- NYSDEC permits and approvals

### Planning Level Cost Estimate

- \$2 million
  - assumes a stone dust surface
  - does not include right-of-way acquisition



# Windham Path & Ride Center





## Round Top Mountain Bike Network

### Description

The Round Top Mountain Bike Network is run by the Round Top Mountain Bike Association. The RTMBA is a not-for-profit organization started by local riders, focused on connecting the local businesses by trail, and creating more MTB trails. This project proposes improvements to public access, wayfinding, and trail conditions for the growing singletrack network in Round Top. This also includes continued outreach and marketing for the existing and proposed trail network. Future consideration should be given to providing a shared-use path, extending to the west, with possibilities to connect to the Windham Path and Windham mountain biking trails.

### Type/Width

4-foot- wide natural surface trails

### Length

20+ miles

### Key Land Uses/Destinations

Round Top Mountain, Town of Round Top, Blackhead Mountain Lodge and Golf Course, Windham mountain bike trails

### Benefits & Issues

- Enhances existing mountain biking trails in Round Top and the surrounding area
- Find public access routes to connect into Round Top and Windham
- Collaboration with Windham and IMBA will enhance the area's vision as a Ride Center

### Potential Permits

- Town of Cairo approvals
- NYSDEC permits and approvals

### Planning Level Cost Estimate

\$300,000 for bridge work, single track trails, and marketing



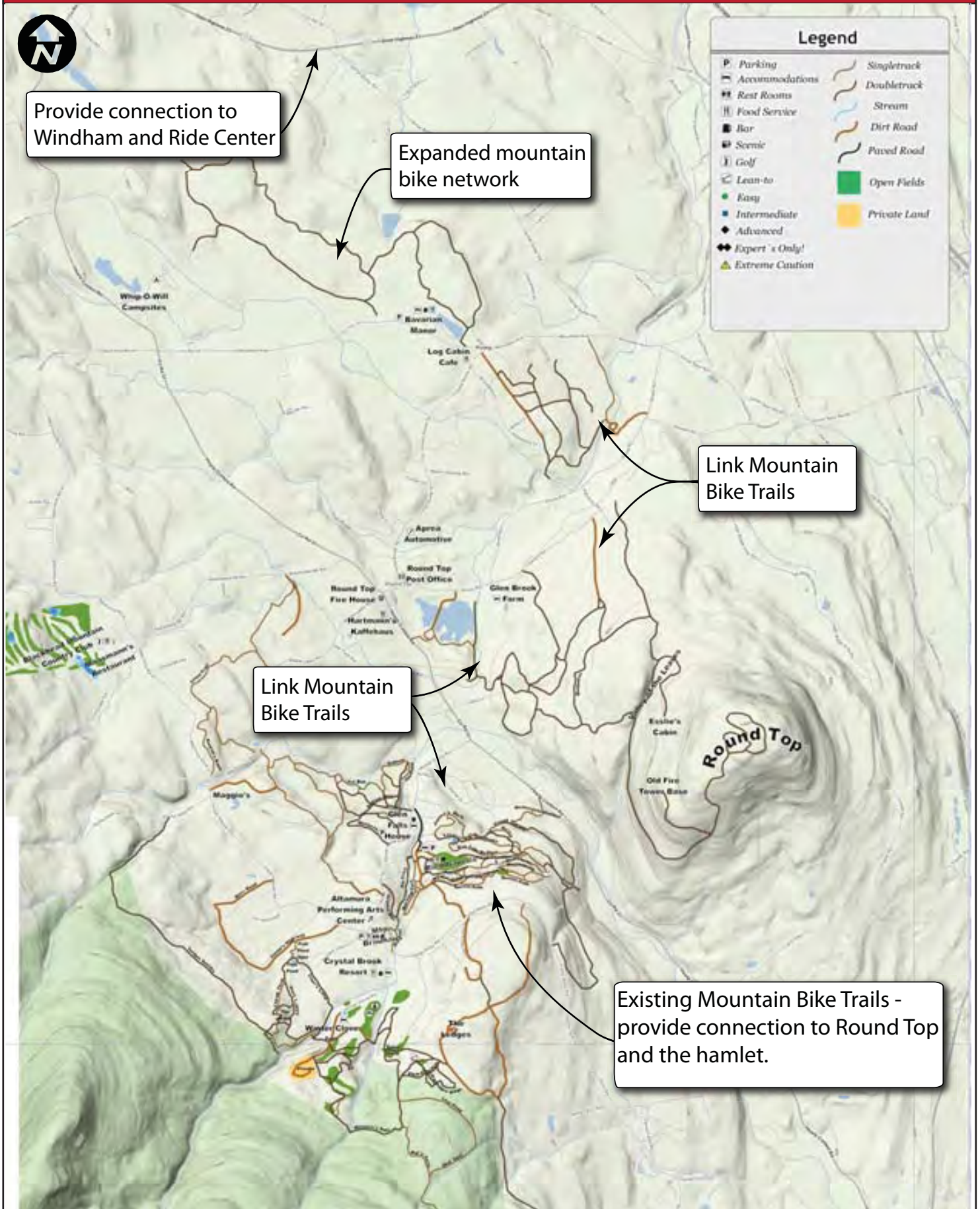
Trails at Round Top



Round Top Mountain Bike Festival



# Round Top Mountain Biking Network



## Catskill Walking Loop & Black Bridge Rehabilitation

### Description

The proposed project will connect the walking loop that is currently being constructed around the Catskill Creek in the Village of Catskill, utilizing the Black Bridge and Bridge Street to cross the creek. Improvements to the Black Bridge include a wider deck or multiple decks to allow for shared recreation uses, pedestrian scale lighting, new decking, and wayfinding signage.

Traditional asphalt, porous asphalt, and stone dust are options for proposed new construction at-grade trail sections located to the southeast of the project area near Bridge Street and the eastern shore.

### Type/Width

Paved surface – 8-foot- wide trail or 5-foot-wide sidewalk

### Length

Approx. 400 ft

### Key Land Uses/Destinations

Catskill Senior High School, Catskill Middle School, Greene County Office Building, Catskill Town Offices, Main Street, waterfront businesses, restaurants, and marinas

### Benefits & Issues

- Increases access to and enhances the Catskill Creek waterfront in the Town of Catskill
- Provides non-motorized transportation connections to Main Street and the businesses located there
- Preserves the Black Bridge

