

Henderson County ***Greenway Master Plan***

30 YEAR VISION



Adopted April 1, 2019



HCGREENWAYS.ORG

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ACKNOWLEDGEMENTS

The following individuals and organizations have been nothing short of essential in the planning, design, and completion of this master plan. The County extends our deepest thanks.

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EXECUTIVE SUMMARY

OVERVIEW

Greenways allow multiple objectives to be met at once. They create open space recreation that promotes healthy living, conserves habitats and biodiversity, aids in tourism and economic development, and preserves cultural and community assets. Henderson County first planned for county-wide greenway connections in 1999. Since then, almost eight miles of greenways have been constructed in the County. Today, the County is planning for the future with realistic and achievable goals like improving the quality of life, protecting the County's natural, cultural, historic, and scenic resources, providing safe and accessible recreation, and creating alternative transportation opportunities. This Greenway Master Plan establishes and communicates a broad vision for a countywide Greenway Network, and provides guidance to Henderson County and its partners, so that all involved can collaboratively work towards and benefit from that vision.

Implementation of this Greenway Master Plan will be a long-term process. Through the creation of new goals and reaffirmation of goals previously adopted in the Comprehensive Plan, Community Plans, and Community Health Assessments, this plan will lay the foundation for the continued success of the County in its greenway efforts over the next thirty years. As time passes, the County will adapt to growth and change - public objectives, local situations, and funding opportunities will evolve. The Henderson County Greenway Master Plan should be viewed as a working document that will still be relevant thirty years from now. The County should update the entire document, as well as reevaluate the recommendations and implementation method, approximately every five to ten years to ensure the continued improvement and enhancement of the area's greenway efforts.

This Master Plan identifies three types of greenways: Priority Greenways, Destination Greenways, and Connection Greenways. The three Priority Greenways are the Oklawaha Greenway, Ecusta Trail, and French Broad River Greenway. These greenways are important connections to other western North Carolina residents. The trails would eventually join a proposed regional trail network, The Hellbender Regional Trail, via adjacent counties. This Master Plan's identified Destination Greenways are: Community of Edneyville, Mills River Valley Trail, Town of Fletcher Greenways, Green River Game Land Greenway, and the Village of Flat Rock's Carl Sandburg Home Greenway. These potential routes link the different greenways together expanding the reach of each greenway for the user. Connection Greenways are yet to be defined and will evolve over time. They are meant to be direct routes, extensions of Priority or Destination Greenways, that can be utilized for commuting as well as recreation.

In the next few pages, the Policy and Action Step Recommendations are laid out in their entirety. Each recommendation is integral to the success of this plan, so all are included within the Executive Summary.

POLICY RECOMMENDATIONS:

- Greenways should be recognized in County policies as a tool to build communities, promote health benefits, provide outdoor education opportunities, encourage a sense of safety and awareness of the surrounding neighborhoods and properties, provide transportation connectivity, and provide a safe place for our future generations to walk, bike, and explore our natural environment.
- The County should determine a policy to incorporate the use of existing and future utility easements for public use greenways.
- The County should adopt a similar policy as the Mountain to Sea Trail to explore alternative options to work around uninterested property owners such as the use of NCDOT roads, bike lanes, sidewalks, etc.
- The County should request that NCDOT reconsider its policy on bike/ped projects related to required local match requirements. Many local governments cannot provide the required funding match.
- The County should consider adopting a Greenway Overlay District in the Land Development Code that would primarily apply to the identified Priority Greenways.
- The County should strive to connect greenways to existing public transportation facilities.
- The Transportation Advisory Committee (TAC) should support the greenway network by seeking the advancement of projects and funding in the State Transportation Improvement Program (STIP) when local matching funds are available.
- Economic development opportunities should be supported and encouraged along identified greenway corridors.
- The County should work with non-profits, the Partnership for Health, the Council on Aging, and other partners to educate the public and property owners about the benefits of greenways as a health and wellness goal.
- The County should work with the NC Office of Outdoor Recreation Industry to further develop outdoor recreation in Henderson County and the region with a focus on the Greenway Network.
- When appropriate, the County should work with the Henderson County Board of Public Education and local school representatives to connect schools with greenway opportunities.

ACTION STEP RECOMMENDATIONS:

ADOPT THE PLAN

- The previously adopted community plans and future community plan efforts should be used to explore locations and needs for the County's Priority and Destination Greenways.
- The County should consider establishing a greenway board to implement the Master Plan and feasibility studies.
- The County should continue to seek public participation, including public information sessions, while implementing various plan recommendations.
- The County should publish a website dedicated to this Master Plan and include an interactive map to encourage greater public input.

COMPLETE PRIORITY GREENWAY SEGMENTS

- Priority Greenways, as identified in the Master Plan (Section 2.2), should be considered first for construction to create regional connections.
- The county's Priority Greenways should be identified and included as part of the regional greenway system for the French Broad River MPO area.
- The County should work in cooperation with Transylvania County, the City of Brevard, the City of Hendersonville, and the Town of Laurel Park to develop the proposed Ecusta Trail, if it is reasonably determined that the rail line from Hendersonville to Brevard has no viable future rail use. As part of this effort, the County, in conjunction with the above local governments, should consider requesting the State acquire the rail line for the purpose of establishing a greenway. The County and its partners should also review the federal rail banking statute as a means of securing and preserving the line.

EXPLORE FEASIBILITY OF DESTINATION AND CONNECTION GREENWAYS

- Destination and Connection Greenways, as identified in the Master Plan, should be constructed as funding opportunities become available.
- The Municipal Inner Loop Greenway should be supported to connect historic Hendersonville, Laurel Park, and the Village of Flat Rock to the Priority and Destination Greenways with health and wellness destinations, local attractions, and businesses.
- County staff should have the discretion to assess when an area is "ready" for the greenway process. The county should also consider completing formal feasibility studies to aid in this assessment.

EVALUATE GREENWAY EASEMENT OPTIONS

- The County should develop greenways through voluntary negotiations or contributions.
- The County should encourage non-profits to work with local landowners to secure easements and establish a method to receive and hold financial contributions for greenways.
- The County should determine a policy to incorporate the use of existing and future utility easements for public use greenways.

IDENTIFY FUNDING AND COMMUNITY PARTNERSHIPS

- The County should utilize public-private partnerships and work with local business owners, industries, and the Partnership for Health to secure funding to complete the Greenway Network.
- The County and surrounding municipalities should consider setting aside funding each budget year for greenway development that would be used for grant match and other related funding needs related to the Greenway Network.
- The County should work with the Tourism Development Authority (TDA) to secure funding for portions of the Greenway Network that will increase tourism and enhance economic development.
- The County should coordinate with municipalities to seek funding that is only available to municipal governments for the creation of the identified Greenway Network within those municipalities.

DESIGN AND CONSTRUCT TRAILS

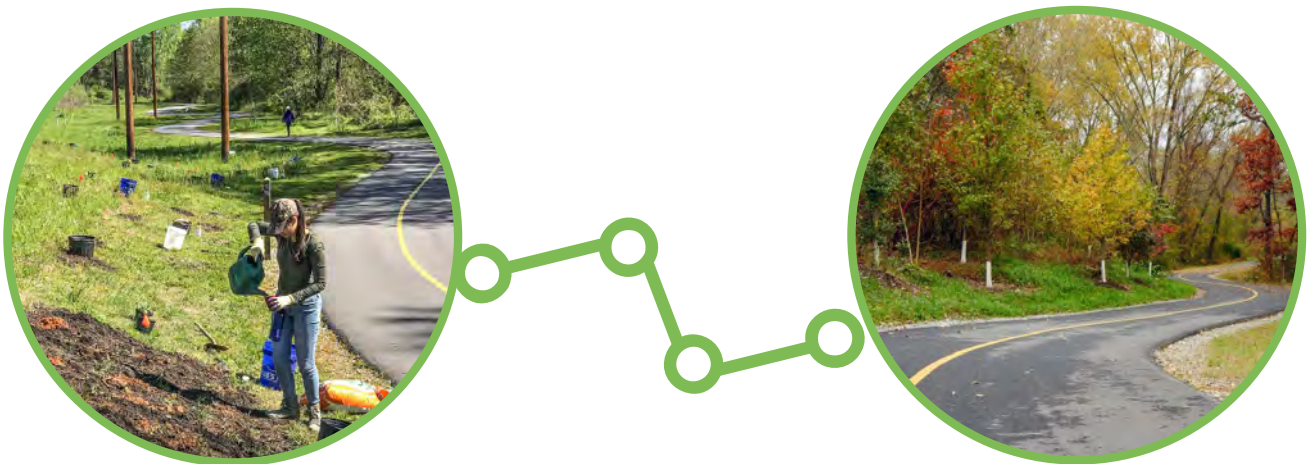
- The County should coordinate design and construction efforts with other local governments and non-profits for a uniform and consistent Greenway Network.
- All greenway construction efforts should be based on a phasing plan as identified in a corresponding feasibility study.
- The County should consider phasing greenway construction when necessary if a paved trail cannot be achieved. This could include acquiring easements for a grass walkway or mulch or gravel type surface in order to get a greenway on the ground. Funding for final trail paving could then be achieved later.
- The County should work with NCDOT to provide multi-use paths or utilize sidewalks to achieve the overall connection of the greenway network. NCDOT roads and bike routes should connect sections of the greenway network when no other connections are available or for short-term connection solutions.
- Appropriate hydraulic modeling should be performed whenever a greenway is to be constructed in a floodplain.
- Greenway designs and plans should consider the surrounding environment and minimize adverse effects.
- Greenway design should consider not only the greenway itself, but also trail amenities to create a complete, accessible, and comfortable experience for a wide variety of expected users. As the trail network grows, key amenities for longer greenways could include restrooms, lighting, benches, water fountains, and bike repair stations.
- The County should work with its partners to establish a regional trail branding and way-finding program. This will help legitimize the network and create a consistent way to market greenways for economic development, community health, and tourism purposes.

MAINTAIN TRAILS:

- Maintenance of existing greenways should be a priority.
- The County should coordinate maintenance efforts with other local governments, non-profits, and partners.

Greenway maintenance is essential to the long-term viability and sustainability of the greenway network. The network should be viewed and maintained as a public resource. This plan recommends a strong, collaborative approach to maintenance.

- The County should not only consider low-maintenance greenway designs, but also the most efficient and cost-effective means for maintaining the greenway network. Options include:
 - Contracting a private party that specializes in outdoor facility maintenance
 - Creating an inter-governmental agreement with the City of Hendersonville and other municipalities to garner equipment and resources
 - Working with non-profits to set-up volunteer maintenance on certain sections when possible
 - Establishing a separate fund in the Parks and Recreation budget to cover greenway maintenance costs
 - Creating an avenue for greenway users to report maintenance issues specific to the trail. This could be done via a smart phone application, a specific telephone line, or a email address dedicated to the greenway.
- A routine maintenance schedule for the greenways should be developed and tracked. Maintenance of trail amenities such as lights and solid waste collection should also be considered.



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INTRODUCTION

- 1.1 History
- 1.2 What is a Greenway
- 1.3 Vision and Purpose
- 1.4 Goals and Benefits
- 1.5 The Planning Process

1.1 HISTORY

Henderson County, along with all Western North Carolina, is known for its natural beauty and rich history. Henderson County is home to beautiful forests, rivers, farmland, and mountains. Its residents have an interest in protecting the County's resources and finding new ways to promote healthy living. The development of greenway trails is a way to preserve the history and beauty that many have come to love and enjoy.

Greenways in Henderson County were first mentioned in the 1993 adoption of the Comprehensive Land Use Plan. The plan called for the appointment of a committee to "consider the feasibility of acquiring easements to develop a linear park and greenway system along the rivers and streams of the County to accommodate bicycle and pedestrian paths as well as compatible recreation uses." From 1997 to 1999 the Henderson County Greenways Steering Committee began planning and completing various tasks related to the development of greenway trails within the County and its municipalities.

In 1999, an interlocal agreement was signed establishing the Apple Country Greenways Commission, which included representatives from Henderson County, the Town of Fletcher, the City of Hendersonville, and the Town of Laurel Park. The Commission recommended the Oklawaha Greenway as a demonstration project, which was expanded as three separate phases or sections. The Oklawaha Greenway became the first official greenway trail in Henderson County. Phase I of the Greenway connects Jackson Park to Seventh Avenue (along Mud Creek) and opened to the public in 2004. Phase II of the Oklawaha opened in 2009 and connects Seventh Avenue to Patton Park. Phase III of the project, opened in 2016, and connects Patton Park to Berkeley Mills Park. The total length of the three phases is 3.75 miles.

Various community groups formed within the County over the years promoting the expansion and protection of greenways. Friends of the Oklawaha and Friends of the Ecusta Trail are two examples of these groups that have worked diligently over the years to develop and propose new trails in Henderson County.

As a committee made up of individuals who represent a plethora of community interests, the Henderson County Greenway Master Plan Committee was directed to develop a Greenway Master Plan for Henderson County that will be presented to the Board of Commissioners for its consideration and adoption. The Committee met from March through November 2018.



1.2 WHAT IS A GREENWAY?



The term "greenway" is a synonym for "trail". Greenways are also sometimes referred to as "multi-use trails" or "shared-use paths".

A greenway is a linear, public open-space system established along either a natural corridor, such as a river, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, scenic road, or other route.

It is a natural or landscaped course for pedestrian or bicycle passage.

A greenway can be an open-space connector that links parks, natural preserves, cultural features, or historic sites with each other and with populated areas.

Individual greenway trails can come together to make a network of greenways providing connectivity.

Greenways are typically paved, multi-use pathways that are low stress, safe places for walking, jogging, cycling, baby strolling, and wheelchair use. Greenways are beneficial to our economy, health, wellness, transportation, recreation, culture, environment, and quality of life.



1.3 VISION AND PURPOSE

“CREATE A SAFE, ACCESSIBLE, COMPREHENSIVE AND CONNECTED SYSTEM OF CONSTRUCTED GREENWAY TRAILS THAT ENHANCES QUALITY OF LIFE THROUGHOUT HENDERSON COUNTY BY PROVIDING OPPORTUNITIES FOR TRANSPORTATION, RECREATION, PUBLIC HEALTH, ECONOMIC DEVELOPMENT, AND ENVIRONMENTAL STEWARDSHIP.”

Over the past twenty years, the County has been involved in greenway planning and creation on a small scale. During this time, the desire for greenway creation and greater connectivity between greenway trails was established in the various trails proposed in adopted municipal plans.

In order to be more proactively involved in this process, and to address the growing interest in greenway trails, Henderson County created this plan and determined a county-wide vision for a greenway network as well as recommendations for itself and partnering entities.

The purpose of the plan is to serve as a guideline for future trail development and provide a framework for local governments and partners to create a connected greenway system across the County for all to enjoy.



1.4 GOALS AND BENEFITS

GOALS

-  IMPROVE ACCESS TO RECREATION FOR HEALTH
-  INCREASE COUNTY CONNECTIVITY & TRANSPORTATION OPTIONS
-  ENCOURAGE ECONOMIC SUPPORT OF LOCAL BUSINESSES
-  PROMOTE THE NATURAL BEAUTY & ENVIRONMENTAL DIVERSITY IN THE COUNTY

BENEFITS

(See Appendix C for full list)

-  Strengthening the local economy (increased tourism, higher property values, new business attraction, worker recruitment)
-  Encouraging physical fitness and healthy lifestyles
-  Providing a safe, alternative method of transportation
-  Creating new recreational opportunities for all ages
-  Preserving Henderson County’s natural, historical, and cultural environments
-  Mitigating flood damage and preventing soil erosion



1.5 PLANNING PROCESS

The 2020 County Comprehensive Plan recommended designing a master plan to revise the Apple Country Greenway Master Plan through integrating greenway and recreation planning. On March 15, 2017, the Board of Commissioners directed staff to work with the Recreation Advisory Board to develop a master greenway plan for the County and apply for grant funding through the French Broad River MPO to conduct two feasibility studies on extending the existing Oklawaha Greenway to the north and to the south.

Contracts for these studies were approved in the spring of 2018, and on March 13, 2018, the Recreation Advisory Board approved the Greenway Master Plan Committee. The sixteen members of the committee represent various community interests including, but not limited to, health and wellness, bicycle and pedestrian safety, cultural preservation, and environmental protection. The committee members are stakeholders and representatives from the following groups and interests: Blue Ridge Bicycle Club, Conserving Carolina, Friends of the Oklawaha, Friends of the Ecusta Trail, Former Apple Country Greenway Commission, Park Ridge Hospital, Pardee Hospital, Partnership for Health, Obesity Action Team, Henderson County Public Schools, NC-280 Corridor Stakeholders, Henderson County Planning Board, Henderson County Transportation Advisory Committee (TAC), Henderson County Recreation Advisory Committee, and Tourism Development Authority (TDA).