### Potential Permits

- Village of Catskill approval and building permit

### Planning Level Cost Estimate

\$2,000,000 for bridge rehabilitation, new trail sections, and new sidewalks



The Black Bridge



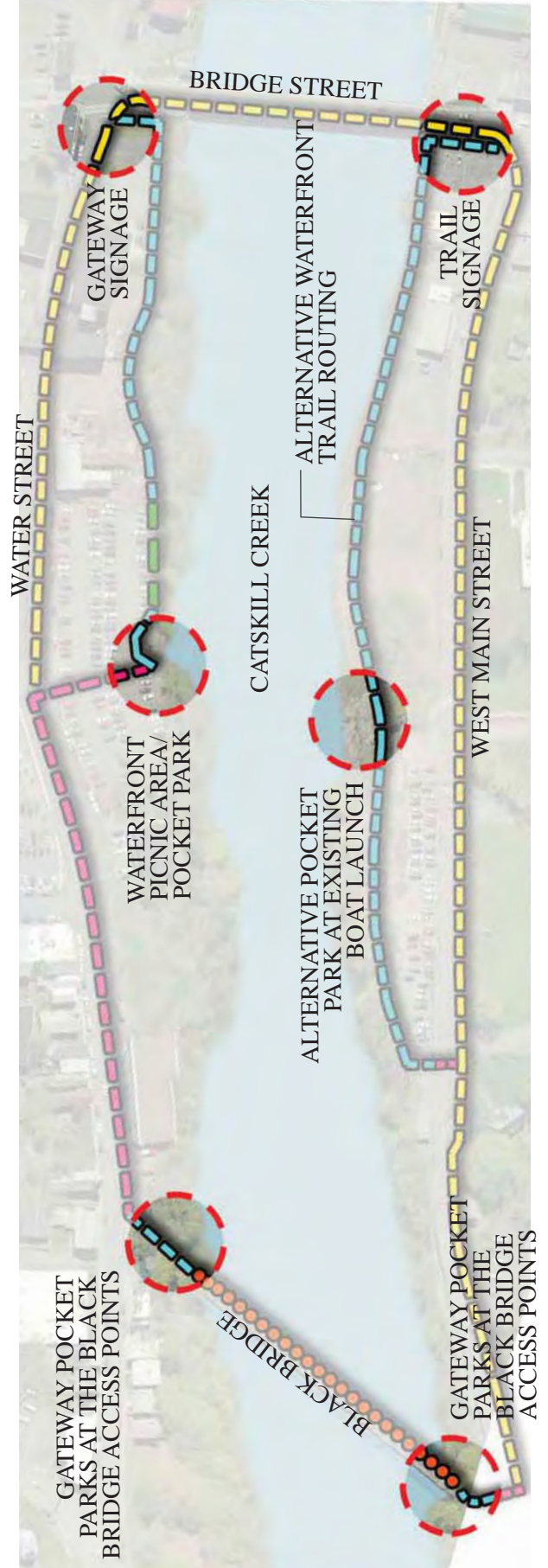
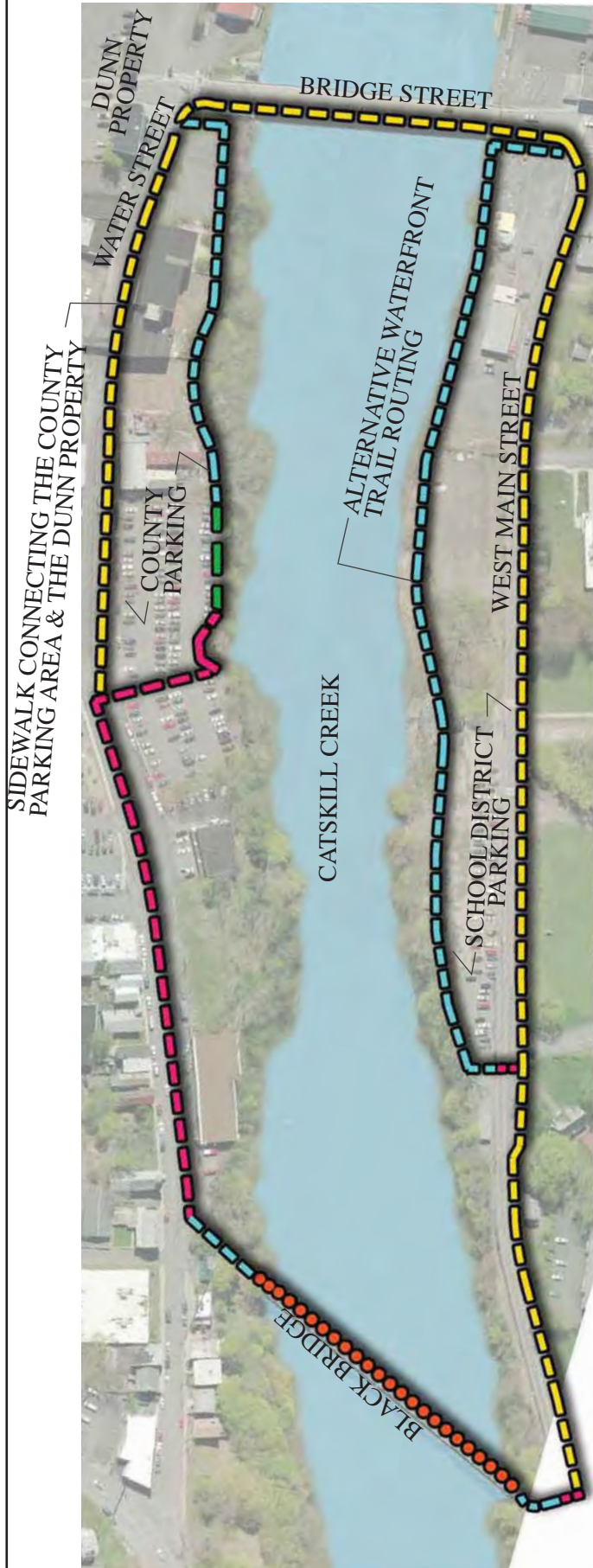
Waterfront Trail Location






Bridge Street



# Catskill Walking Loop & Black Bridge Rehabilitation






Prattsville Riverwalk		
<b>Description</b> <p>The proposed Riverwalk in Prattsville will be a 10 ft wide shared use path, located along the Schoharie Creek, starting at the northern end in Devasego Park. There is little space along the creek just south of the park, so the trail will cross Route 7 at Pratt Cemetery and continue south through the proposed redevelopment site. Just after the bend in Route 23, the trail will cross Main St and continue south adjacent to the Schoharie Creek. A direct connection to Main St will be provided at the Common's. The trail will continue along the creek and will require a pier section along Route 23, across from Pratt Rock. As the shore widens out from Route 23, the Riverwalk will enter the recently reconstructed Conine Field and Park. The Riverwalk will provide public access to the Schoharie Creek and provide a safe, non-motorized connection between several recreational assets. The Riverwalk will also create a buffer between the hamlet and the river that can assist in flooding issues.</p>		
		New Conine Field Pavilion
		
		Site of Riverwalk along the Schoharie Creek
		
		Location of Riverwalk as it exits Conine Field to the North
		<b>Planning Level Cost Estimate</b>
		\$2 million
<b>Type/Width</b> 10 feet, stone dust or paved shared-use path		<b>Length</b> 2 miles
<b>Ownership</b> Town of Prattsville, NYCDEP, NYSDOT, private land owners		
<b>Key Land Uses/Destinations</b> Conine Field and Park, Pratt Rock Park, Schoharie Creek, Common's, Main Street, Devasego Park		
<b>Benefits &amp; Issues</b> <ul style="list-style-type: none"> <li>• Provides access to the Schoharie Creek</li> <li>• Provides a flood zone buffer</li> <li>• Buildings and private land ownership are directly adjacent to the Creek in several locations</li> </ul>		
<b>Potential Permits</b> <ul style="list-style-type: none"> <li>• NYSDEC approval and permits</li> <li>• NYSDEP approval and permits</li> <li>• NYSDOT highway permit</li> <li>• Prattsville approval and permits</li> </ul>		



# Prattsville Riverwalk





Five State Overlook		
<b>Description</b> This project would provide improvements to the existing state-owned parking area with an enhanced viewing area, visitor information and wayfinding at the existing scenic lookout site. Improvements include striping the parking area, development of a trail along the edge of the parking area, an overlook, picnic tables, benches, and landscaping to separate the area from the adjacent highway. The Town of Durham and the Durham Republican Club have cleared some of the vegetation to increase the views and have been working with the NYSDOT toward planned improvements,		
<b>Type/Width</b> Concrete Overlook – 30-foot- wide		<b>Length</b> 100 feet long
<b>Ownership</b> NYS Department of Transportation		
<b>Key Land Uses/Destinations</b> This overlook is located along Route 23 and is a great rest area location for those traveling to and from Windham, NY		<b>Parking area looking west</b>
<b>Benefits &amp; Issues</b> <ul style="list-style-type: none"> <li>Located near the entrance to the Catskill Park and northern gateway to Greene County Mountaintop ski area and resorts.</li> <li>Scenic views</li> </ul>		
<b>Potential Permits</b> <ul style="list-style-type: none"> <li>NYSDOT work permit and approval</li> </ul>		<b>Parking area looking east</b>
<b>Planning Level Cost Estimate</b> \$250,000		



# Five State Lookout



## Top of the Catskills Loop

### Description

This project includes construction of a 30 mile hiking/ snowshoeing trail that will connect the northern and southern ends of the Escarpment Trail in a loop following the peaks of the Catskill Mountains. This will provide a multi-day loop hike within Greene County. This will link several other towns and hamlets to the Escarpment Trail and the Long Trail, such as Prattsville, Windham, and Hunter.

### Type/Width

4-foot- wide natural surface trail

### Length

30+ miles (15 miles of new construction)

### Ownership

NYS Department of Environmental Conservation, Greene County, several townships

### Key Land Uses/Destinations

Catskill mountain peaks, Escarpment Trail, Town of Hunter, Haines Falls, Windham and Windham Mountain

### Benefits & Issues

- Provides a long-distance hiking alternative to the Escarpment Trail
- Allows for a multi-day loop hike around the Catskill Mountains
- Economic benefits to several hamlets and townships by linking long trails for multi-day hikes
- Coordination with NYSDEC and several townships will be required

### Potential Permits

- NYSDEC approval and permits

### Planning Level Cost Estimate

\$150,000

\*does not include land acquisition



Runners on the Escarpment Trail



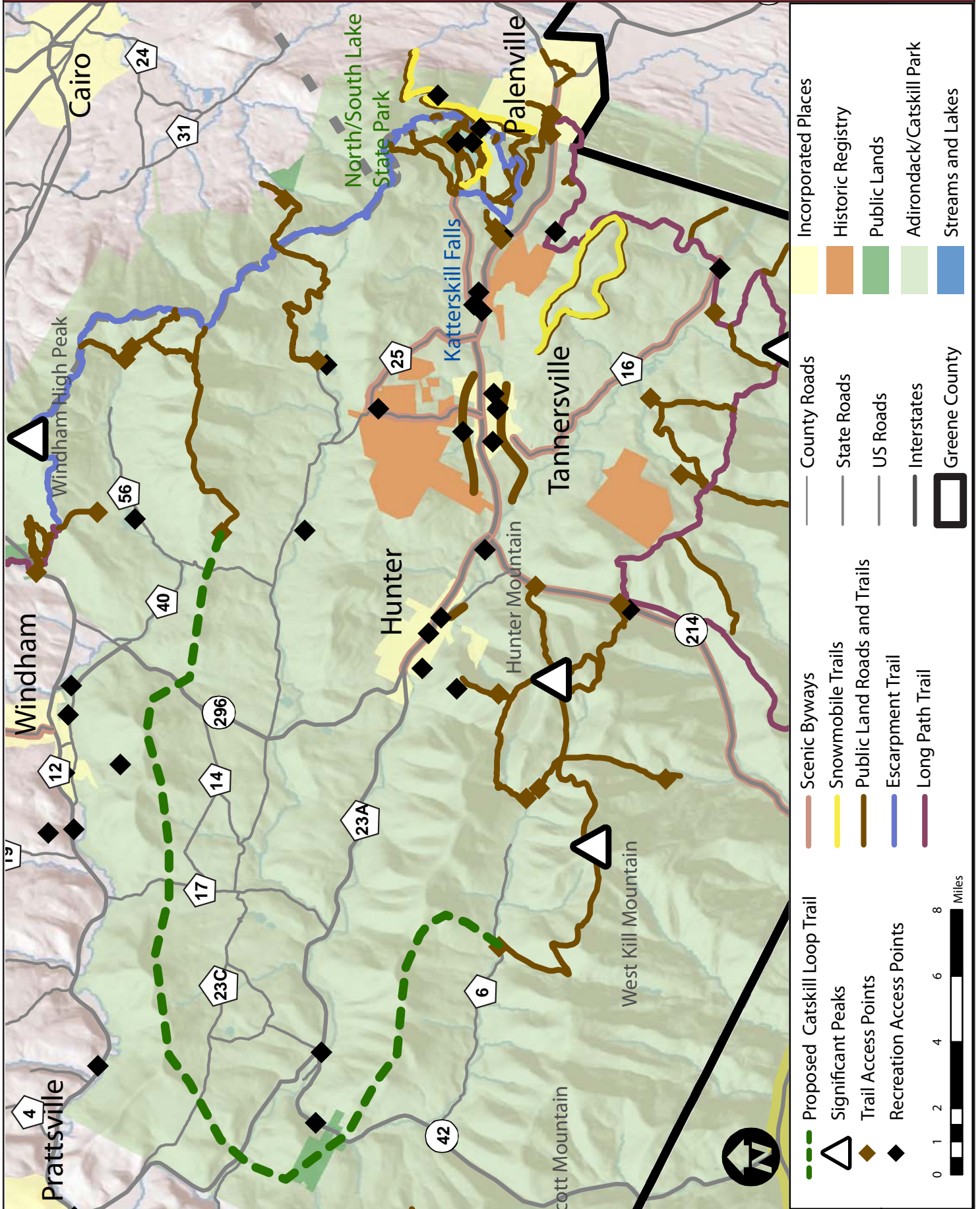
Overlooks from the existing trail system



Views from the Long Path



# Top of the Catskills Loop



## 4 Greeneways and Trails: Demand and Benefits

The proposed county-wide non-motorized transportation network in Greene County is an important investment. Walking, bicycling and trails are gaining new interest from communities across the United States after decades of attention focused on motor vehicle transportation. As fuel prices rise, short trips made by bicycling and walking instead of by car make sense. However, due to low existing levels of use and funding, trail projects often face an uphill battle to prove their utility as viable, efficient modes of transportation. The greatest strengths of building trails – such as creating attractive, livable streetscapes and increasing community health through exercise – are often not accounted for when evaluating transportation projects. Quantifying these factors demonstrates the importance of trails for mobility and helps compare benefits with costs.