PUBLIC INPUT

The Greenway Master Plan Committee met every 3 weeks from March 2018 to October 2018 to form recommendations and action strategies for the Plan.

The Draft Greenway Master Plan was reviewed by the Henderson County Planning Board, Transportation Advisory Committee, and Recreation Advisory Committee before being presented to the Board of Commissioners for adoption.

Public "drop-in sessions" were held at the King Street Meeting Room and the County's main branch library in Hendersonville during plan development. At each session the following opportunities to engage and provide input were available: exhibit review and comment, overview power-point presentation, and interactive input sessions and questions. Session dates were as follows:

PUBLIC INPUT SESSION #1

10:00 AM - 12:00 PM
 Tuesday, October 23, 2018

PUBLIC INPUT SESSION #2

4:00 PM - 6:00 PM
 Thursday, October 25, 2018

Summaries of the sessions may be found in Appendix B of this document.

Approximately 40 people attended the first public input session. Many attendees asked about the progress of the Ecusta Trail and commented on the maintenance of the existing Oklawaha Greenway. Over 60 people attended the second public input session. Many of the attendees were curious to know more about the plan as a whole and when it would be implemented. All public comments are further summarized in Appendix B.

A public survey was hosted online, on a County created website (HCgreenways.org) dedicated to the Greenway Master Plan, from October 9th to October 30th, to capture a greater number of residents' opinions. The key findings from this survey are outlined below. A full summary is located in Appendix B of this document. A total of 539 people responded to the survey during that time period. The survey was still open for public response after October 30th, but the date was chosen as a 'cut-off' date for survey analysis.

Over 80% of survey respondents reside in Henderson County. The age distribution of respondents is relatively equal and is an accurate representation of the County's resident age distribution as a whole. The age group most represented is the 65-74 years category with 23.6% followed by ages 55-64 with 22.8% of responses.

The survey asked respondents to finish the statement, "I am more likely to use or visit a greenway if..." by choosing a provided answer(s) or by filling in their own answer. The answer most chosen was (66% of responses), "If the greenways were closer to where I live/work" followed by "If the greenways offered a more pleasant experience" with 48% of responses, and over 38% of responses were "If the greenways offered more amenities". Thirty percent of respondents chose or also chose to fill in their own answer. Each response is recorded in Appendix B of this document.

The most reported answer (55%) for the fifth survey question, "What do you think is most important for the County to consider when planning for greenways?", was "connection to other destinations". The second most reported answer (19%) was "environmental preservation".

When asked to indicate their level of approval for the Greenway Master Plan (question 6), the overwhelming majority indicated approval. In fact, 93% of respondents either "approved" or "strongly approved". Five percent of respondents chose "neither approve nor disapprove" and 2% of respondents "disapproved" or "strongly disapproved".

93% APPROVAL RATING

55% WANT CONNECTIONS TO OTHER DESTINATIONS

PEOPLE AGES 65-74 WERE MOST REPRESENTED

MOST IMPORTANT TO CONSIDER: "IF THE GREENWAYS WERE CLOSER TO WHERE I LIVE/WORK"

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GREENWAY NETWORK

- 2.1 Existing Conditions & Plans
- 2.2 Priority Greenways
- 2.3 Destination Greenways
- 2.4 Connection Greenways
- 2.5 Regional Connection Opportunities

2.1 EXISTING CONDITIONS & PLANS

IDENTIFIED NEED FOR GREENWAYS

Bicycle and pedestrian accidents are unfortunately common in the area. From 2010 to 2016, pedestrian and bicycle collisions cost the state over \$1 billion in medical costs and work lost. In addition to these costs is the immeasurable burden on the victims' families and friends. In North Carolina, almost 200 bicyclists and pedestrians are killed each year due to collisions with automobiles. In its 2014 Benchmarking Report, the Alliance for Biking and Walking ranked North Carolina 42nd and 46th worst state nationally for pedestrian and cycling fatality rates per capita, respectively. Greenways reduce this statistic by offering a vehicle-free alternative for cyclists and pedestrians to commute, exercise, or travel.

In a 2018 health survey conducted for Henderson County's Public Health Department, the question was asked, "what are the most important characteristics of a healthy community?" Respondents chose three characteristics, out of a list of over twenty, and the second most (28.3%) reported answer was "recreational/outdoor activities". Greenways can help achieve the County's goal of a healthy community by providing recreational and outdoor activities for all to enjoy. This further exemplifies the need for greenways within Henderson County.

"Me gusta el sendero de Oklawaha por muchas razones, pero algo que me encanta es la seguridad del sendero. Me siento cómoda corriendo a las 8 de la mañana con otros montando bicicleta y caminando. No tengo que preocuparme por carros ni tráfico y siempre hay otros miembros de la comunidad cerca."

"I love a lot of things about the Oklawaha Greenway, but one thing I really love is how safe the trails are. I feel safe jogging at 8 am with other bikers and walkers. It is wonderful to not worry about traffic or cars and to be surrounded by other community members."

Elly Withers
 Director of Faith Formation/
 Spanish Interpreter
 St. James Episcopal Church

"A connected system of parks and pathways is manifestly far more complete and useful than a series of isolated parks."

Frederick Law Olmstead

"The greenway provides an outlet for people to get outdoors and helps people of all ages to connect and appreciate that time outdoors together."

Erin Price,
 Local High School Student



CURRENT POPULATION

Over 25% of Henderson County's population is 65 years of age or older. The median age of residents is ten years older than the national and state median ages. Greenways will specifically benefit the Henderson County community because they create easier access to nature and provide multiple recreational opportunities. Multiple studies from the US National Library of Medicine report that older adults who spend longer durations of time in walkable green space and parks exhibit reduced blood pressure and greater longevity.

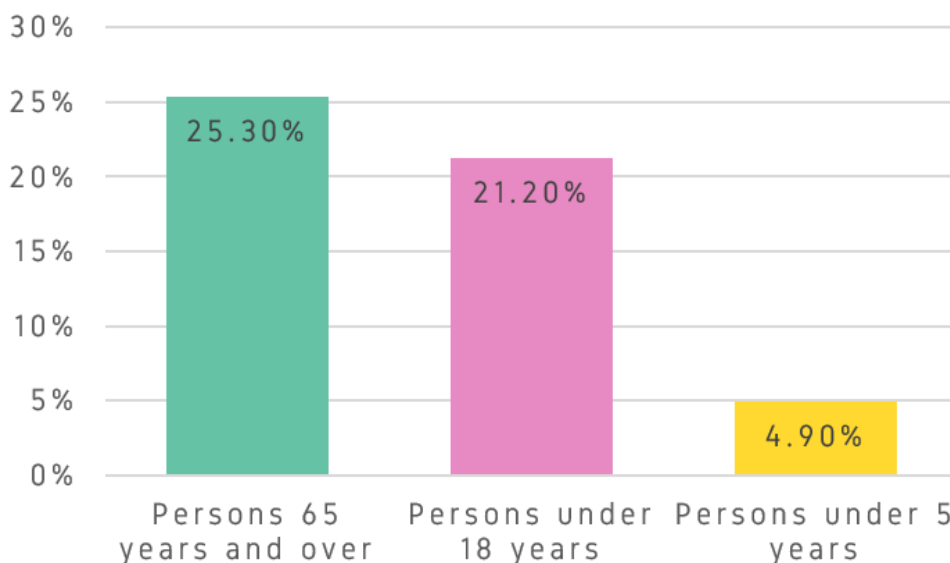
All greenways proposed in this plan are suggested to be constructed as 10' to 12' wide paved trails that are compliant with the Americans with Disabilities Act (ADA) Accessible Design Standards. Not only will this allow for more users of the greenway, it will directly benefit a large portion of County residents who are elderly, but are still active.

The North Carolina Department of Commerce estimates that over 21% of Henderson County's population are under the age of 18. Greenways can provide valuable access to schools and parks, reduce the number of pedestrian-related injuries, and provide safe alternate transportation for students.

The 2016 US Census estimates 19% of County residents identify as a minority race or ethnicity and estimates over 13% of Henderson County residents live below the poverty line. Greenways will improve access to recreation and safe, alternative transportation for all Henderson County residents.



OVERVIEW OF HENDERSON COUNTY RESIDENTS' AGES



EXISTING ENVIRONMENTAL CONDITIONS

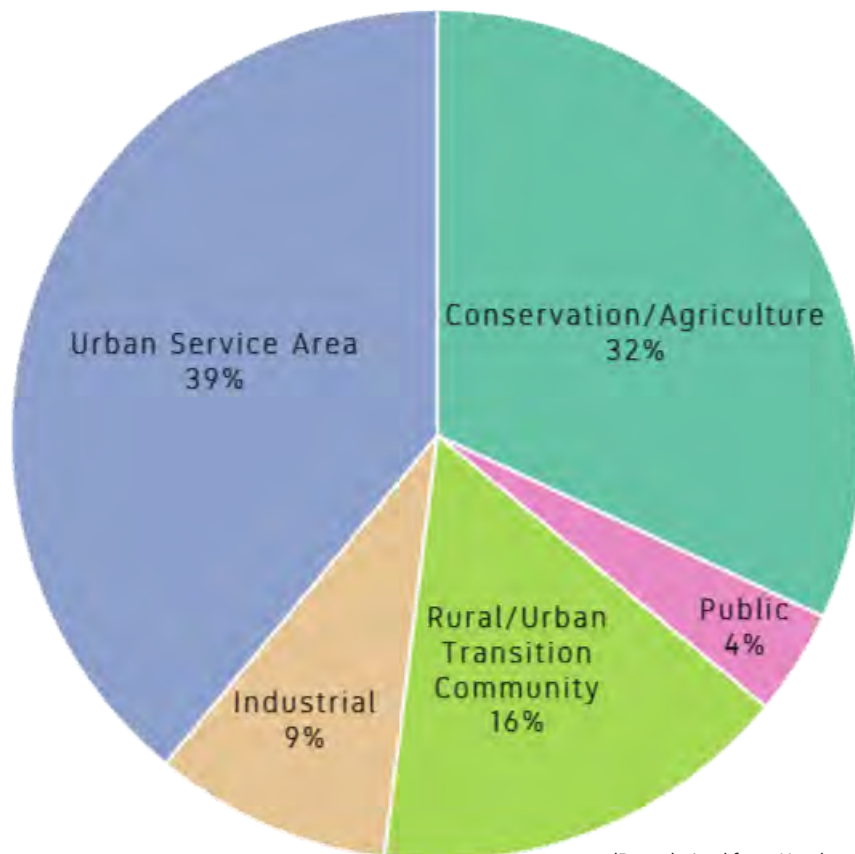
Henderson County is distinguished by its past and current agricultural production. The County's climate and rich soils are ideal for farming. There are approximately 500 farms (average size is 76 acres) operating in the county. Many of these farms are located in frequently flooded areas due to ease of irrigation. Statistically, 31% of all property in Henderson County is either a wetland, watershed, floodway, or in a 100 year flood zone. Greenways present a viable use for these undevelopable properties.

EXISTING LAND USE

The following pie chart details the land use within a one-mile radius of the three Priority Greenways (see Chapter 2.2). The greenways are most likely to encounter properties within the Urban Service Area or property designated for Conservation/Agriculture. The industrial uses are mostly light-industrial and are concentrated along the French Broad River near the Buncombe County border to the north. These industrial uses include many of the local businesses that contribute to the overall economic well-being of the County.

Overall, the breakdown of land uses in the potential placement areas for the three Priority Greenways are well suited for trail creation and would provide an enjoyable environment for the greenway users.

LAND USE WITHIN A ONE MILE RADIUS OF PRIORITY TRAILS



*Data derived from Henderson County tax records in July of 2018

SUPPORT FOR GREENWAYS IN EXISTING PLANS

Henderson County and its municipalities are involved in greenway planning in many ways. The County is currently engaged in the aforementioned Oklawaha Greenway feasibility studies and have completed five community plans, including the Edneyville Community Plan that proposes the creation of a greenway connection to the existing Oklawaha Greenway. The County and municipal plans that are greenway specific are outlined in the table below.



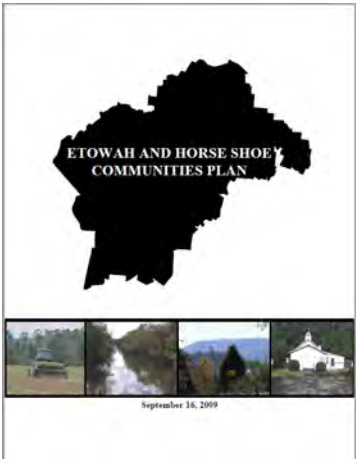
AREA PLANS & FEASIBILITY STUDIES

NAME	PLAN STATUS	ENTITY	SUMMARY
Oklawaha Extension Feasibility Studies	Underway	Henderson County	Projected completion date is December 2018. Extends the Oklawaha north to Buncombe County and south to Flat Rock.
Ecusta Rail Trail Planning Study and Economic Impact Analysis	Complete	City of Hendersonville	Next steps are to acquire right-of-way access.
Mills River Valley Trail	Complete	Town of Mills River	A greenway directed north along Hwy 280, beginning at the intersection of Hwy 191, is currently in preconstruction.
Edneyville Community Plan	Complete	Henderson County	Planned future connection of Oklawaha Greenway to Edneyville Community Center.
Park at Flat Rock Master Plan	Underway	Village of Flat Rock	Vision to connect the park to the Carl Sandburg Home via a greenway.
Town of Fletcher Greenway Master Plan	Complete	Town of Fletcher	Over 3 miles of greenway have already been completed. An additional 6 miles are proposed.
Hwy 191 Multi Use Path Feasibility Study	Complete	NCDOT	A multi-use path will connect with Mills River's Hwy 280 trail and another multi-use path will be created near Rugby Middle School.

HENDERSON COUNTY'S ADOPTED RECOMMENDATIONS

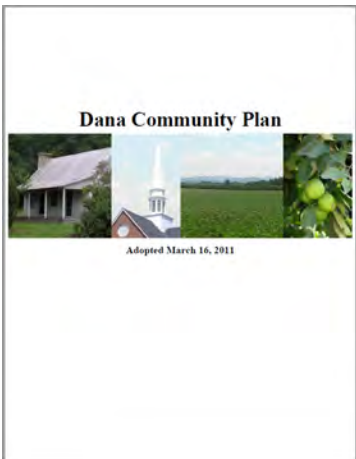
The Henderson County 2020 Comprehensive Plan identified a need for individual community plans within the County. The community planning areas were prioritized based on anticipated growth and included community-specific recommendations related to several elements including; natural and cultural resources, agriculture, housing, community facilities, public services, transportation, economic development, land use and development, and community character and design. A total of five community plans have been completed including the Etowah-Horse Shoe Community Plan, Edneyville Community Plan, Dana Community Plan, GRTZ (Green River, Tuxedo, Zirconia) Community Plan, and the East Flat Rock Community Plan. Recommendations related to greenway development for these plans are listed below:

Etowah-Horse Shoe Community Plan Recommendations:



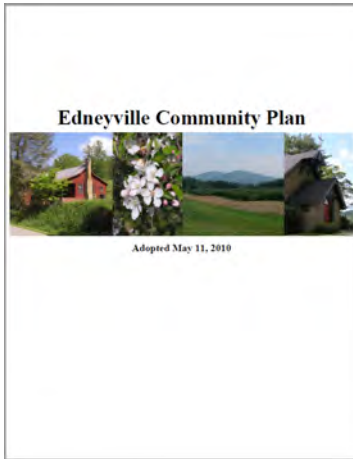
- Consider establishing a greenway between Hendersonville and Brevard on the existing railroad line (CFS1.4.).
 - The County should consider supporting local government and agency efforts to make this a priority and come up with a strategy to achieve this goal. (Note: State grants and the Service District (CFS1.3) could provide funding for construction.)
- Incorporate pedestrian friendly measure in the core of the Communities (CFS1.5.).
 - These measures include sidewalks, trails, traffic calming measures and designated bike routes.