The benefits created by non-motorized mobility increases with use. For each additional mile traveled by walking or bicycling instead of driving, about one pound of greenhouse gas emissions are prevented, a few less cents are spent on gas, and a person gets a few minutes closer to reaching their recommended healthy levels of physical activity for the week. When walking and bicycling become part of people's daily activity, these benefits add up to create a healthier, more affordable community. To calculate the current benefits of walking and bicycling transportation in Greene County, the first step is to estimate existing levels of demand using available data. This data is then run through a benefits model. Since the model is primarily based on transportation data, an additional section is provided on the recreational and tourism benefits of trails.

### 4.1 Estimating Walking and Bicycling Demand

The economic value of trails can be quantified in Greene County by using a combination of available data from existing sources. User counts and user surveys are the two most commonly used tools for measuring walking and bicycling activity. The following section describes the strengths and weaknesses of each of these tools, and presents a methodology for estimating the value of these activities for Greene County.

#### 4.1.1 User Counts

User counts, typically conducted at points across the street network during peak travel hours, capture levels of walking and bicycling activity on streets or paths during a short period of time. While user counts can be instructive in comparing relative levels of use between one street and another, they do not fully capture the spectrum of walking and bicycling activity happening across the community over the length of the year. Counts are well suited to studying where people walk and bike, but do not provide answers to other important questions, such as:

- What destinations are people walking and bicycling to, and where are they coming from?
- How far are they traveling?
- What is the purpose of their trip?
- How often do they make similar walking or bicycling trips?
- How often do they make other kinds of walking or bicycling trips?
- Do other residents also make similar types of trips by walking and bicycling, or do they typically travel by another mode?



Therefore, while user counts are a good tool for measuring walking and bicycling at a certain location, user surveys are needed to estimate the overall role of bicycling and walking in the transportation patterns of residents across the region. These counts can be developed in Greene County in the future, and will provide a long-term baseline for before and after evaluations of the trail system.

### 4.1.2 User Surveys

Transportation user surveys often ask respondents about their perceptions – e.g., their feeling of safety on a street – and about their usual travel behavior. Data is available for Greene County from existing user surveys. The American Community Survey (ACS), an ongoing survey conducted by the US Census Bureau, collects social, economic, and demographic information from respondents, and includes a question on respondents' commute to work. Sampling over 250,000 households per month, the ACS is the largest survey that asks Americans about their transportation habits, and the most widely available source of walking and bicycling data in communities. According to the 2007-2011 ACS<sup>1</sup>, about 0.2% of workers in the Greene County focus area bicycle to work, while 2.2% walk to work. These percentages are known as commute mode share; the percentage of a community's population making their journey to work by a certain mode of transportation compared to all modes.

Although commute mode share data is able to capture wider information about walking and bicycling than user counts alone, work commutes are just one type of trip. Greene County residents make many other types of trips (to school, shopping, etc.) by a variety of modes. Detailed household travel surveys can provide more information on travel patterns and help measure the full spectrum of walking and bicycling trips happening in the community.

Household travel surveys are usually conducted by phone and include a travel diary in which respondents are asked to record all their trips during a 24-hour period. Information on the qualities of each trip is collected, including the trip purpose, time of day, duration, length, mode, and more. By collecting this data from a large sample of people across the population, household travel surveys can provide information on where, why, and how far people are walking and bicycling for transportation. Though a recent household travel survey is not available for Greene County, national data from the 2009 National Household Travel Survey (NHTS 2009) can be used to estimate the number of other types of bicycling and walking trips being made in addition to work trips.

### 4.1.3 Estimating Overall Activity

Overall bicycling and walking activity can be estimated by combining available local data such as ACS commute mode share with national trip purpose information from NHTS 2009. On average, 1.6 utilitarian bicycle trips are made for every bicycle-to-work trip in the United States, and 4.3 utilitarian walk trips are made for every walk-to-work trip (Figure 12 and Figure 13 below). A utilitarian trip is one that serves a purpose, as opposed to for recreation or exercise.

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<sup>1</sup> For communities of Greene County's size, the Census Bureau recommends using 5-Year sample data sets for increased reliability. This report references 2007-2011 5-Year ACS data.



Figure 12. Ratio of Bicycle-To-Work Trips to Utilitarian Bicycle Trips (Source: NHTS 2009)



Figure 13. Ratio of Walk-To-Work Trips to Utilitarian Walk Trips (Source: NHTS 2009)

Student commute trips to school are estimated independently of ACS data, because the populations making those trips are substantially different from the employed workforce surveyed by ACS. National baseline K-8 school trip data from Safe Routes to School (SRTS) is used to estimate mode share for K-12 school trips.

For each type of trip, average trip distance and vehicle trip replacement multipliers are applied to estimate the total distance traveled by walking and bicycling and resulting vehicle miles traveled (VMT) reduced. National average trip distance multipliers are sourced from NHTS and SRTS, ranging from 0.36 miles for the K-12 walk to school to 3.54 miles per adult bike commute trip. Vehicle trip replacement multipliers assume that for each walking or bicycling trip, the chance of walking or bicycling replacing another mode



for that trip is equal to the mode share of that other mode. Vehicle trip replacement multipliers are calculated independently using the mode split for each trip purpose available. For example, commute trip mode split is used for commute vehicle trip replacement, and college trip mode split is used for college vehicle trip replacement. Single-occupancy vehicle trip equivalents are used to estimate VMT reduction; replaced carpool trips are weighted at 50% of a replaced single-occupancy vehicle trips.

Figure 14 provides a visual depiction of the steps used to translate local and national transportation data into an annual estimate of bicycling and walking activity currently happening in Greene County.

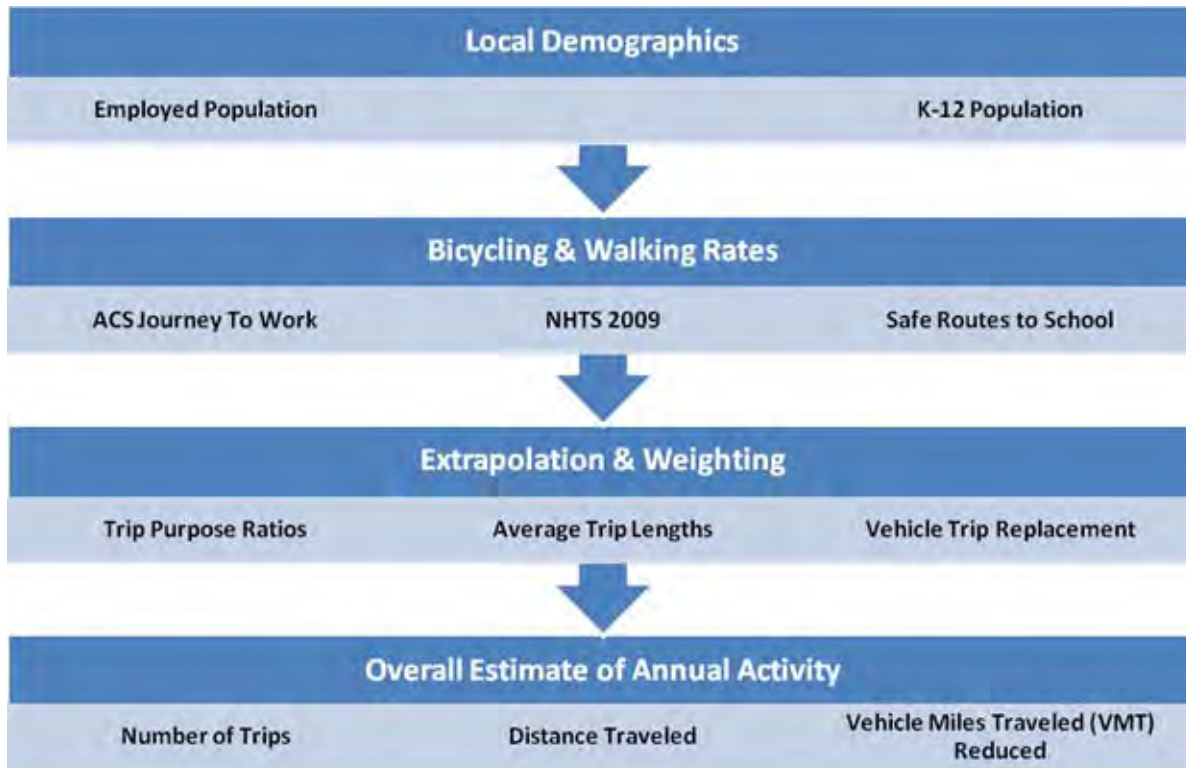


Figure 14. Greene County Existing Walking and Bicycling Overall Activity Estimate Methodology

#### 4.1.4 Key Findings Related to Existing Demand

Using ACS, NHTS, and Safe Routes to School data sources in the methodology described above, every year approximately 800,000 miles of trips in Greene County that could be made by car are instead being made by bicycling and walking.

## 4.2 Estimating Bicycling and Walking Benefits

Benefits of bicycling and walking are based on the number of regular walk/bicycle transportation users and miles traveled. Numerous studies have estimated the dollar value of the benefits of bicycling and walking such as reduced pollution from the reduction of vehicle travel, improved health from increased physical activity, and other benefits (see Table 2). Using figures from these studies, overall levels of bicycling and walking transportation activity can be expressed in terms of their dollar value to local residents and the community at large.

Table 1. Bicycling and Walking Demand Estimation and VMT References.

REFERENCES - DEMAND/ACTIVITY MULTIPLIERS																							
TRIP PURPOSE EXTRAPOLATION																							
Commute Trip Mode Share				K-12 Trip Mode Share				Utilitarian Trip Multiplier															
Bike:		0.2%		Walk:		2.2%		Bike:		1.0%		Walk:		13.4%		Bike:		1.6		Walk:		4.3	
ACS 2007-11						SRTS Baseline, 2009						NHTS 2009											
ANNUAL TRIP EXTRAPOLATION																							
Annual Work Days				Annual K-12 School Days																			
251				180																			
261 weekdays - 10 federal holidays						ECS, New York State Min.																	
ANNUAL VEHICLE TRIPS REPLACED (SOV EQUIVALENT)																							
Commute Vehicle Trip Replacement				K-12 Vehicle Trip Replacement																			
Bike:		84.9%		Walk:		86.6%		Bike:		42.6%		Walk:		48.7%									
ACS 2007-11						SRTS Baseline, 2009																	
ANNUAL VEHICLE MILES TRAVELED REDUCED																							
Commute Trip Distance				K-12 Trip Distance				Utilitarian Trip Distance															
Bike:		3.54		Walk:		0.67		Bike:		0.77		Walk:		0.36		Bike:		1.89		Walk:		0.67	
NHTS 2009						SRTS Baseline, 2009						NHTS 2009											

Table 2. Bicycling and Walking Transportation Benefits References.

REFERENCES - BENEFITS MULTIPLIERS					
Reduced Emissions	Lb/VMT	Reduced Emissions Costs	\$/ton	Reduced Externalities	\$/VMT
Hydrocarbons	0.00300	Volatile Organic Compounds	\$1,700	Traffic Congestion	\$0.05
Particulate Matter	0.00002	Particulate Matter	\$168,000	Vehicle Crashes	\$0.36
Nitrous Oxides	0.00209	Nitrous Oxides	\$4,000	<i>AAA, 2008</i>	
Carbon Monoxide	0.02734	Carbon Monoxide	n/a		
Carbon Dioxide	0.81351	Carbon Dioxide	\$36.03	Road Maintenance Costs	\$0.15
<i>EPA, 2007</i>		<i>EPA, 2007</i>		<i>Kitamura, Zhao &amp; Gubby, 1989</i>	
Physically Inactivity Rate	%	Reduced Healthcare Costs	\$/Year	Vehicle Operating Costs	\$/VMT
New York	26.1%	Savings/Newly Active Person	\$585.97	Operational Std. Mileage Rate	\$0.57
<i>2010 BRFSS (CDC)</i>		<i>Wang, McDonald et al, 2012</i>		<i>IRS, 2013</i>	

#### 4.2.1 Key Findings Related to Existing Benefits

Although current levels of walking and bicycling in Greene County are roughly similar to national averages, local use of active transportation returns significant benefits to the community in the form of improved air quality, reduced transportation costs, and improved health. Frequently, most people do not recognize these factors in their daily routines. Using the VMT reduction estimated in the previous section, and the multipliers described in Table 1 and Table 2, existing rates of bicycling and walking transportation are estimated to generate over \$1 million in annual benefits for Greene County.



Table 3. Estimated Annual Benefits of Walking and Bicycling Transportation

GREENE COUNTY ANNUAL WALKING AND BICYCLING BENEFITS	
Annual VMT Reduced	829,000
<b>Air Quality</b>	
CO2 Emissions Reduced (pounds)	675,000
Other Vehicle Emissions Reduced (pounds)	27,000
Total Vehicle Emissions Costs Reduced	\$19,000
<b>Social Benefits</b>	
Reduced Traffic Congestion Costs	\$41,000
Reduced Vehicle Crash Costs	\$299,000
Reduced Road Maintenance Costs	\$124,000
<b>Individual Benefits</b>	
Household Vehicle Operation Cost Savings	\$469,000
Health Care Cost Savings from Physical Activity	\$72,000
<b>Total Monetized Benefits:</b>	<b>\$1,024,000</b>

## 4.2.2 Potential Future Benefits

Estimating current walking and bicycling benefits in Greene County shows that active transportation is a boon to the health and economy of the region. Future growth in local bicycling and walking rates would generate economic, environmental and health benefits greater than the current estimate of \$1 million in annual benefits to the region. Table 4 provides monetized annual estimates of the benefits of bicycling at two example rates. Table 5 explores the potential annual benefits of increased walking rates.