Dana Community Plan Recommendations:



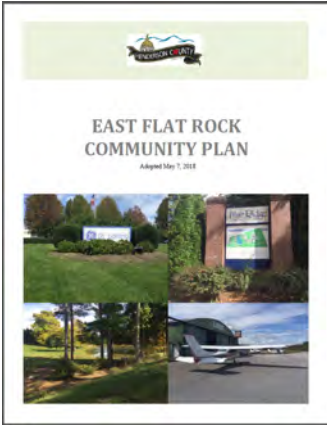
- The County, through its involvement in the French Broad River MPO, should prioritize bicycle projects within the Dana Planning Area in accordance with Plan goals (T1.5.).
 - The Planning Area contains a small portion (3,600 feet) of the proposed greenway network, this segment being located along Crest Road and providing a connection to Upward Elementary School. There are currently no built greenways in the Planning Area.

Edneyville Community Plan Recommendations:



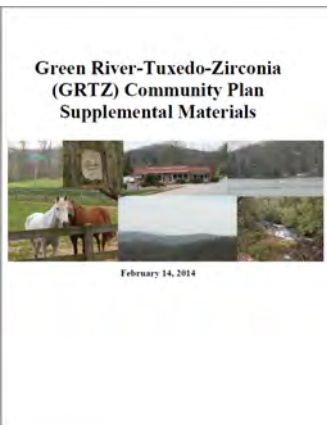
- Integrate public school, recreation, transportation, and public transit planning (CFPS2.1.).
 - Schools should be incorporated in pedestrian system (greenways, trails, and sidewalks), recreation, transportation, and public transit plans.
- Form a community and regional greenway network connecting public recreational facilities within the Edneyville Planning Area (Goal CFPS4.).
 - The Comprehensive Plan proposed greenway would connect Apple Valley Middle and North Henderson High School and the existing Edneyville Park. The greenway should be modified to provide connections to Edneyville Elementary School and the new Edneyville Community Center.
- Expand the proposed greenway to connect all Planning Area park and school facilities (CFPS4.1.).
- Greenways should include bike trails to facilitate on and off-road movement from NCDOT designated bike routes (CFPS4.2.).
- Greenways should be designed to increase the safety of users and adjacent property owners (CFPS4.3.).
 - To increase the visibility of the users, greenways should be: (1) generally located near major corridors, and (2) adequately lit.
- Consider establishing a greenways fund (CFPS4.4.).
 - The County should consider establishing a fund, or create a greenways capital plan, dedicated to providing greenways throughout the County. The fund should be supported by donations/grants from Federal, State, County, municipal, non-profit, and private sources. The County could consider the following alternative funding sources:
 1. Accepting private easement donations,
 2. Establishing bonds,
 3. Using all or a percentage of recreational facilities fees and concessions, and
 4. Using available State programs (including the North Carolina Parks and Recreation Trust Fund, Clean Water Management Trust Fund, and Adopt-A-Trail program).
 - The County may also consider requiring easements be granted to the County when a property along a proposed greenway applies for new development approvals.
- Improve bike trail network throughout the Edneyville Planning Area. The County should work to expand the bike trail network and connect it to proposed greenways (T1.9.).

East Flat Rock Community Plan Recommendations:



- Form a community and regional greenway network connecting public recreational facilities within the East Flat Rock area (Goal C.5).
 - The County, through its involvement in the French Broad River MPO, should prioritize bicycle projects within the East Flat Rock Planning Area in accordance with Plan goals (T1.4.).

GRTZ (Green River, Tuxedo, Zirconia) Community Plan Recommendations:



- Work with NCDOT to identify opportunities to create bike lanes when existing roads are widened or improved (Goal T1.).

Henderson County 2015 Community Health Assessment:

In addition to the County's Community Plans, the County has adopted recommendations related to healthy living through the annual Community Health Assessment (CHA). The most recent CHA recommended forming action teams to develop action plans to address each priority health issue identified in the CHA. The 2015 CHA identified obesity as a health priority issue. The Obesity Action Team (OAT) was created to allow community partners and stakeholders an opportunity to work together to positively impact issues leading to obesity. The OAT identified access to safe walking and biking areas as a contributing factor and OAT efforts to address this issue have included the following:

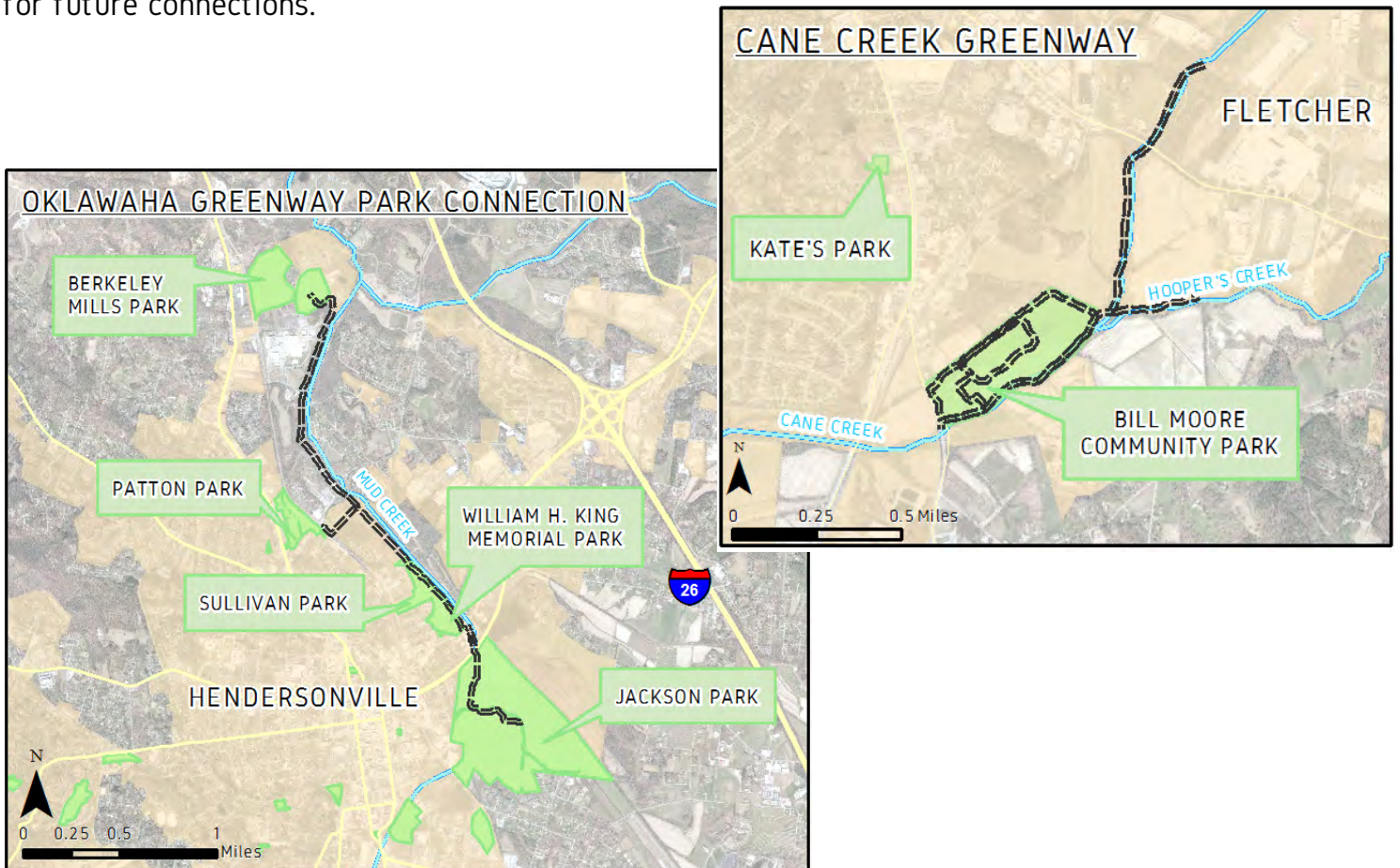
- OAT hosted Be Active Day at the Blue Ridge Mall.
- Blue Ridge Bicycle Club led easy, guided bike rides along the Oklawaha Greenway during spring of 2017.
- The Free Clinics developed a Bikes for Life bike rehabilitation program.
- Safe Routes to School partnered with Mills River Farmers' Market to offer a Bicycle Rodeo for children.
- Three OAT members were active members of the committee that developed this plan.

OVERVIEW OF EXISTING GREENWAYS

Although there are less than eight miles of completed greenways in Henderson County to date, the greenways are popular to a variety of users. Currently, there are two official greenways in the County: The Oklawaha Greenway, with over three miles of built trails, is located in the City of Hendersonville, while approximately four miles of built greenways are located in the Town of Fletcher. In 2015, a study was conducted by the French Broad River Metropolitan Planning Organization (FBRMPO) to count the number of users of the Oklawaha Greenway in a week's period. During that time, the Oklawaha Greenway did not connect to Berkeley Mills Park and was only approximately two miles in length. The study yielded that approximately 230 people use the greenway in some form each day. This statistic has increased in the past three years and the 3.75 miles of the Oklawaha now yields over 500 users each day.

Creating more greenways will establish a connected, alternative-transportation network, which will increase the overall usage of the trails and will serve a greater number of Henderson County residents.

The last greenway to be built in the County was an extension of the Oklawaha Greenway by the City of Hendersonville in 2016 that extended the greenway from Patton Park to Berkeley Mills Park. The popularity of the existing trails, greater public interest in outdoor recreation, as well as the rapid development in the area are all reasons to continue extending the current network of trails and plan for future connections.

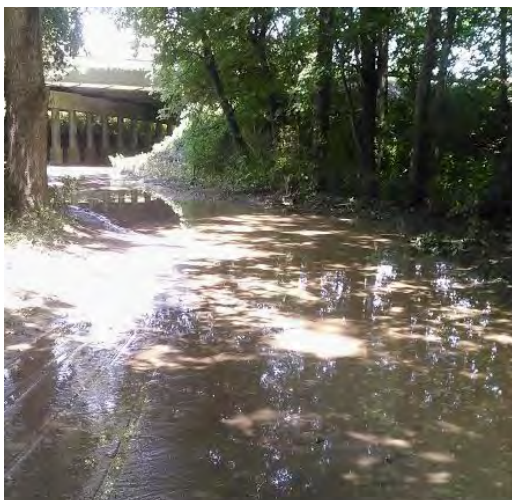


EXISTING GREENWAYS: OKLAWAHA GREENWAY

The name “Oklawaha” is based on the Creek word “Ak-lowahē” which means “muddy” in the Creek language. The Creeks are native Americans that lived in northern Florida, where there is an Ocklawaha River. The greenway received its name because much of the greenway runs along Mud Creek, a key part of the Henderson County watershed. The Audubon Society named the Greenway as a birding “hot spot” because of the wide variety of birds it attracts (Friends of the Oklawaha Greenway website).

The Oklawaha Greenway connects five different parks within the City of Hendersonville. Jackson Park, the largest of the park connections, is maintained by the County as is a portion of the trail itself. The greenway is conveniently located in the middle of the county and residents from many different communities utilize this greenway on a regular basis. Overall, the trail is a relatively flat paved trail and is handicap accessible. The Greenway is a 10-foot-wide asphalt path and has mileage signs every quarter of a mile. The trail also offers benches, water fountains, and three bicycle “FixIt” Stations in various places along the trail. The City of Hendersonville also installed blue light phones for emergency use along the greenway using grant money from the state Department of Transportation (City of Hendersonville website).

The first phase of the Oklawaha Greenway was built in 2004 and is maintained by the County. Unfortunately, that portion of the greenway is often closed due to flooding. When flood waters recede, mud and debris cover the trails making it unappealing and unsafe to use (see photo below). Maintenance of existing trails should be a priority when considering future connections.



Flooding of the greenway before Hwy 64 underpass

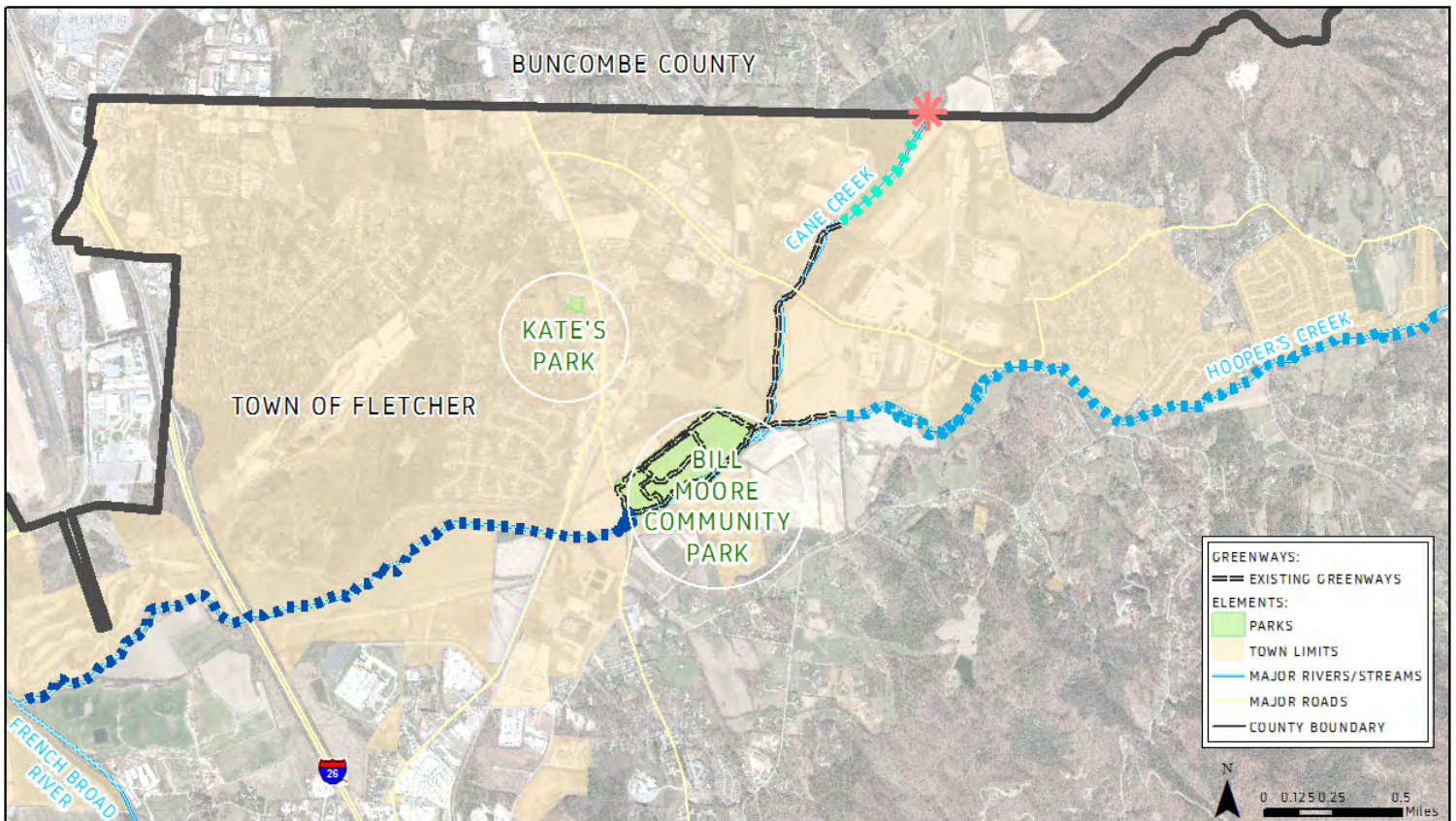


Debris caused by receded flood waters on trail before Hwy 64 underpass

EXISTING GREENWAYS: TOWN OF FLETCHER'S GREENWAY

The Town of Fletcher developed a Greenway Master Plan in 2008, envisioning a 12.65 mile system of walking trails that would span across Town limits and would connect to destinations within the Town. To date, in addition to the 2.05 miles of trails at Bill Moore Community Park, two sections of the system have been completed: a 1.5 mile section of the Cane Creek Trail and a 0.25 mile section of the Hooper's Creek Trail. In total, over 30% of the system has been completed (Town of Fletcher Land Use Plan 2013).

The existing portion of the Cane Creek Greenway consists of 80% pebble stone surface trails and 20% paved or concrete surface trails. The older phases of the trail are 8' in width and the newer phases are 10' in width. The Town of Fletcher plans to extend their Cane Creek Greenway north to the Buncombe County border. Buncombe County proposed a Cane Creek greenway as an extension of a Lake Julian Greenway in their 2012 Greenways and Trails Master Plan.



2.2 PRIORITY GREENWAYS

This master plan identifies three priority greenways: the Oklawaha Greenway, Ecusta Trail, and French Broad River Greenway. Developing these trails will provide a framework for the County and its partners to create a connected greenway network and establish guidance for future greenway development across the County.

The Priority Greenways are to be considered first in greenway planning in order to give the County focus and guidance, but they are not meant to override other greenway connections and opportunities. Priority Greenways were identified based on: funding availability, regional goals, planning consistency, feasibility of the project, public demand, level of use, political will, and/or builds upon prior investment. All three greenways are important connections to other western North Carolina residents. The greenways would eventually join a proposed regional trail network named "The Hellbender" in adjacent Transylvania, Buncombe, and Haywood Counties.

Both the Ecusta Trail and Oklawaha Greenway have a wide range of county resident supporters as evidenced by the Friends of the Oklawaha Greenway and Friends of the Ecusta Trail organizations. Due to these group's persistent and widespread efforts, many people in the region are familiar with both trails and supportive of the feasibility studies conducted in 2012 and 2018 respectively. This immense public support easily categorized both greenways as Priority Greenways. The French Broad Greenway was identified as a priority in order to highlight the river's popularity through existing river accesses. The greenway will allow the County to create more river access points and support the growing economy of outdoor industries. Additionally, greenways will protect the watershed that serves as the drinking water for both Henderson and Buncombe counties. A greenway may also benefit area residents by mitigating flooding of surrounding properties and reduce river bank erosion.



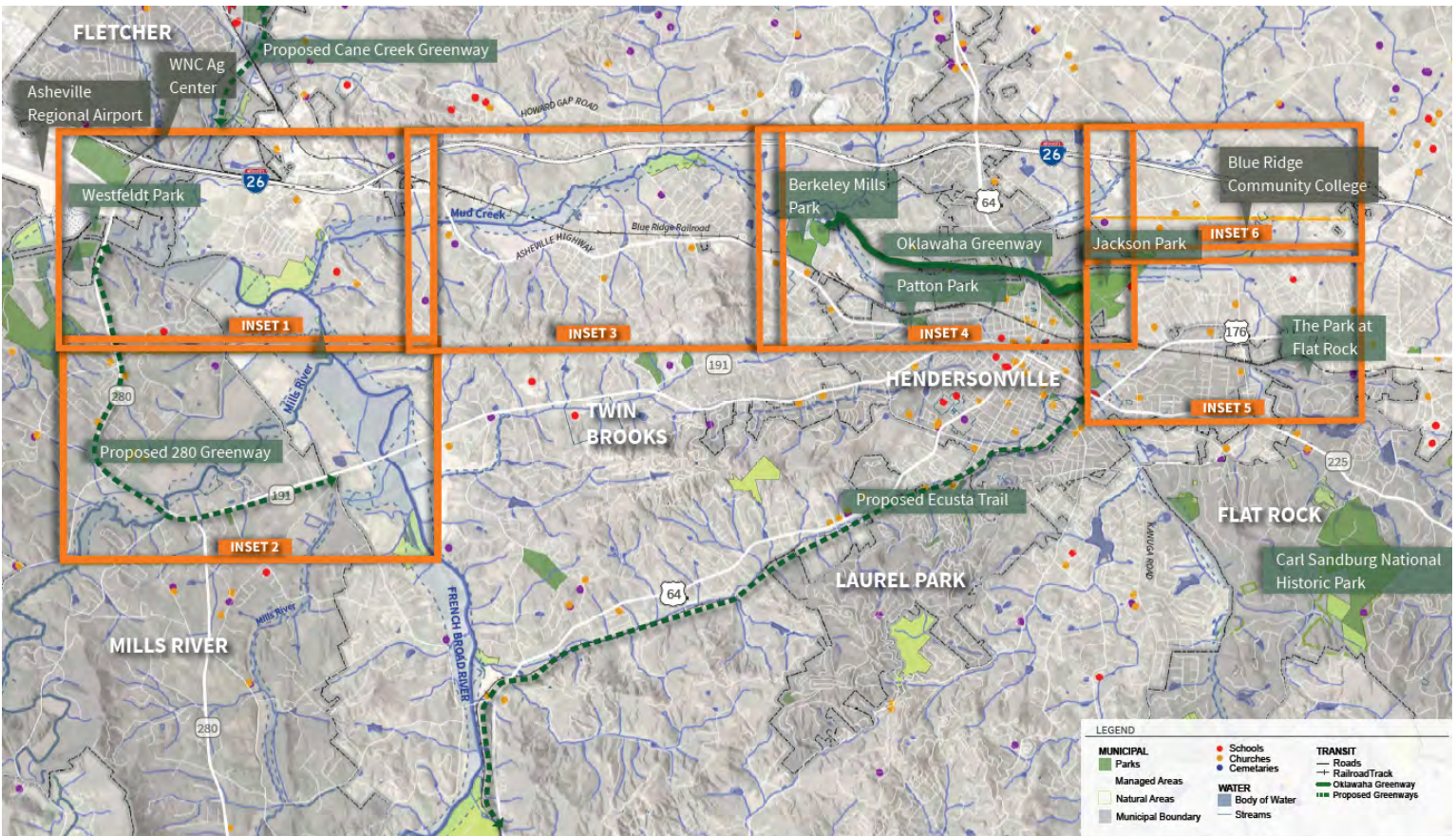
OKLAWAHA GREENWAY

The Oklawaha Greenway is approximately 3.75 miles, mostly in the Hendersonville city limits.

Henderson County hired a consulting firm in the spring of 2018 to craft two feasibility studies for the northern and southern Oklawaha Greenway extensions. The extension of the greenway to the southern end of the County is supported in the FBRMPO 2040 Metropolitan Transportation Plan (MTP), and noted on the MPO prioritization project list (SPOT ID B142121). Both greenway extensions are recommended in the Henderson County Comprehensive Plan (CCP).

The feasibility studies propose an additional 11 miles to connect the existing greenway north to Westfeldt Park and south to The Park at Flat Rock, which already boasts 1.4 miles of trails (Ed Lastein Trail). The southern extension will likely also connect to Blue Ridge Community College. In coordination with the northern extension, the County is currently developing Kunz Farm Park, a nature and agricultural heritage park, which includes a 1/3 mile scenic river walk alongside working farmland. Kunz Farm Park will connect to Westfeldt Park via a pedestrian bridge across the French Board River.

Below is a map of the possible areas where the extensions could be built.



ECUSTA TRAIL

The Ecusta Trail is a 19 mile proposed multi-use, walking, hiking, and biking greenway along the railway corridor connecting the City of Hendersonville in Henderson County to the The City of Brevard in Transylvania County. Once complete, it will connect with the existing Brevard Bike/Walk Path, the Estatoe path leading into Pisgah National Forest, and the Oklawaha Greenway connecting Jackson Park, Patton Park, and Berkeley Park in Hendersonville. This master plan focuses on the approximate 12 miles of trail that would be located in Henderson County.

The Ecusta Trail received its name as a way to honor the region's Cherokee and industrial history. The term 'Ecusta' means 'rippling water' in the Cherokee language. The former Ecusta paper mill operated from 1939 to 2002 and was a central user of the rail line for freight service. Since the mill's closure, many area residents expressed interest in converting the rail line into a multi-use rail-trail (Friends of Ecusta Trail website).

The City of Hendersonville conducted a planning study for the Ecusta Trail in 2012. The plan's conclusion is that the Ecusta Trail is feasible to build as a rail-to-trail greenway for long-term public use, but right-of-way must be acquired in order to move forward. The planning study has not been updated since Norfolk Southern Corporation sold the rail line to Watco Companies in 2014. The current rail owner has yet to utilize the Ecusta line and refers to it as "out of service". According to the Ecusta Rail Trail Planning Study & Economic Impact Analysis as well as federal statutes, if a rail right-of-way is legally abandoned, 'railbanking' (a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until a railroad might need the corridor again for rail service) is a sufficient, legal process for transferring ownership rights from the railroad to a trail agency preserving an intact right-of-way.



FRENCH BROAD GREENWAY



The French Broad River is the third oldest river in the world behind the Nile River and the New River (USDA Forest Service). The river has served as a valuable resource for thousands of years. The Cherokee fished its waters and farmed and built villages amid the rich bottom land. European settlers used the river as a means to navigate the mountainous terrain. In the 1820s, farmers drove their livestock along the river via the Buncombe Turnpike. Beginning in the 1880s, the river was again followed to build a railroad. Today, it is nationally known for its beauty, natural flow, and connection to the Mississippi River.



The main impetus for a priority French Broad Greenway is the desire to preserve its natural features, foster the County's economic growth, and connect western North Carolina through a regional trail. In addition, the Greenway Master Plan Committee recommends that greenways be located, where practical, next to rivers, streams, and other scenic landmarks.



Many jurisdictions in the area are building greenways along the French Broad River. Buncombe County is in the engineering phase of implementing a river greenway from the Madison County border to Asheville City limits. The City of Asheville has already built over three miles of trails along the river (in the River Arts District) and plans to build another seven miles within the next five years. Those additional miles would connect to Buncombe County's second phase of the French Broad River / Hwy 251 greenway that is planned to end at the Henderson County border.

It is desirable to continue the greenway into Henderson County due to the river's high usage, notable businesses and organizations currently operating along the river, and the potential to create a greater tourist interest in the County.

Notable businesses and organizations include Lazy Otter Outfitters, Mountain Horticulture Crops Research Extension Center, and New Belgium Brewing Company, which opened in Buncombe County in 2016.

FRENCH BROAD GREENWAY

Henderson County's approximate 20-mile stretch of river runs mostly through rich agricultural bottom land. A greenway along this stretch of river would help preserve the area's agricultural character and act as a wildlife buffer. It could also mitigate flood risk and prevent damage to developed properties.

The French Broad River is a valuable natural resource. The river is home to a unique ecosystem and its watershed provides the drinking water for many area residents. In addition, many people from all over the country flock to the river to enjoy water sports like fly fishing, kayaking, and tubing. Based on statistics compiled by MountainTrue, an average of 2,000 people recreate on the French Broad (in Henderson county) in some form every year. The County is home to one commercial tubing enterprise, which averages 1,100 tubers who float down the French Broad River between Henderson and Buncombe County each summer.

Part of the river's national recognition comes from The French Broad River Paddle Trail. The trail is a recreational watercraft trail originally created by the NC General Assembly in the 1980's. It was later extended more than 70 miles by RiverLink and MountainTrue. The paddle trail facilitates public access to and camping on over 140 miles of the French Broad River, from the headwaters in Rosman, North Carolina to Douglas Lake in Tennessee.

Henderson County maintains multiple access points along the river. The County built Westfeldt Park within the Town of Fletcher in 1991 and later added a boat launch to accommodate the growing interest in the river. The County is currently in preconstruction of another park across the river in the Town of Mills River called Kunz Farm Park, which is planned for a 27 acre piece of donated farmland. The park will highlight the agricultural history of the area and will open in the spring of 2019.

The French Broad Greenway would benefit the County parks and boat launches that currently exist along the river as well as be an opportunity to create more needed river access points.

HENDERSON COUNTY MAINTAINED RIVER ACCESS			
NAME	LOCATION	SIZE (acres)	Amenities
Westfeldt River Park	Intersection of Hwy 280 and Fern Cliff Park Drive	15	Boat launch, picnic area, parking, & paved trails
Blantyre Park	On the Transylvania County line	3	Boat launch & parking
Horse Shoe River Access Park	Intersection of Hwy 64 and Cummings Rd. near Etowah	1.7	Boat slip, floating dock, & parking