Table 4. Potential Annual Benefits of Increased Bicycling in Greene County

GREENE COUNTY POTENTIAL ANNUAL BICYCLING BENEFITS			
	Current	Medium Goal: 10% Increase	High Goal: 25% Increase
<b>Bicycle Commute Mode Share</b>	<b>0.17%</b>	<b>0.19%</b>	<b>0.21%</b>
Annual VMT Reduced	103,000	110,000	130,000
<b>Air Quality</b>			
CO2 Emissions Reduced (pounds)	84,000	90,000	110,000
Other Vehicle Emissions Reduced (pounds)	3,000	3,200	3,900
Total Vehicle Emissions Costs Reduced	\$2,000	\$2,100	\$2,600
<b>Social Benefits</b>			
Reduced Traffic Congestion Costs	\$5,000	\$10,000	\$10,000
Reduced Vehicle Crash Costs	\$37,000	\$40,000	\$50,000
Reduced Road Maintenance Costs	\$16,000	\$20,000	\$20,000
<b>Individual Benefits</b>			
Household Vehicle Operation Cost Savings	\$58,000	\$60,000	\$70,000
Health Care Cost Savings from Physical Activity	\$5,000	\$10,000	\$10,000
<b>Total Benefits:</b>	<b>\$124,000</b>	<b>\$142,000</b>	<b>\$162,000</b>

Note: Estimates reflect conceptual benefits that would be generated at given mode shares as if they existed in Greene County today. Values are not discounted and do not reflect future demographic growth, cost changes or other multiplier changes.

Table 5. Potential Annual Benefits of Increased Walking in Greene County

GREENE COUNTY POTENTIAL ANNUAL WALKING BENEFITS			
	Current	Medium Goal: 10% Increase	High Goal: 25% Increase
<b>Walk Commute Mode Share</b>	<b>2.2%</b>	<b>2.40%</b>	<b>2.72%</b>
Annual VMT Reduced	726,000	800,000	910,000
<b>Air Quality</b>			
CO2 Emissions Reduced (pounds)	591,000	650,000	740,000
Other Vehicle Emissions Reduced (pounds)	24,000	30,000	30,000
Total Vehicle Emissions Costs Reduced	\$17,000	\$20,000	\$20,000
<b>Social Benefits</b>			
Reduced Traffic Congestion Costs	\$36,000	\$40,000	\$50,000
Reduced Vehicle Crash Costs	\$261,000	\$290,000	\$330,000
Reduced Road Maintenance Costs	\$109,000	\$120,000	\$140,000
<b>Individual Benefits</b>			
Household Vehicle Operation Cost Savings	\$410,000	\$450,000	\$510,000
Health Care Cost Savings from Physical Activity	\$66,000	\$70,000	\$80,000
<b>Total Benefits:</b>	<b>\$900,000</b>	<b>\$990,000</b>	<b>\$1,130,000</b>

*Note: Estimates reflect conceptual benefits that would be generated at given mode shares as if they existed in Greene County today.*

*Values are not discounted and do not reflect future demographic growth, cost changes or other multiplier changes.*

The potential benefits of increased walking and bicycling rates in Greene County make a strong case for increased investment in active transportation infrastructure. For example, if walking and bicycling activity were to increase by 25%, the community could enjoy additional health, environmental and economic benefits valued at approximately \$250,000 per year. By stimulating increased use, the new bicycling and walking facilities proposed in this plan could become valuable assets that improve the health, affordability, and livability of Greene County.

### 4.3 Tourism and Economic Benefits of Trails

In addition to transportation, health, and environmental benefits, trails and recreational uses will attract tourism and create jobs in Greene County. The County already has a strong focus on tourism with investments in hiking, mountain biking, and skiing assets – Hunter and Windham currently have approximately 500,000 skier visits per year. As the trails proposed in this plan develop, new activities including mountain biking, water trails, in-town trails and improved hiking facilities will expand these economic opportunities. Continuing to promote the county's natural resources to a variety of users will bring in additional tourists and revenue. According to the 2007 Greene County Economic Development Plan ([http://greenebusiness.com/files/docs/ChapterTen\\_TourismIndustryAnalysis.pdf](http://greenebusiness.com/files/docs/ChapterTen_TourismIndustryAnalysis.pdf)), there are approximately 75,000-80,000 overnight visitors staying at lodging facilities per year, and the number of day trips could easily equal or exceed that figure. The County estimates that over one million tourists visit each year, and many of its hiking and mountain biking assets are used by day trippers and people attending events such as the Windham Warrior Dash and Windham UCI World Cup mountain bike races. Greenways and trails can provide an additional reason for visitors to “stay another day” and create new economic development opportunities, as well as providing unique recreational opportunities that cannot be replicated elsewhere.



Local Greene County trail users provide economic benefits as described above; additional tourists visiting from outside the county spend even more on hotel rooms, food, and goods. The county's position along the Long Path provides a unique opportunity to provide refuge and goods for long-distance hikers, as well as a marketing opportunity due to the well-known status of the Long Path. Since much of Greene County's tourism is oriented towards downhill skiing in the winter and hiking in the summer, increasing the diversity of trail options is consistent with the Economic Development Plan. Windham Mountain's visitor numbers are predicted to increase with the completion of the mountain bike park and supporting infrastructure.

Rail-trails, hiking trails, bikeways and other trail improvements will enhance Greene County's ability to market trail oriented tourism in all four seasons. The recent completion of the Mountain Cloves Scenic Byway and Kaateskill Rail Trail are natural complements and enhancements for the County's outdoor recreation infrastructure and marketing efforts. The County also has been working to create the Kaaterskill Clove, the site of many famous Hudson River School paintings, as an enhanced tourist attraction that has a hiking and trail aspect.

The catalytic projects identified in this plan support local economic development through increases in lodging rates, improved second home values, special events on trails and the potential to diversify the county's tourism market. Each project has the unique potential to support economic development at the local level and as part of the County's overall strategy. With an investment over a the next decade of \$5 to 10 million dollars, the benefits analysis indicates that approximately \$1 million per year will be generated in mobility, health and environmental benefits. New jobs building and maintaining trails, in retail and lodging businesses, improved property values and the retention and attraction of business to the County will add to these values. The following examples illustrate the potential for trails to support tourism and economic development:

In Northwest Arkansas, the Razorback Greenway has led to significant new investments, including a \$30 million dollar housing project built along the trail by the University of Arkansas, a new hotel in Bentonville, new mountain bike parks, two cafes, a new bikes shop and other investments.