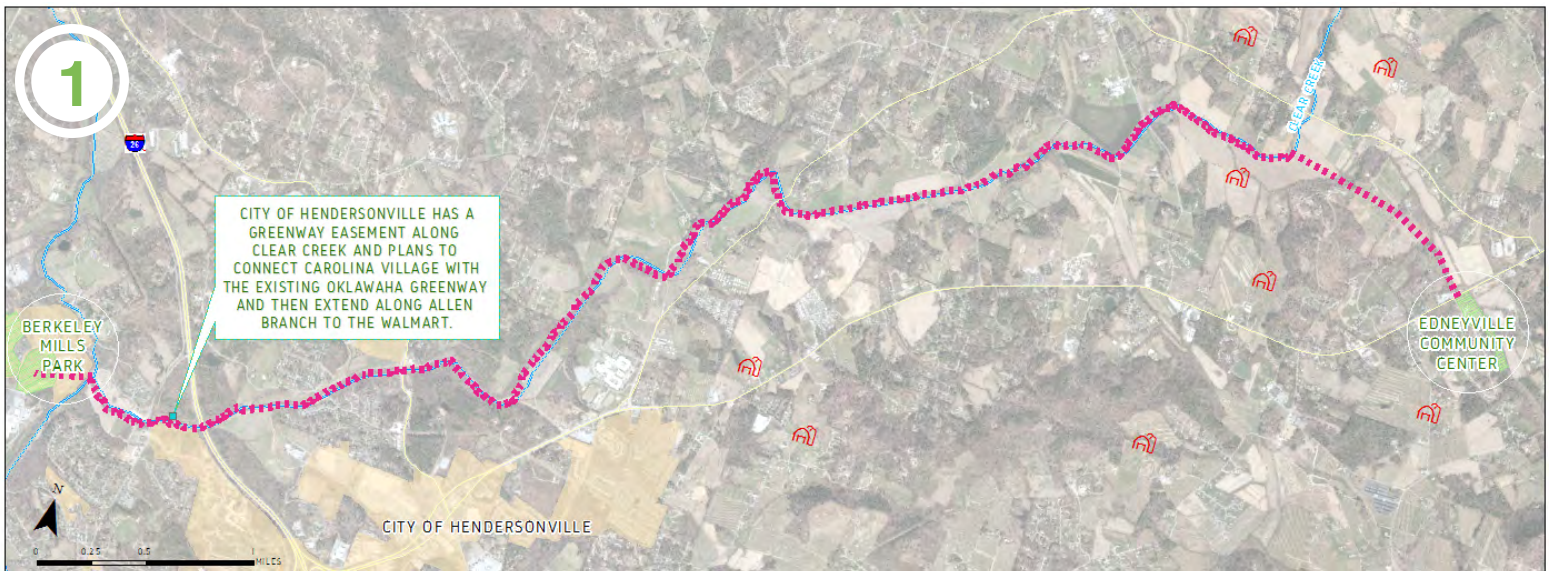
2.3 DESTINATION GREENWAYS

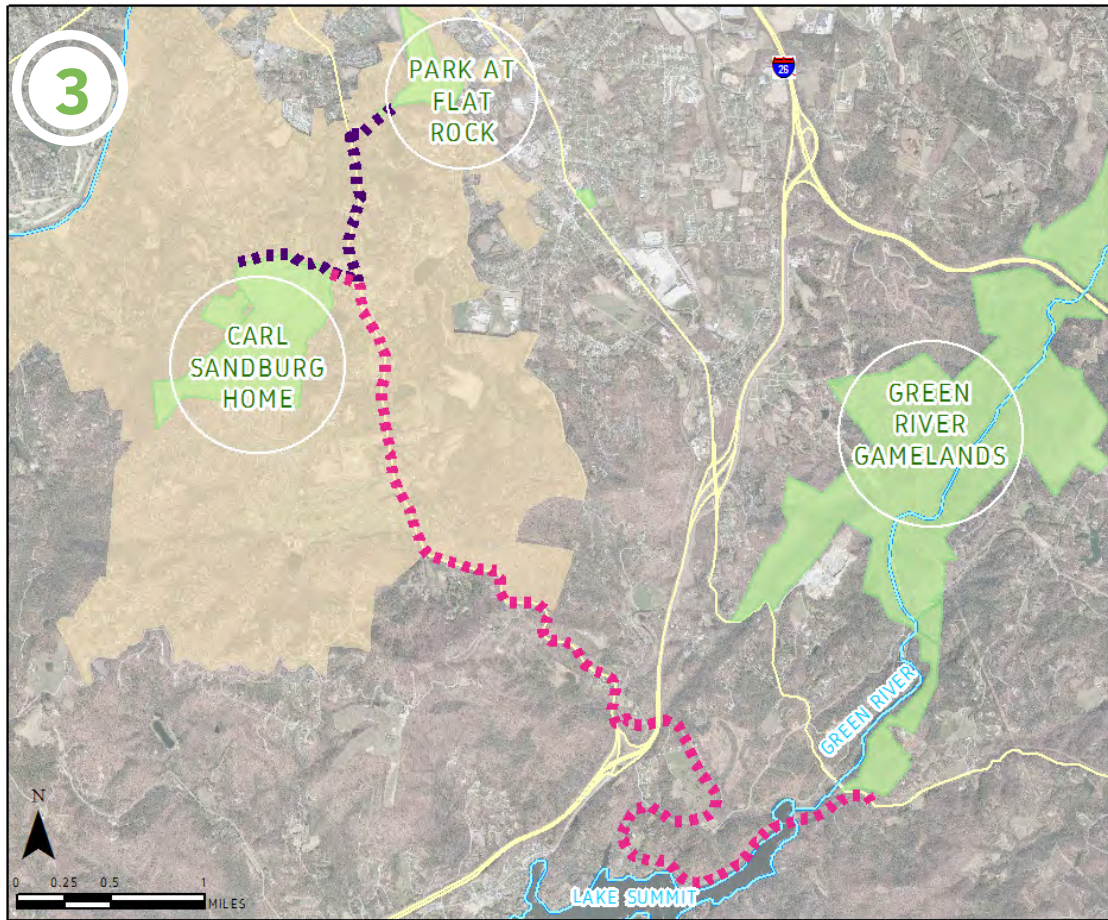
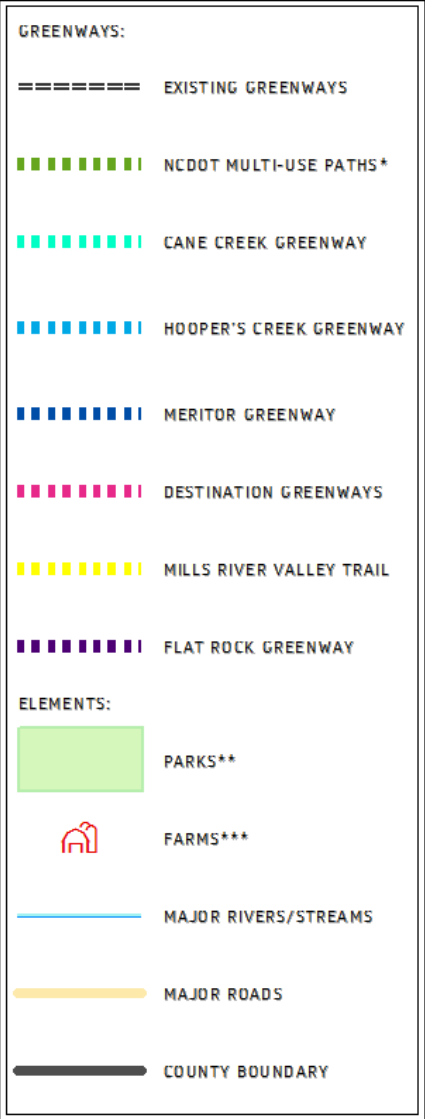
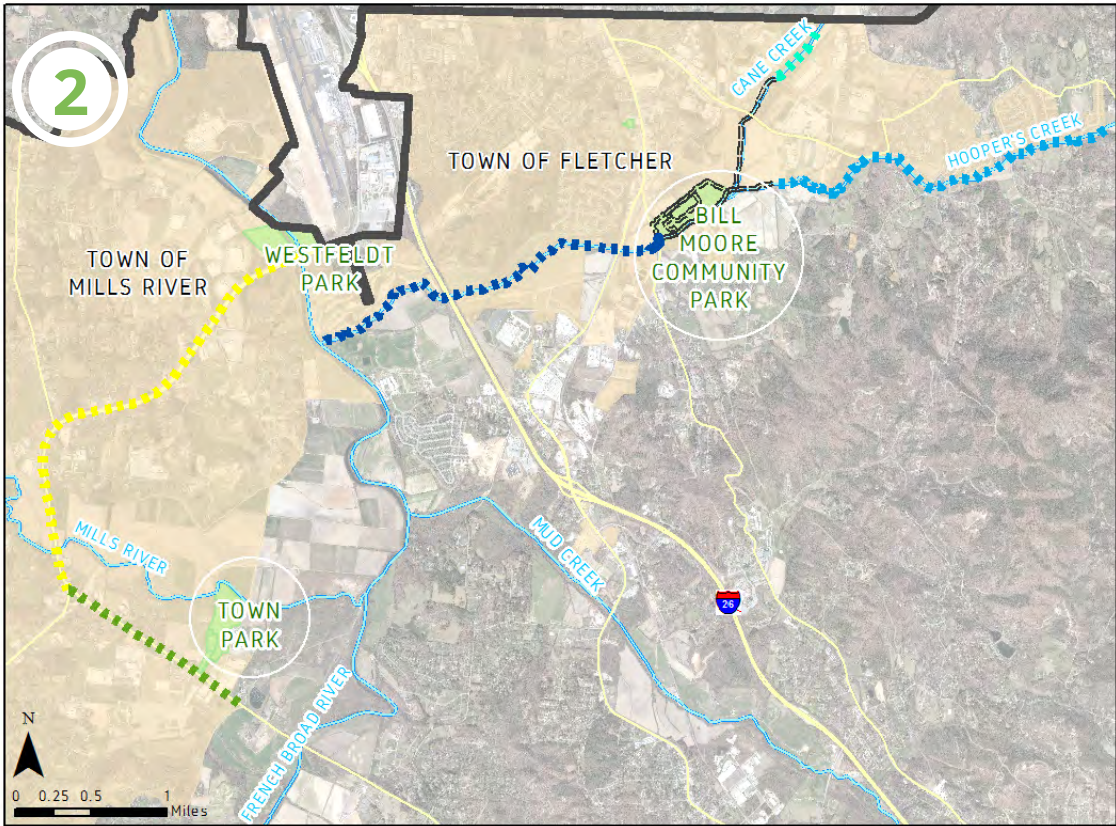
Destination Greenways within this master plan are desired by residents, as evidenced in the adopted community plans. These additional trails will create a meaningful network of trails, providing the County's goal of connectivity.

Several areas have been identified where there are strong potential connections between greenway segments. These potential routes link the different greenways together expanding the reach of each greenway for all users. They also provide a different experience for the user by providing alternative loops within the greenway and expanding greenways into new areas. The proposed Destination Greenways, as shown in three different maps (on this page and the next), include connections to lesser populated areas of the county to the east and south. Other Destination Greenways include trails proposed in the Town of Fletcher, the Village of Flat Rock, and the Town of Mills River's municipal plans.

This Master Plan identifies the following Destination Greenways: Community of Edneyville (Map No. 1), Mills River Valley Trail and Town of Fletcher Greenways (includes the Cane Creek, Hooper's Creek, and Meritor greenways) (Map No. 2), Green River Game Land Greenway and the Village of Flat Rock's Carl Sandburg Home Greenway (Map No. 3).

In addition, this Master Plan identifies the southern extension of the Oklawaha Greenway as connecting from the existing greenway to The Park at Flat Rock. The Village of Flat Rock's Park Master Plan proposes a greenway beginning at the Park at Flat Rock that would continue south to the Carl Sandburg Home. If the Village creates this greenway connection, the County would consider extending from the Carl Sandburg Home south to the Green River Game Land as a specified Destination Greenway. If the trail is continued south to the county border or out along the railroad toward Saluda in the years to come, the greenway extensions would likely come together and be referred to as simply, the Oklawaha Greenway.





*Multi-Use Paths are to be constructed as part of the Hwy 191 widening project.
 **Parks include county parks, city parks, state parks/forests, and national parks/forests.
 ***Farms are a representation of popular farms and orchards that are accessible to the public. Not all farms are captured in this map. All locations are approximate.

Please note that all greenways delineated in this map are representative of desirable locations to make greenway connections. The mapped lines of non-existing greenways are theoretical in nature.

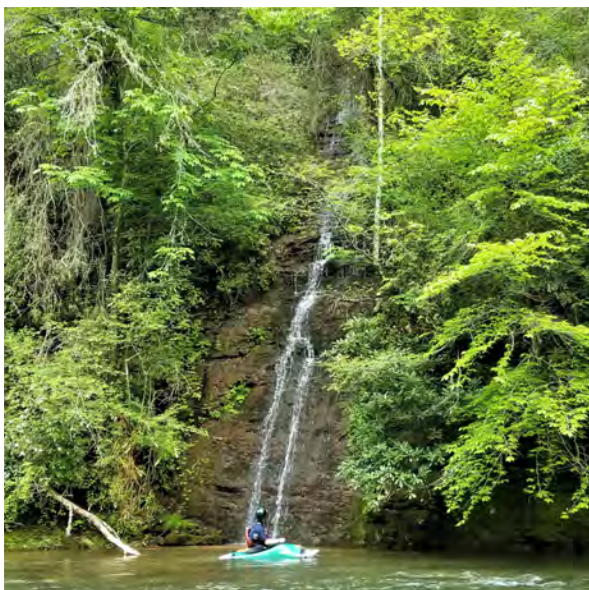
This map was prepared from inventory of real property, recorded deeds, plats, and other public records and data. Users of this map are hereby notified that the public, primary information sources should be consulted for verification of the information contained on this map. The County and mapping company assume no legal responsibility for the information contained on this map.

MILLS RIVER VALLEY TRAIL

The Town of Mills River is currently engaging in the preliminary engineering needed for the construction of a greenway that will connect their Town Hall to the French Broad River. An NCDOT multi-use trail project along Hwy 191 will connect to the Mills River Valley Trail at the intersection of Hwy 191 and Hwy 280.

GREEN RIVER GAME LAND

A destination greenway from the Village of Flat Rock to the Green River Game Land would benefit many Henderson County residents and would provide greenway access to residents in the southern part of the county. The Green River Game Land contains 14,331 acres and lies along the Blue Ridge Escarpment in Henderson and Polk counties. The game land is owned by the State and is a popular destination for hunters, fishermen, and wildlife watchers in addition to outdoor recreational enthusiasts such as hikers, kayakers, swimmers, and tubers.



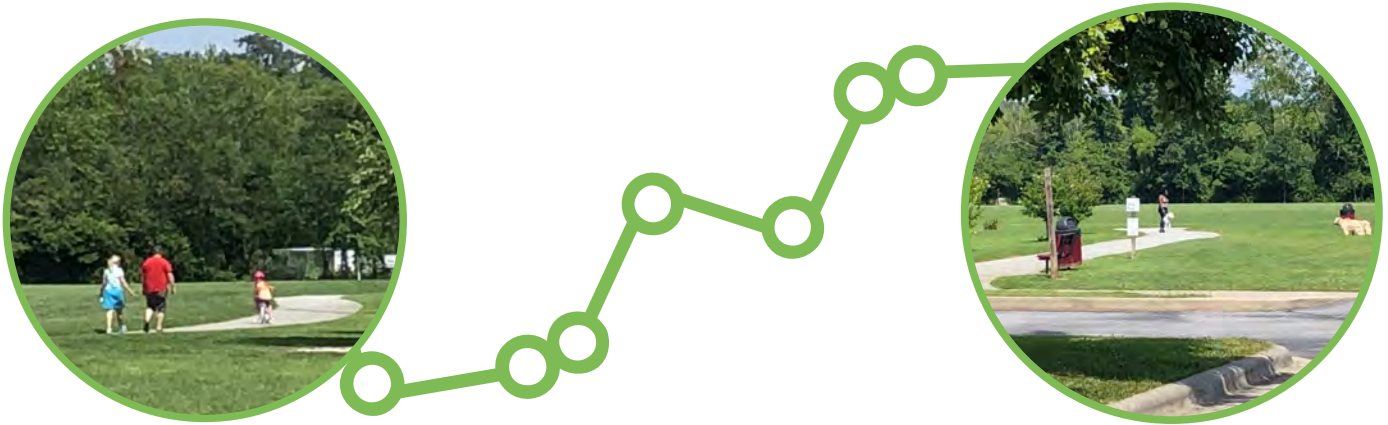
COMMUNITY OF EDNEYVILLE

The Edneyville Community Plan identified numerous recommendations for greenway inclusion and creation in the area. Edneyville is home to many county-wide attractions including, but not limited to, various farms, vineyards, apple orchards, the Edneyville Community Center, North Henderson High School, and the North Carolina Justice Academy's West Campus. The County is evaluating plans to extend sewer service to the Justice Academy in the near future, which could also accommodate a greenway. The City of Hendersonville has already acquired easements along Clear Creek from Carolina Village to the interstate and along Allen Branch south toward Walmart. According to their adopted 2030 Comprehensive Plan, the City plans to build a greenway within their easements, which could aid the County in connecting to Edneyville.



TOWN OF FLETCHER GREENWAYS

The Town of Fletcher finished their greenway master plan almost ten years ago. Since that time, the Town has built almost four miles of trails, which are mostly concentrated around the well frequented Bill Moore Community Park. The Town's master plan includes two other main greenway connections: the Meritor Greenway and the Hooper's Creek Greenway. Both of these greenways would extend from the existing Cane Creek Greenway and be built along the southern boundary of the town. The western extension, the Meritor Greenway, would connect to Westfeldt Park. A connection of the Oklawaha Greenway at Westfeldt Park and to the Meritor Greenway would create needed access to the Town of Fletcher.



VILLAGE OF FLAT ROCK - CARL SANDBURG HOME GREENWAY

The Carl Sandburg Home is a treasure to Henderson County. The home is a national historic site, located in the village of Flat Rock, which preserves Connemara, the home of Pulitzer Prize-winning poet and writer Carl Sandburg. The Village of Flat Rock has recently undertaken a feasibility study to construct a greenway to connect the Park at Flat Rock to the Carl Sandburg Home. If the Village creates this connection, it would present an opportunity for the County to connect a greenway to its southern residents. As an identified destination, the County plans to connect the Oklawaha Greenway to the Park at Flat Rock, so that County residents can enjoy alternative transportation and easily travel to both frequented destinations.



2.4 CONNECTION GREENWAYS

Connection Greenways will be extensions of either the Priority Greenways or Destination Greenways. Connection Greenways are meant to be direct routes that can be utilized for commuting as well as recreation. These greenway offshoots will likely grow over time through logical connections to desirable locations. As opportunities arise, the County should consider extending the greenway network to specific destinations. The Greenway Master Plan Committee identified two Connection Greenways: a connection to Advent Health Hendersonville and Livingston Farms as well as a connection that creates a municipal loop. Other potential connections include public and private schools, parks, bus and transit stops, historical sites, and other community hubs.

MUNICIPAL INNER LOOP

Within the center of the County are three municipalities: the City of Hendersonville, the Town of Laurel Park, and the Village of Flat Rock. In Hendersonville, there exists approximately 3.75 miles of the Oklawaha Greenway. The County is considering the extension of that greenway to the north and south. The southern extension would connect to the Village of Flat Rock's planned greenway that connects the Park at Flat Rock to the Carl Sandburg Home.

In collaboration with the planned greenways, a municipal inner loop greenway is possible. A municipal inner loop greenway can connect communities, breaking down real and perceived barriers like highways, rivers, city limits, or neighborhood boundaries. The loop, which has not yet been designed, would connect all three municipalities located in the heart of the County. The loop would provide a connection to the natural, cultural, and historical resources within the three municipalities.

Destinations could include Jump Off Rock in Laurel Park, the historic district in "The Little Charleston of the Mountains" (aka Flat Rock), as well as connect the restaurants, shopping, parks, and other attractions of downtown Hendersonville. By connecting to popular destinations, the Municipal Inner Loop would further the Greenway Network's connectivity and would promote alternative transportation for residents and visitors alike.



CONNECTION GREENWAYS TO HEALTH AND WELLNESS DESTINATIONS

CONNECTION TO PARDEE HOSPITAL AND HEALTH AND WELLNESS DISTRICT:

Within the municipal inner loop, county population density is most concentrated and Henderson County's two largest employers, Henderson County Public Schools and Pardee Hospital are located there. Because of this, a greenway connection to this area would be feasible in relation to the Municipal Inner Loop as well as through opportunities presented by NCDOT projects within the City. There are also critical health and wellness centers within this proposed Municipal Inner Loop like the Health Department as well as the YMCA, Blue Ridge Health, Pardee Hospital, and the Health Sciences Center, which together form a Health and Wellness District. Through connecting existing and future greenways to this district, benefits to health and wellness along with greenway usage are maximized by placing trails where people live, work, and study. The ease of access for employers, schools, health and wellness efforts, and the majority of Henderson County residents found in the Municipal Inner Loop will encourage even more usage and benefits for more people.

ADVENT HEALTH HENDERSONVILLE & LIVINGSTON FARMS:

The Henderson County Greenway Master Plan Committee identified Advent Health Hendersonville (formerly Park Ridge Hospital) as a desirable destination greenway within the County. The hospital is in close proximity to Park Ridge Home Health, the Lelia Patterson Center, Fletcher Academy and Fletcher Seventh-day Adventist Church. All of these destinations act as a community hub for activity in this area of the County. This connection would further promote the hospital's focus on "improving the health of the community it serves" (Adventist Health System website).

The Committee also recognized the opportunity to extend this greenway to other areas, including the Livingston Farms neighborhood, since it is another desirable destination within the county. Both the hospital and the neighborhood are located east of I-26. It is possible to create a greenway connection across the interstate by way of Naples Road overpass. This overpass, as well as other roads, is slated to be reconstructed to accommodate the I-26 widening project and greenway creation could work as a joint effort between the County and NCDOT when this occurs to satisfy the mandated provision of safe pedestrian access.

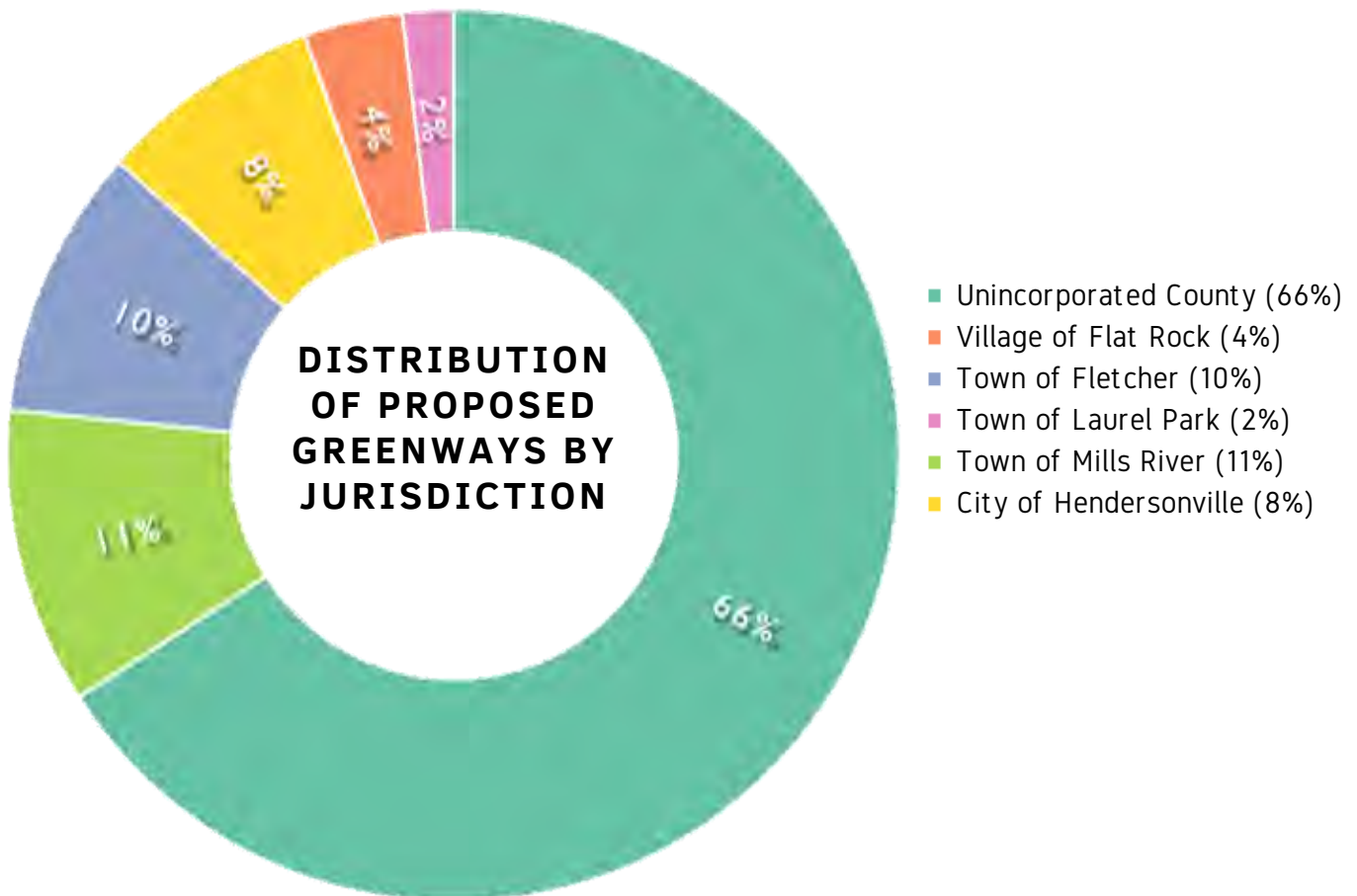


SUMMARY OF PROPOSED PRIORITY GREENWAYS, DESTINATION GREENWAYS, & CONNECTION GREENWAYS

There are approximately eight miles of greenways in the county to date. This master plan's proposed trails, Priority Greenways and Destination Greenways, would add about 71 miles of trails for a total of almost 80 miles. That equates to over ten times the existing trail length!

As shown in the pie chart below, the majority of proposed trails will be located in unincorporated areas of the County, which is realistic and reasonable because this master plan is a plan for the Henderson County government. The Towns of Mills River and Fletcher will each have about 10% of the overall proposed trails since both municipalities have their own plans for greenway implementation.

Trails and greenways positively impact individuals and improve communities by providing not only recreation and transportation opportunities, but also by influencing economic and community development. Through the development of greenways into a connected and comprehensive network, all residents of Henderson County can experience an enhanced quality of life.



*Data is based upon estimated trail locations and do not reflect actual trail locations.

2.5 REGIONAL CONNECTION OPPORTUNITIES

The Fonta Flora State Trail

The Fonta Flora State Trail is a multi-section trail that will eventually span from downtown Morganton to downtown Asheville. 20 miles of the 30 mile loop that encircles Lake James is complete and is maintained by the NC State Parks Division. Burke County is currently working with the state to extend the trail from Lake James to the City of Marion. The Fonta Flora State Trail will also tie into the Town of Black Mountain's greenway system that currently has approximately 1.5 miles of trail and plans to extend the greenway by a mile, which will connect the gap between their two existing greenways. Henderson County could eventually connect to this trail via the French Broad Greenway, which will connect to the greenway of the same name in Buncombe County.

“The Hellbender” Regional Trail

The French Broad River Metropolitan Planning Organization (FBRMPO) is working with municipal and county governments to develop a regional plan for greenway and trail connections that would incorporate locally adopted plans and policies. The regional trail is named for a native, endangered salamander species, the Hellbender, which is colloquially known as a 'mud dog'. The Ecusta Trail, the Mills River Valley Trail, and the Oklawaha Greenway would be included in the plan as part of Henderson County connections to adjacent counties. Continuing to work with FBRMPO staff on this plan will help Henderson County focus their greenway efforts and gain legitimacy necessary for potential funding sources.

Buncombe County

Buncombe County Comprehensive Greenway & Trails Master Plan, developed in 2012, is meant to guide all future greenway development in Buncombe County. Their goal is to link existing and proposed greenways together to create a cohesive network for recreation and active transportation. Many of the County's municipalities are engaging in their own greenway efforts, notably the Town of Woodfin, which is currently planning a 5 mile greenway.

City of Asheville

Asheville's 2013 Parks, Recreation, Cultural Arts and Greenways Master Plan classifies greenways as “High” and “Medium” priority depending on the scale of connectivity they provide, land availability, availability of funds, and construction feasibility. Presently, most of the City's greenways are situated along stream, creek, and river corridors although mountain-side and forested corridors will eventually be added to the mix.

Transylvania County

Transylvania County is currently working with a consultant to create a comprehensive bike plan. Their goals are to identify potential locations for more paved paths to connect neighborhoods and outlying communities to the existing path in Brevard as well as to develop more safe places for bicyclists to ride. The county currently plans to create a greenway along Hwy 280 ending at the Henderson County border. This would be a potential opportunity for Henderson County to make a regional connection.

City of Brevard

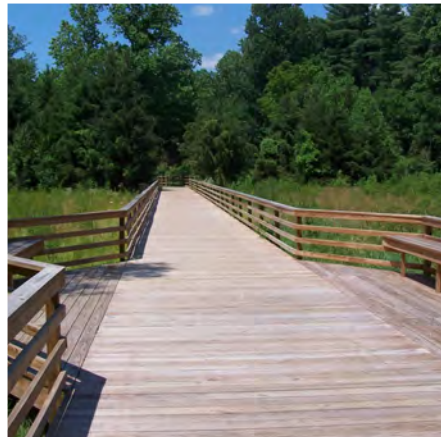
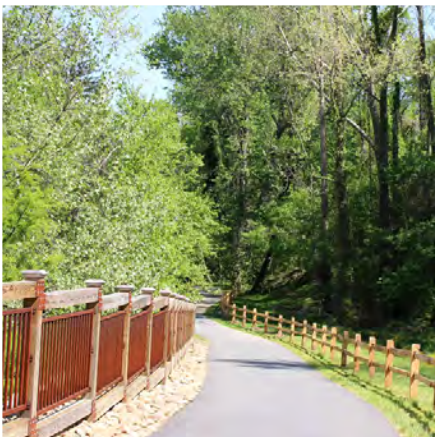
The Brevard Greenway offers 6 miles of paved greenway connecting Pisgah National Forest to downtown Brevard. A separate one-mile section connects Brevard Elementary, Brevard High School, and the Cindy Platt Boys and Girls Club of Transylvania County. An additional 3-5 miles of greenways was recommended in the 2016 adopted plan, Transylvania County/City of Brevard Parks & Recreation Master Plan.

City of Saluda

In conjunction with NCDOT Division of Bicycle and Pedestrian Transportation, the City of Saluda examined their current bike/ped facilities and infrastructure and garnered community support for implementing infrastructure projects as well as policies, ordinances, and programs. Henderson County could connect the potential Destination Greenway that would lead to the Green River Game Land to any greenway or trail that Saluda may build.

Town of Lake Lure

In the Town's Parks, Recreation, Trails & Open Space Plan, linking the Town's facilities with sidewalks, bikeways, greenways, and rails to trails is listed as a medium priority. The Town recognizes their lack of bike/ped facilities and plans to create these connections in the near future.



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A photograph of the Henderson County Courthouse, featuring a prominent gold dome and classical columns. The text 'HENDERSON COUNTY' is visible on the facade. The image is overlaid with a semi-transparent green filter.

RECOMMENDATIONS & IMPLEMENTATION

3.1 Policy Recommendations

3.2 Action Steps

3.3 Funding Considerations and Cost Estimates

3.4 Acquisition Strategies

RECOMMENDATIONS & IMPLEMENTATION INTRODUCTION

This chapter provides the Recommendations, Action Steps, Acquisition Strategies, and Cost Estimates and Funding Considerations needed for implementing this plan. This chapter also considers current planning activities, recommendations from previous plans, and suggestions from the Greenway Master Plan Committee meetings.

3.1 POLICY RECOMMENDATIONS

These policy recommendations build upon the analysis of existing conditions and current plans. Implementing the recommendations within this Greenway Master Plan will require leadership on the part of Henderson County, a dedication to trail development, access to funding, and a partnership between the County, area governments, non-profit organizations, and private entities.



- Greenways should be recognized in County policies as a tool to build communities, promote health benefits, provide outdoor education opportunities, encourage a sense of safety and awareness of the surrounding neighborhoods and properties, provide transportation connectivity, and provide a safe place for our future generations to walk, bike, and explore our natural environment.
- The County should determine a policy to incorporate the use of existing and future utility easements for public use greenways.

The County should adopt a similar policy as the Mountain to Sea Trail to explore alternative options to work around uninterested property owners such as the use of NCDOT roads, bike lanes, sidewalks, etc.

The County should work with non-profits, the Partnership for Health, the Council on Aging, and other partners to educate the public and property owners about the benefits of greenways as a health and wellness goal.

The County should request that NCDOT reconsider its policy on bike/ped projects related to required local match requirements. Many local governments cannot provide the required funding match.

The County should work with the NC Office of Outdoor Recreation Industry to further develop outdoor recreation in Henderson County and the region with a focus on the Greenway Network.

The County should consider adopting a Greenway Overlay District in the Land Development Code that would primarily apply to the identified Priority Greenways.

When appropriate, the County should work with the Henderson County Board of Public Education and local school representatives to connect schools with greenway opportunities.

The County should strive to connect greenways to existing public transportation facilities.

The Transportation Advisory Committee (TAC) should support the greenway network by seeking the advancement of projects and funding in the State Transportation Improvement Program (STIP) when local matching funds are available.

Economic development opportunities should be supported and encouraged along identified greenway corridors.



3.2 ACTION STEPS

This section is the blueprint for implementation of the Greenway Master Plan. There are seven main action steps that this plan suggests Henderson County perform. Within these steps, there are further recommendations to give the County clear guidance on the creation of a future 70-mile greenway network. The action steps implemented, and the order they are implemented, will depend on the circumstances of individual situations and should be reviewed as needed by the County and relevant stakeholders.

ADOPT THE PLAN

COMPLETE PRIORITY GREENWAY SEGMENTS

EXPLORE FEASIBILITY OF
DESTINATION AND CONNECTION GREENWAYS

IDENTIFY FUNDING AND
COMMUNITY PARTNERSHIPS

EVALUATE GREENWAY EASEMENT OPTIONS




DESIGN AND CONSTRUCT TRAILS

MAINTAIN TRAILS




ADOPT THE PLAN

- The previously adopted community plans and future community plan efforts should be used to explore locations and needs for the County's Priority and Destination Greenways.
- The County should consider establishing a greenway board to implement the Master Plan and feasibility studies.
- The County should continue to seek public participation, including public information sessions, while implementing various plan recommendations.
- The County should publish a website dedicated to this Master Plan and include an interactive map to encourage greater public input.





COMPLETE PRIORITY GREENWAY SEGMENTS

-  Priority Greenways, as identified in the Master Plan (Section 2.2), should be considered first for construction to create regional connections.
-  The county's Priority Greenways should be identified and included as part of the regional greenway system for the French Broad River MPO area.
-  The County should work in cooperation with Transylvania County, the City of Brevard, the City of Hendersonville, and the Town of Laurel Park to develop the proposed Ecusta Trail, if it is reasonably determined that the rail line from Hendersonville to Brevard has no viable future rail use. As part of this effort, the County, in conjunction with the above local governments, should consider requesting the State acquire the rail line for the purpose of establishing a greenway. The County and its partners should also review the federal rail banking statute as a means of securing and preserving the line.

EXPLORE FEASIBILITY OF DESTINATION AND CONNECTION GREENWAYS

-  Destination and Connection Greenways, as identified in the Master Plan, should be constructed as funding opportunities become available.
-  The Municipal Inner Loop Greenway should be supported to connect historic Hendersonville, Laurel Park, and the Village of Flat Rock to the Priority and Destination Greenways with health and wellness destinations, local attractions, and businesses.
-  County staff should have the discretion to assess when an area is "ready" for the greenway process. The county should also consider completing formal feasibility studies to aid in this assessment.

IDENTIFY FUNDING AND COMMUNITY PARTNERSHIPS

-  The County should utilize public-private partnerships and work with local business owners, industries, and the Partnership for Health to secure funding to complete the Greenway Network.
-  The County and surrounding municipalities should consider setting aside funding each budget year for greenway development that would be used for grant match and other related funding needs related to the Greenway Network.
-  The County should work with the Tourism Development Authority (TDA) to secure funding for portions of the Greenway Network that will increase tourism and enhance economic development.
-  The County should coordinate with municipalities to seek funding that is only available to municipal governments for the creation of the identified Greenway Network within those municipalities.

EVALUATE GREENWAY EASEMENT OPTIONS

- The County should develop greenways through voluntary negotiations or contributions.
- The County should encourage non-profits and partners to work with local landowners to secure easements and establish a method to receive and hold financial contributions for greenways.
- The County should determine a policy to incorporate the use of existing and future utility easements for public use greenways.