Fruita, Colorado, for example, has earned a reputation as a world-class mountain biking destination that pumps \$1.5 million a year into the local economy, according to the Bureau of Land Management. And Fruita's sales tax revenues have increased by 51% in the last five years, including an 80% increase in sales tax revenues from restaurants. (Outdoor Industry Foundation, from Bureau of Land Management North Fruita Desert Management Plan, 2004)

Whistler Mountain Bike Park is based in the British Columbia ski resort using ski lifts, ski runs, and other infrastructure to attract mountain bikers in the summer months. The study concluded that total visitor spending in Whistler attributable to mountain biking exceeded \$34.3 million over the period June 4 to September 17, 2006, supporting an estimated \$39.1 million in new economic activity (GDP). (Sea to Sky Mountain Biking Economic Impact Study, Western Canada Mountain Bike Tourism Association)

The Walkway Over the Hudson State Park in Poughkeepsie released an updated economic impact study in February, 2012. The Walkway, which uses a bridge and views very similar to those possessed by Greene County drew 750,000 visitors in 2012. The study found that almost 50% of visitors came from outside of the adjacent counties, resulting in over \$24 million in revenue between Dutchess and Ulster Counties,

and \$780,000 in sales and hotel taxes. This revenue comes from direct spending (food, travel, and hotels), jobs, and wages. Since approximately 28% of visitors are from outside of New York State, additional state revenue is generated each year beyond the local benefits.

Additional Resources on the Economic Benefits of Trails:

Economic Impacts of Trails and Greenways

[www.americantrails.org/resources/economics/index.html](http://www.americantrails.org/resources/economics/index.html)Share

Benefits | Studies | Business | Tourism | Valuing Trails ... Heritage Rail Trail County Park User Survey and Economic Impact Analysis

Economic Impact of Recreational Trail Use - Tourism Center

[http://www.tourism.umn.edu/prod/groups/cfans/@pub/@cfans/@tourism/documents/asset/cfans\\_asset\\_167538.pdf](http://www.tourism.umn.edu/prod/groups/cfans/@pub/@cfans/@tourism/documents/asset/cfans_asset_167538.pdf)

Analysis of regions of origin and destination, and trail user spending on trips and equipment.

Greenways & Trails - Parks & Trails New York

[http://www.ptny.org/pdfs/greenways/publications/economic\\_benefits.pdf](http://www.ptny.org/pdfs/greenways/publications/economic_benefits.pdf)

Tourists, encourage new trail-related business development, economic and other benefits of greenways and community trails.



## 5 Signage and Wayfinding

The development of this plan presents Greene County with an opportunity to unify the trails system, the county's Great Northern Catskills “Awaken to Adventure” tourism brand, and a consistent signage and wayfinding system. Signage will need to be coordinated with NYSDOT, NYSDEC and local communities, and can be designed around a system that can be customized at the local level for individual projects. Signage will need to comply with the NYS Manual of Uniform Traffic Control Devices (MUTCD) and Catskill Park guidelines. Quick Response (QR) codes can be included in sign elements to provide links for information on mobile devices. The following graphic illustrates a concept for a Greene County signage and wayfinding system.

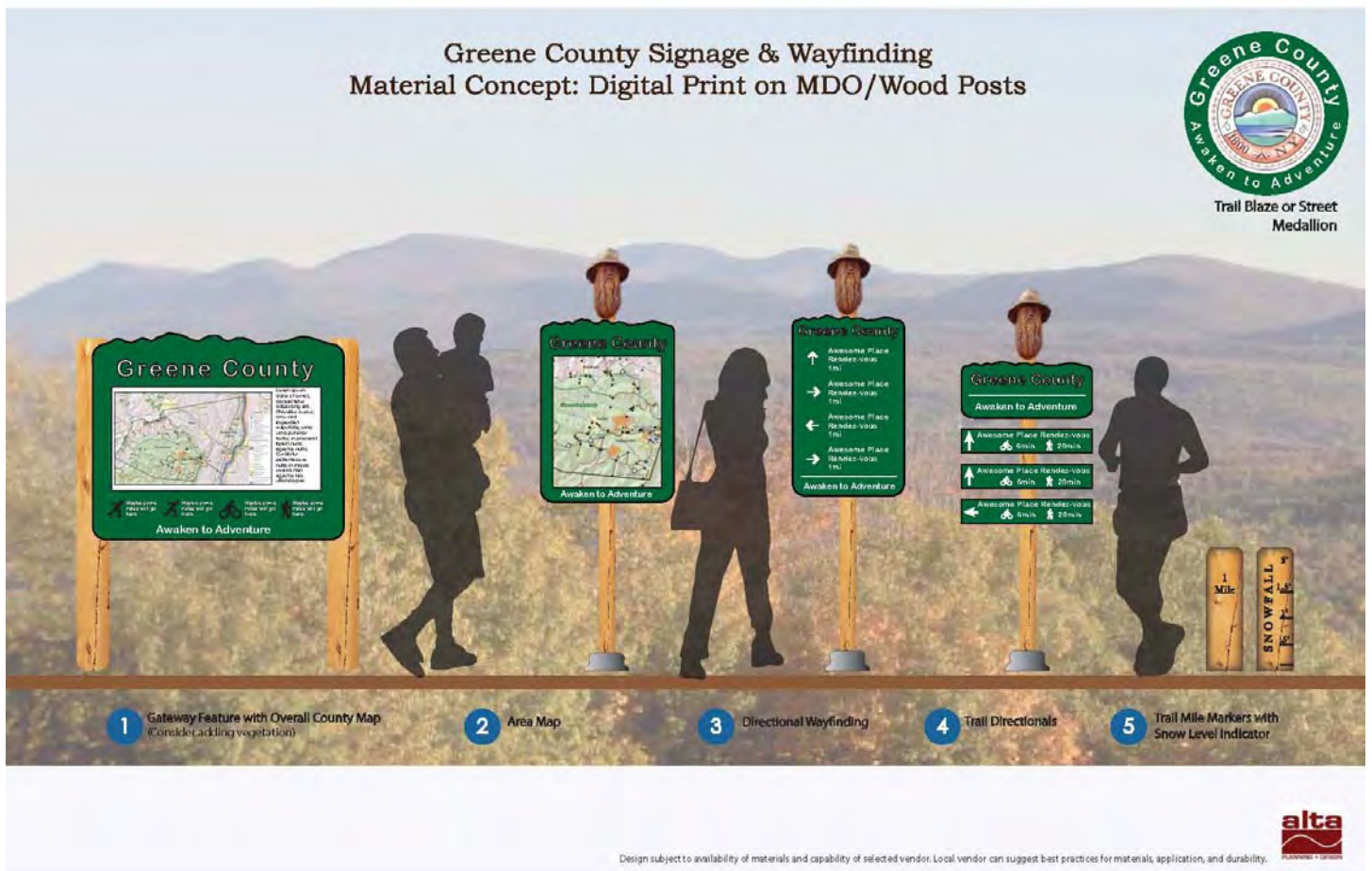


Figure 14 – County Wayfinding System

## 6 Implementation Matrix

Greene County can implement the projects and programs recommended in this plan through a combination of integration into ongoing capital projects and through multiple funding sources for stand-alone projects. Several of the catalyst projects will be eligible for transportation funding. With local communities, state agencies, private sector and non-profit partners, there is significant potential for the trails system to become a major element of the county's Awaken to Adventure brand. The following matrix indicates a range of potential partners and funding sources for project implementation.