DESIGN & CONSTRUCT TRAILS

- 🔨 The County should coordinate design and construction efforts with other local governments and non-profits for a uniform and consistent Greenway Network.
- 🔨 All greenway construction efforts should be based on a phasing plan as identified in a corresponding feasibility study.
- 🔨 The County should consider phasing greenway construction when necessary if a paved trail cannot be achieved. This could include acquiring easements for a grass walkway or mulch or gravel type surface in order to get a greenway on the ground. Funding for final trail paving could then be achieved later.
- 🔨 The County should work with NCDOT to provide multi-use paths or utilize sidewalks to achieve the overall connection of the greenway network. NCDOT roads and bike routes should connect sections of the greenway network when no other connections are available or for short-term connection solutions.
- 🔨 Appropriate hydraulic modeling should be performed whenever a greenway is to be constructed in a floodplain.
- 🔨 Greenway designs and plans should consider the surrounding environment and minimize adverse effects.
- 🔨 Greenway design should consider not only the greenway itself, but also trail amenities to create a complete, accessible, and comfortable experience for a wide variety of expected users. As the trail network grows, key amenities for longer greenways could include restrooms, lighting, benches, water fountains, and bike repair stations.
- 🔨 The County should work with its partners to establish a regional trail branding and way-finding program. This will help legitimize the network and create a consistent way to market greenways for economic development, community health, and tourism purposes.

MAINTAIN TRAILS

- 🔨 Maintenance of existing greenways should be a priority.
- 🔨 The County should coordinate maintenance efforts with other local governments, non-profits, and partners.

Greenway maintenance is essential to the long-term viability and sustainability of the greenway network. The network should be viewed and maintained as a public resource. This plan recommends a strong, collaborative approach to maintenance.

- 🔨 The County should not only consider low-maintenance greenway designs, but also the most efficient and cost-effective means for maintaining the greenway network.

Options include:

- Contracting a private party that specializes in outdoor facility maintenance
- Creating an inter-governmental agreement with the City of Hendersonville and other municipalities to garner equipment and resources
- Working with non-profits to set-up volunteer maintenance on certain sections when possible
- Establishing a separate fund in the Parks and Recreation budget to cover greenway maintenance costs
- Creating an avenue for greenway users to report maintenance issues specific to the trail. This could be done via a smart phone application, a specific telephone line, or a email address dedicated to the greenway.

- 🔨 A routine maintenance schedule for the greenways should be developed and tracked. Maintenance of trail amenities such as lights and solid waste collection should also be considered.



3.3 FUNDING CONSIDERATIONS AND COST ESTIMATES

Funding is always a moving target and is often dependent upon the economic, fiscal and political climate of the state, the region, the county, and municipal government. Greenway projects such as those outlined in this Master Plan, typically require a variety of funding sources over a number of years. Fortunately, a robust greenway network has the potential to generate return on investment through tourism spending, an increase in the number of small businesses that cater to trail users, and through increasing real estate values. Improved safety for walking and bicycling will also reduce economic losses and health care costs related to crashes, as well as health care costs resulting from obesity-related diseases.


The availability of sustainable funding will be a critical factor in the implementation of this Master Plan. Communities across the state that have successfully engaged in trail programs have increasingly relied on multiple funding sources to achieve their programmatic goals. The same will be required within Henderson County. The County will need to work cooperatively with its municipalities, as well as with state and federal partners to generate funds sufficient to implement the Greenway Network. There are a number of funding opportunities available at all levels of government and within the community to offset taxpayer costs. Henderson County and its municipalities should seek a combination of funding sources that include local, state, federal, and private money. The County should also develop its own local sources of funding. These sources can then be used to leverage outside assistance.



“Investments in trails, bike lanes, and bicycle-sharing systems have high levels of return on investment.

Regions and cities have found that relatively small investments in active transportation can have outsized economic returns due to improved health and environmental outcomes and reduced negative externalities, such as automobile traffic congestion and poor air quality.”

~ Urban Land Institute,
“Active Transportation and Real Estate”



FUNDING CONSIDERATIONS

Most federal programs provide block grants directly to states through funding formulas. For example, if a North Carolina community wants funding to support a transportation initiative, they would contact the North Carolina Department of Transportation and not the US Department of Transportation to obtain a grant. The most direct source of public-sector funding for municipalities in Henderson County, and the County itself, will come from state agencies. Generally, these funds are made available to local governments based on grant-in-aid formulas administered by the French Broad River Metropolitan Planning Organization (FBRMPO). The single most important key to obtaining state grant funding is to have adopted plans for greenway, bicycle, pedestrian, or trail systems in place prior to making an application for funding.

The County should leverage funds to help achieve other County goals including water quality, hazard mitigation, parks and recreation, alternative transportation, wildlife protection, community health, and economic development. Fortunately, the benefits of protected greenways are many and varied. Due to mutual goals, other programs and departments in Henderson County may access money earmarked for a variety of purposes that may also include greenway construction or maintenance.

Greenways specifically address the issues that Henderson County's Partnership for Health work to tackle. The Public Health Department published the most recent Community Health Assessment in 2015.

A Community Health Assessment (CHA) identifies factors that affect the health of a population and determines the resources within the community to address these factors. The CHA identified reducing obesity as a health priority for Henderson County. Obesity is largely related to lifestyle choices. The CHA recognizes the County's limited access to safe walking and biking areas as a contributing factor. The proposed Greenway Network will create that access and may reduce obesity and obesity-related illnesses within the County.

In addition to government funding, the County could receive funding from non-profits and private organizations. The Town of Woodfin and the Henderson County Tourism Development Authority are both examples of creative approaches to greenway funding.

"THE SINGLE MOST IMPORTANT KEY TO OBTAINING STATE GRANT FUNDING IS TO HAVE ADOPTED PLANS FOR GREENWAY, BICYCLE, PEDESTRIAN OR, TRAIL SYSTEMS IN PLACE PRIOR TO MAKING AN APPLICATION FOR FUNDING."

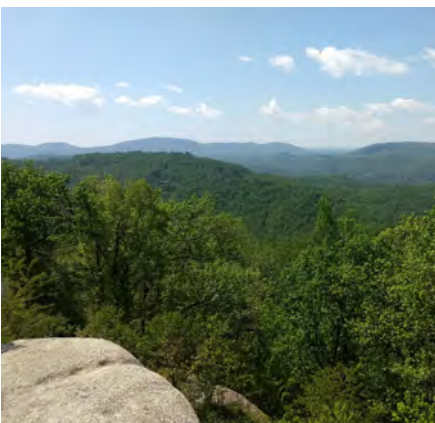
LOCAL EXAMPLES:

THE TOWN OF WOODFIN, NC

Municipal and County elected officials are often concerned about the prospective 'cost burden' of greenways. The Town of Woodfin chose to use a bond that provided 'all at once financing in generous amounts'. With this initial, substantial commitment, they formed a 'funding partnership' to leverage other funds. The Town of Woodfin was successful in funding a substantial project without extensive commitment from a single entity. This approach is a possible method, but it may not be appropriate for Henderson County.

HENDERSON COUNTY TOURISM DEVELOPMENT AUTHORITY

Henderson County Tourism Development Authority (TDA) was established through North Carolina legislation to oversee the expenditure of occupancy taxes collected for the purpose of promoting Henderson County as a travel destination. Due to growth in the local tourism industry and an aggressive marketing strategy, TDA has increased its reserve funds. Although much of the funds are earmarked for specific purposes, excess revenues are available for tourism related product development. These excess funds enable the TDA Board to financially support tourism projects as investments back into the Henderson County's tourism industry and local economy. In 2014, the TDA Board set aside a percentage of the annual occupancy collections for a five-year period to be allocated toward the Ecusta Trail. This method of fundraising for greenways should be continued to help the County construct the Greenway Network.



COMPARABLE COSTS

The examples below provide estimated costs of greenway construction. These figures and considerations may be used to generate planning level costs to inform future trail efforts. An inflation factor should also be applied to final cost figures based on anticipated construction year. Costs include clearing and grubbing, base preparation and materials, and minor earthwork. It is important to keep in mind that costs to build each greenway will vary depending on material selection, design width and depth, topography, and environmental setting. For example, trails built adjacent to rivers/streams may be more expensive due to the need for boardwalks, bridges, or earthwork services. Property procurement, design, engineering, and permitting fees will also be required.

Although the County should consider other surface types for the greenways, the desirable outcome is for all finished County greenways to be compliant with Americans with Disabilities Act (ADA) standards. Phasing construction of greenways may leave some as natural surfaces until asphalt can be installed, but most federal money requires greenways and trails to be ADA compliant.

CITY OF HENDERSONVILLE: OKLAWAHA GREENWAY

In 2016, the City of Hendersonville extended the Oklawaha Greenway from Patton Park to Berkeley Mills Park, an approximately 1.6 mile section. The total cost of construction was approximately \$1.1 million. This phase of the Oklawaha Greenway included landscaping, signage, recycling and trash bins, pet waste stations, bicycle racks, fencing, lighting, and other trail amenities. Land acquisition is not included in this estimate because the City obtained easements for the greenway in tandem with sewer easements for a planned extension.

CITY OF ASHEVILLE: FRENCH BROAD RIVER GREENWAY

The City of Asheville plans to construct the French Broad River West Bank greenway in 2019. This section will close the gap between the half-mile section of the greenway on New Belgium's property at Craven Street and the French Broad River Park. Once completed, this project will be 1.02 miles long. The construction portion of the project was bid at approximately \$5,000,000, which includes the indigenous edible plants information feature as well as the edible gardens. This greenway has the nickname "The Edible Mile." This cost figure is significantly higher, but it includes the construction of multiple, tall retaining walls that are structurally necessary in low-lying areas.

BUNCOMBE COUNTY: NC 251/RIVERSIDE DRIVE GREENWAY

In Buncombe County's feasibility study of the NC 251/Riverside Drive Greenway published in 2017, the estimated costs for 1.6 miles of greenway along the riverfront was over \$2.8 million. The County's estimated right-of-way acquisition costs for that segment totalled over \$1.7 million and thus accounted for over half of the overall costs. This cost estimate is beneficial when considering the construction of one of the Priority Greenways, French Broad River Greenway, which would eventually connect to Buncombe County's NC 251/Riverside Drive Greenway. Note that Henderson County's right-of-way costs may be slightly lower due to the market-value for property in the area.

3.4 PROCUREMENT STRATEGIES

A consistent approach to the procurement of public land and easements is important for the creation and preservation of greenway corridors and trails. The County should be prepared to sustain a long-range land acquisition program until the goals of the greenway program have been met.

It is important to keep in mind that land procurement priorities do not necessarily coincide with trail construction priorities. For example, land may be acquired in fragments as opportunities present themselves. It may take years to acquire a complete corridor. Trail construction might proceed in small pieces as the land is acquired or it may occur as one large project once the entire corridor is secured.

- ◆ As resources permit, priority projects should be pursued strategically to address unique area needs and opportunities and ensure fairness and responsiveness to the public.
- ◆ The County should only seek procurement of land and right-of-ways from willing sellers to assemble sites and corridors. As a consequence, it must respond to critical linkage opportunities and be flexible in addressing the needs of sellers and partners.
- ◆ The County should strategically evaluate land use opportunities and utility and transportation services in deciding whether to acquire property rights.
- ◆ The County should seek grants and contributions of cash as well as land and construction services.
- ◆ The County should work with non-profit land protection agencies, land trusts, or environmental organizations when attempting to acquire or manage property.

METHODS OF PROCUREMENT

Fee Simple:

Fee simple ownership is the full title to the land and the entire “bundle” of property rights including the right to possess land, to use land, or to sell land. A greenway system manager may obtain property outright through purchase, donation, or a combination of the two called a bargain purchase in which the land is sold for less than the full market value. The land can also be sold or donated through installments where multiple payments are made in different years, which may provide tax benefits to the landowner.

Option:

An option agreement provides that the owner will sell the property at some agreed upon time in the future. An option does not commit the greenway manager to buy the property, but it does commit the owner to sell if the greenway manager chooses to buy.

Right of First Refusal:

An agreement where the landowner commits to make the greenway manager aware when the property will be put up for sale and gives the greenway manager the right to purchase the property before it is made available to others. It does not commit the landowner to sell the property nor the greenway manager to buy it.

Easement:

A legal agreement between a landowner and a third-party, usually a nonprofit or government agency, that permanently provides for construction and maintenance of a greenway through the landowner's property and for the public's right to use the greenway. Full title to the land is not conveyed, only the specific property rights granted in the easement agreement, therefore, the easement value is less than the full property value. A greenway easement is similar to easements for utilities.

Remainder Interest / Life Estate:

A landowner may sell or donate the land, but retain the right for the landowner or other specific people to live on or otherwise use the property during their lifetimes.

Donation:

This is an option for a property owner to donate an easement or property for greenway purposes. Property or easement donations would qualify for tax benefits.

Purchase / Lease Back:

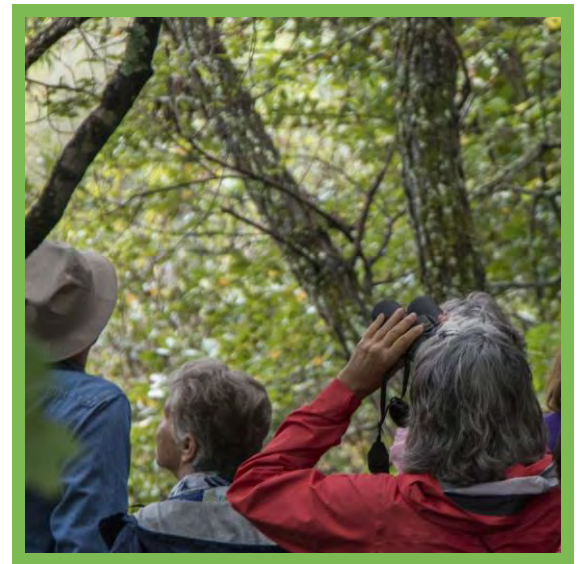
Land can be sold or donated well in advance of its need for a greenway. In these situations it may be possible to lease or rent the land back to its previous owner until it is needed.