Catalytic Projects	Potential Project Partners	Potential Funding
<b>Kaaterskill Clove Trails</b>		
Palenville Hamlet Plan	Hamlet of Palenville, Town of Catskill, Greene County Department of Economic Development, Tourism and Planning, SUNY Albany Design Studio	NY Community Rising - CDBG-Disaster Relief, SUNY Albany (pro bono)
Mountain Top Historic Society (MTHS)	Greene County Department of Economic Development, Tourism and Planning, Greene County Soil and Water Conservation District, Village of Tannersville, Hamlet of Palenville, Hamlet of Haines Falls, Kaaterskill Rail Trail, North-South Lake State Park	NYS DOS Local Waterfront Revitalization Plan, Empire State Development Corporation Grant Funds
Kaaterskill Falls Safety & Access Study	NYS DOT, NYS DEC, North-South Lake State Park	NYS Department of State Local Waterfront Revitalization Program
Complete the KRT Rail Trails	NYS DEC Catskill Park forest preserve trail system, Mountain Clove Scenic Byway, Hudson River School Art Trail, Greene County Soil and Water Conservation District, NY-NJ Trail Commission, North-South Lake State Park	NYS Office of Parks Recreation & Historic Preservation (OPRHP) - Recreational Trails Program, NYS OPRHS - Environmental Protection Fund, Recreational Equipment, Inc. (REI) Recreation and Conservation Grants, Land and Water Conservation Fund
<b>Mountain Bike "Ride Center"</b>		
Windham Shared-Use Path	Town of Windham, Windham Mountain, IMBA, local businesses, NYS DEC	MAP-21 Transportation Alternatives (NYS DOT), NYS Healthy Trails, Healthy Communities (PTNY / NYSDOH), Bikes Belong Foundation Grants
Round Top MTB Network	Round Top Mountain Bike Association, IMBA, local businesses, NYS DEC	Bikes Belong Foundation Grants, MAP-21 Recreational Trails Fund (NYS OPRHP), AmeriCorps, Boy/Girl Scouts, volunteer programs



Catalytic Projects	Potential Project Partners	Potential Funding
Town Center Connections		
Village of Catskill Walking Loop	Town and Village of Catskill, Mainly Greene, Thomas Cole National Historic Site, the Chamber of Commerce of Great Northern Catskills	Consolidated Funding Application - LWRP, NYSDOS Brownfield Opportunity Areas (BOA) Program
Prattsville Riverwalk	NYSDOT, Scenic Byway Committee - Mountain Clove Scenic Byway, Greene County DPW, the Prattsville Museum/Historic Society, Thruway Authority	NY Community Rising - CDBG-Disaster Relief
Scenic Vistas		
Five State Overlook	Town of Durham, Durham Republican Club, Greene County, NYSDOT	NYS Department of Transportation, Market NY
Natural Trails		
Top of the Catskills Loop	Greene County, NYSDEC, Hunter Mountain, Palenville, Hunter and Windham	NYS Office of Parks Recreation & Historic Preservation (OPRHP) - Recreational Trails Program, NYS OPRHS - Environmental Protection Fund, Recreational Equipment, Inc. (REI) Recreation and Conservation Grants, Land and Water Conservation Fund

## 6.1 Greene County – Next Steps

This plan includes proposed projects that will help make Greene County a premier tourism destination. The County's heritage provides a unique foundation for defining trails and recreation as a central part of Greene County's image. Implementing this plan will depend upon ongoing collaborations between public, private and non-profit partners. Each of the catalyst projects has significant potential, and in addition, key agencies can support non-motorized travel through policy actions. For example, the Local, County, and State Highway Departments can improve roadway shoulders, and this will help pedestrians, bicyclists and others safely access key destinations. To advance the Greene County trails initiative towards completion, the following implementation steps are recommended:

**Concept Plan Adoption:** The Greene County Legislature can adopt a resolution in support of the plan. This will allow for public support of the catalyst projects and help continue the momentum created by the development of the plan.

**County "Greeneways" Council:** Establish an advisory council including County elected officials, state agencies and staff to support ongoing trail projects and initiatives in Greene County. This council can serve as a conduit for information, collaboration and funding opportunities.

**Friends of Greene County Trails:** Establish, either as a project of an existing non-profit or as a new organization, a 'friends' organization to develop partnerships, visibility, and resources for implementation of trail projects and programs. This organization can facilitate communications among the growing local trail organizations in the County.

**New Trails Partners:** Traditionally, trails have been built by volunteer trail organizations and public land managers. Greene County has opportunities to engage new partners including the regional arts community, scouting programs, community service organizations and others to expand the County's trail network.

**Promote Trails through Greene County Tourism:** Capitalize on the potential of trails by including links to the projects identified in the plan on Greene County's "Great Northern Catskills" tourism website. This will provide an opportunity to collaborate with local trail projects as they develop to share promotional resources, itineraries, and materials.

**Integration into Capital Projects:** Where possible, elements of the trails network can be implemented through inclusion in ongoing capital projects. This process can involve planning board site plan reviews, traffic/environmental impact mitigation, inclusion in public works projects, and collaboration with developers and state agencies to build sections, provide trailheads, or secure alignments for future improvements.



Figure 15: Paved Shoulder



**Complete Streets Policy:** Greene County can adopt a policy that includes appropriate infrastructure for bicycling, walking and trails into ongoing roadway projects. This policy will support the NY State Complete Streets legislation that passed in 2011. In Ulster County, a similar policy was tailored to meet the conditions of rural roads in the Catskill Mountain region.



Figure 16: Sidepath on two-lane roadways

**Funding Options:** There are a wide range of public, private, and nonprofit resources available for trails in Greene County. For most federally-funded transportation projects, 20% of the cost is required in local matching funds. A local trails fund can be established through a combination of grants, private donations, development impact fees, the sale of bonds, and municipal budget processes. An important grant source is the annual NY State Consolidated Funding Application (CFA).

**“Adopt a Trail” Program:** In order to ensure long term support, each trail project can be ‘adopted’ by local community partners. The adoption process can include working to secure funding and resources for each section, and eventually to serve as a community building effort for long term trail maintenance and operations.

**Branding / Marketing:** It is important to use a consistent “brand” for the Greene County trails, including a logo, website, and promotional materials. The identity of the trails can serve as a defining feature in the county. Where possible, the wayfinding signage and graphics can be provided on existing trails, as new sections are built, and to identify future alignments.

**Celebrations:** Where possible, every step forward on a project should be celebrated publicly. National Trails Day, Walk/Bike to School Day and other events are opportunities to keep the trails initiative visible.

With a long tradition of trails in the Catskill Mountains, access to one of the world's largest tourism markets and the growing popularity of trails, Greene County is in a great position to capitalize on the concepts presented in this plan. Local communities, stakeholders, agencies, elected officials know that trails can provide health, environmental, transportation, recreation, economic and quality of life benefits. With the development of a public, private and non-profit partnership, a new network of trails will help Greene County "Awaken to Adventure."



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2. Map - Trout Fishing Spots In Greene County
3. Map - Catskill Park Unit Management Boundaries
4. Map - Catskill Main Street Walking Map
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