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APPENDIX

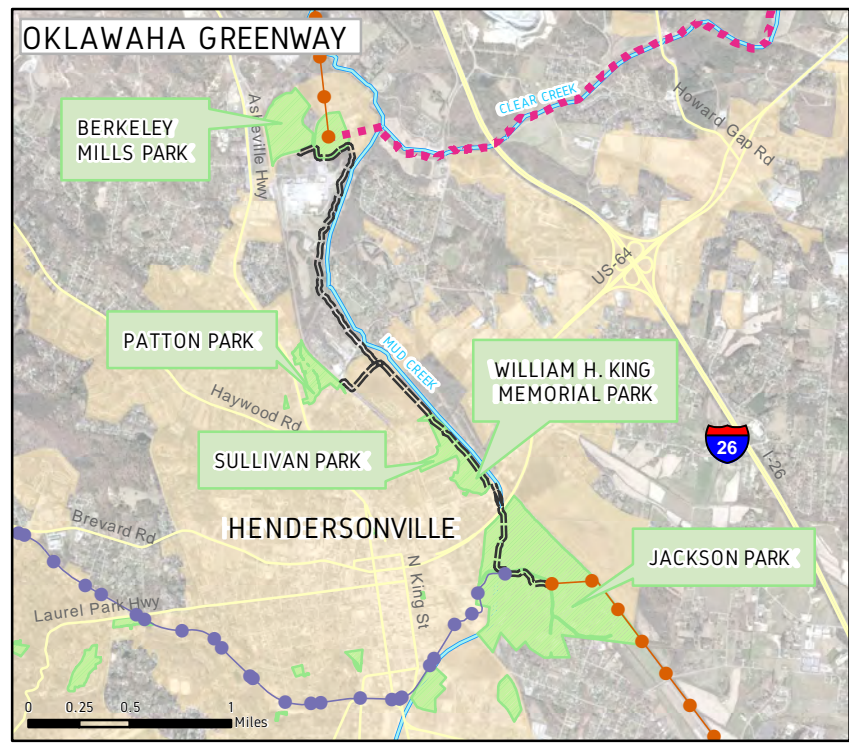
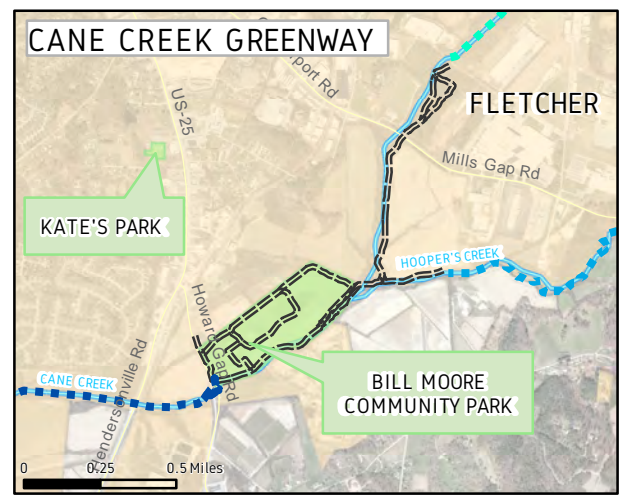
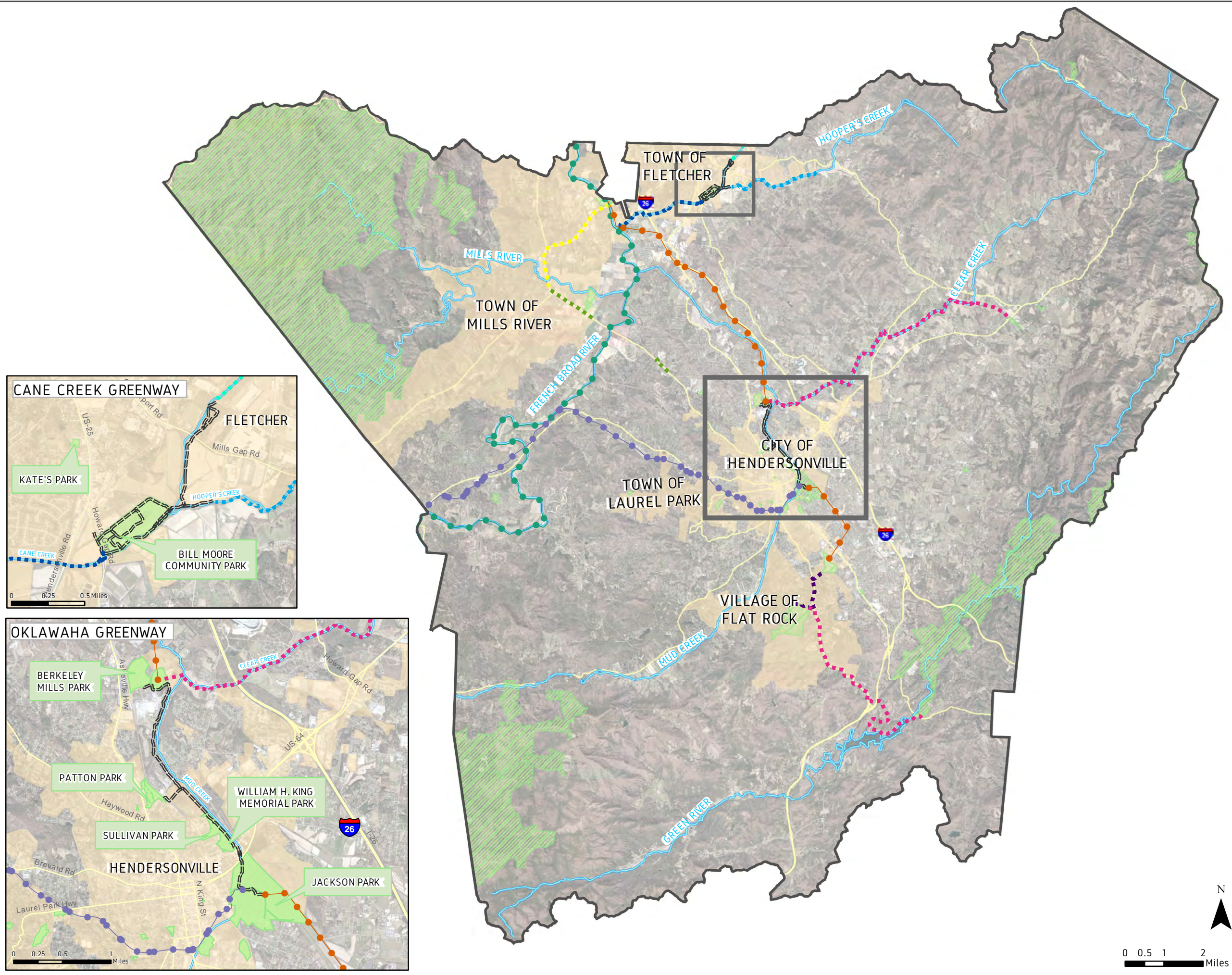
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PROPOSED GREENWAY NETWORK OVERVIEW

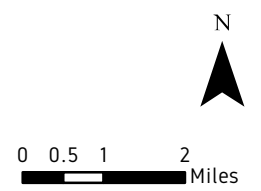


- Priority Greenways:
- Ecusta Trail
 - French Broad Greenway
 - Oklawaha Greenway
- Greenways:
- Existing Greenways
 - NCDOT Multi-Use Paths*
 - Cane Creek Greenway
 - Hooper's Creek Greenway
 - Meritor Greenway
 - Destination Greenways
 - Mills River Valley Trail
 - Flat Rock Greenway
- Elements:
- Parks**
 - Major Rivers/Streams
 - Major Roads
 - County Boundary

*Multi-Use Paths are to be constructed as part of the Hwy 191 widening project.
 **Parks include county parks, city parks, state parks/forests, and national parks/forests.

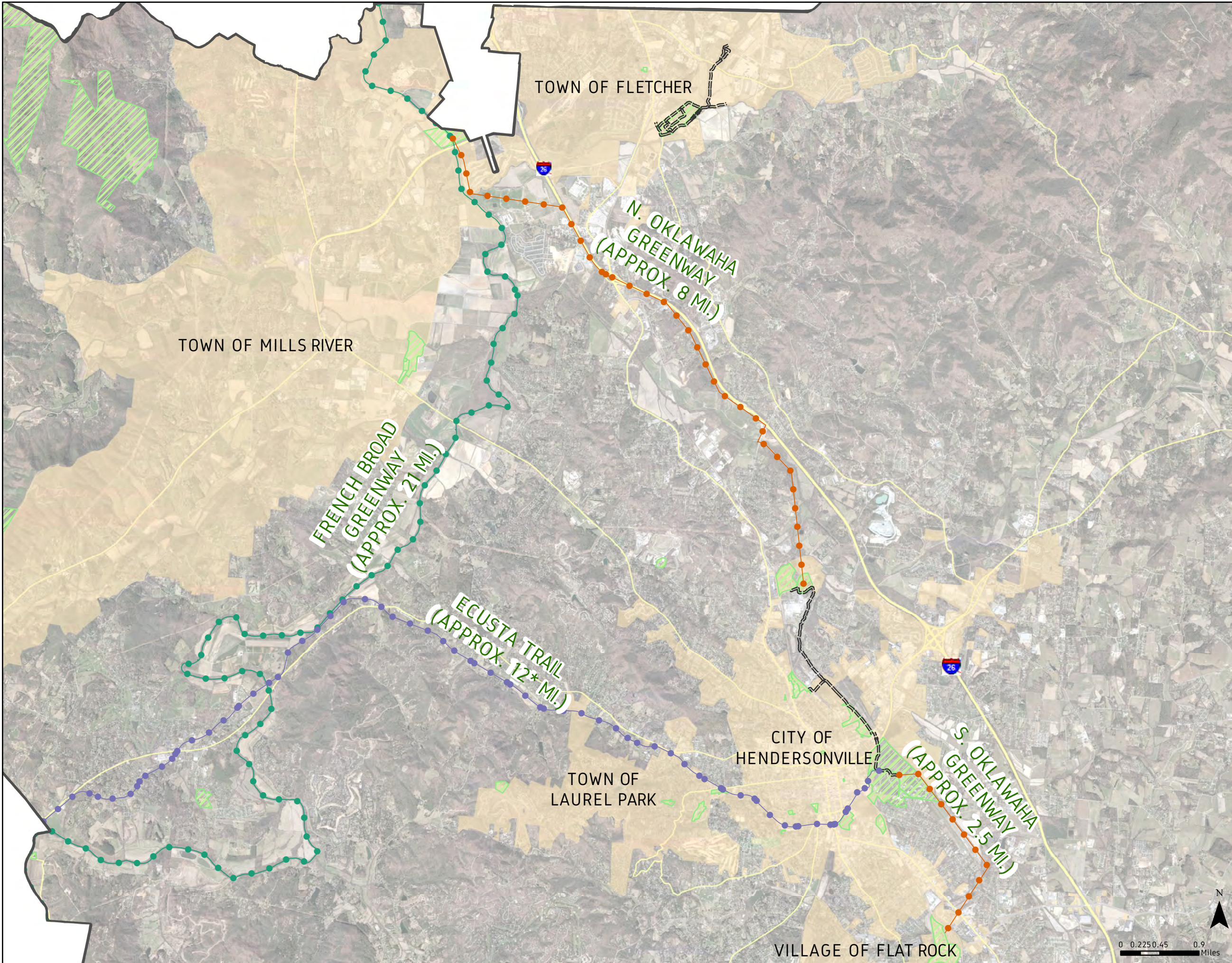
Please note that all greenways delineated in this map are representative of desirable locations to make greenway connections. The mapped lines of non-existing greenways are theoretical in nature.

This map was prepared from inventory of real property, recorded deeds, plats, and other public records and data. Users of this map are hereby notified that the public, primary information sources should be consulted for verification of the information contained on this map. The County and mapping company assume no legal responsibility for the information contained on this map.





PRIORITY GREENWAYS



Priority Greenways:

- Ecusta Trail
- French Broad Greenway
- Oklawaha Greenway

Greenways:

- Existing Greenways

Elements:

- Parks
- Major Roads
- County Boundary

*The approximate mileage for the Ecusta Trail only includes what is proposed for Henderson County.
 **Parks include county parks, city parks, state parks/forests, and national parks/forests.

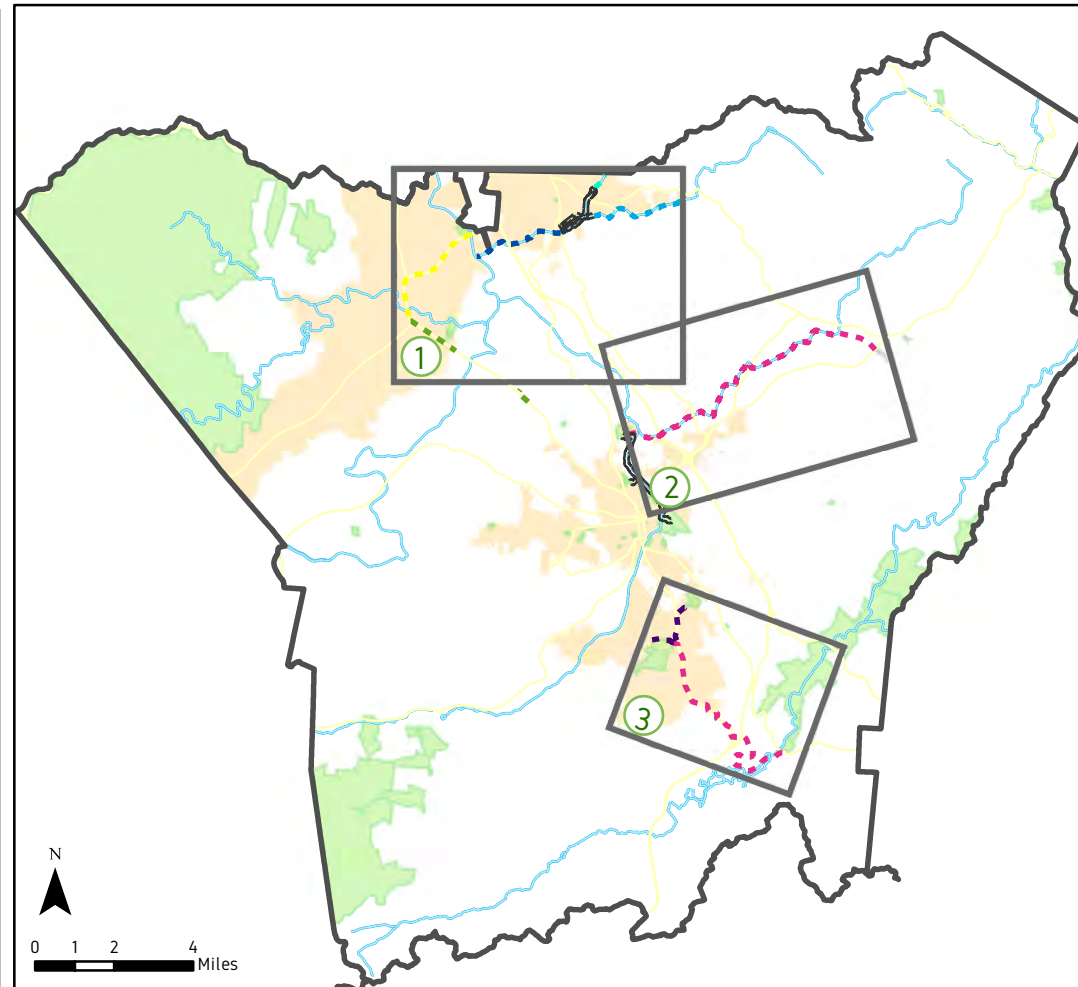
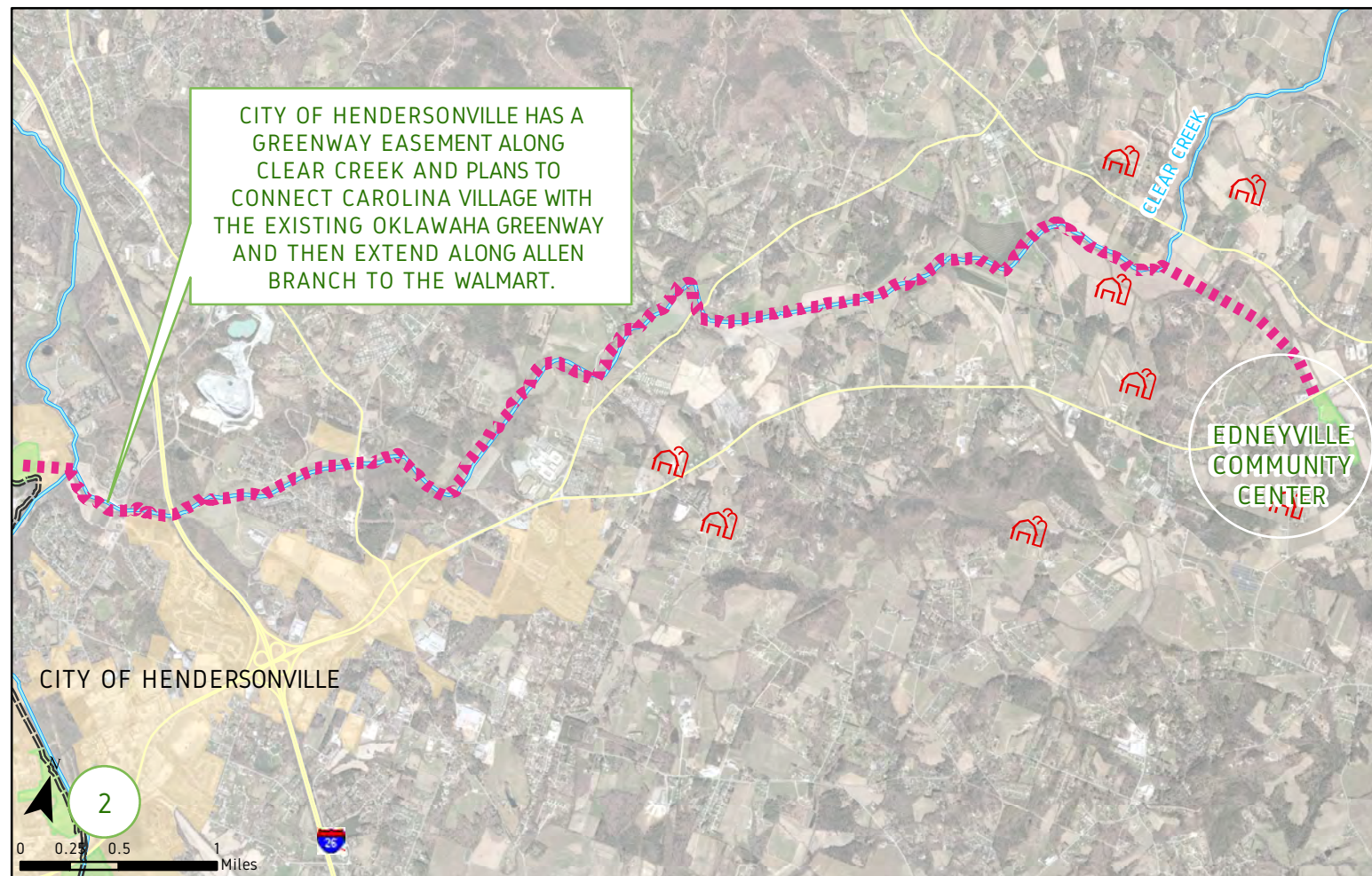
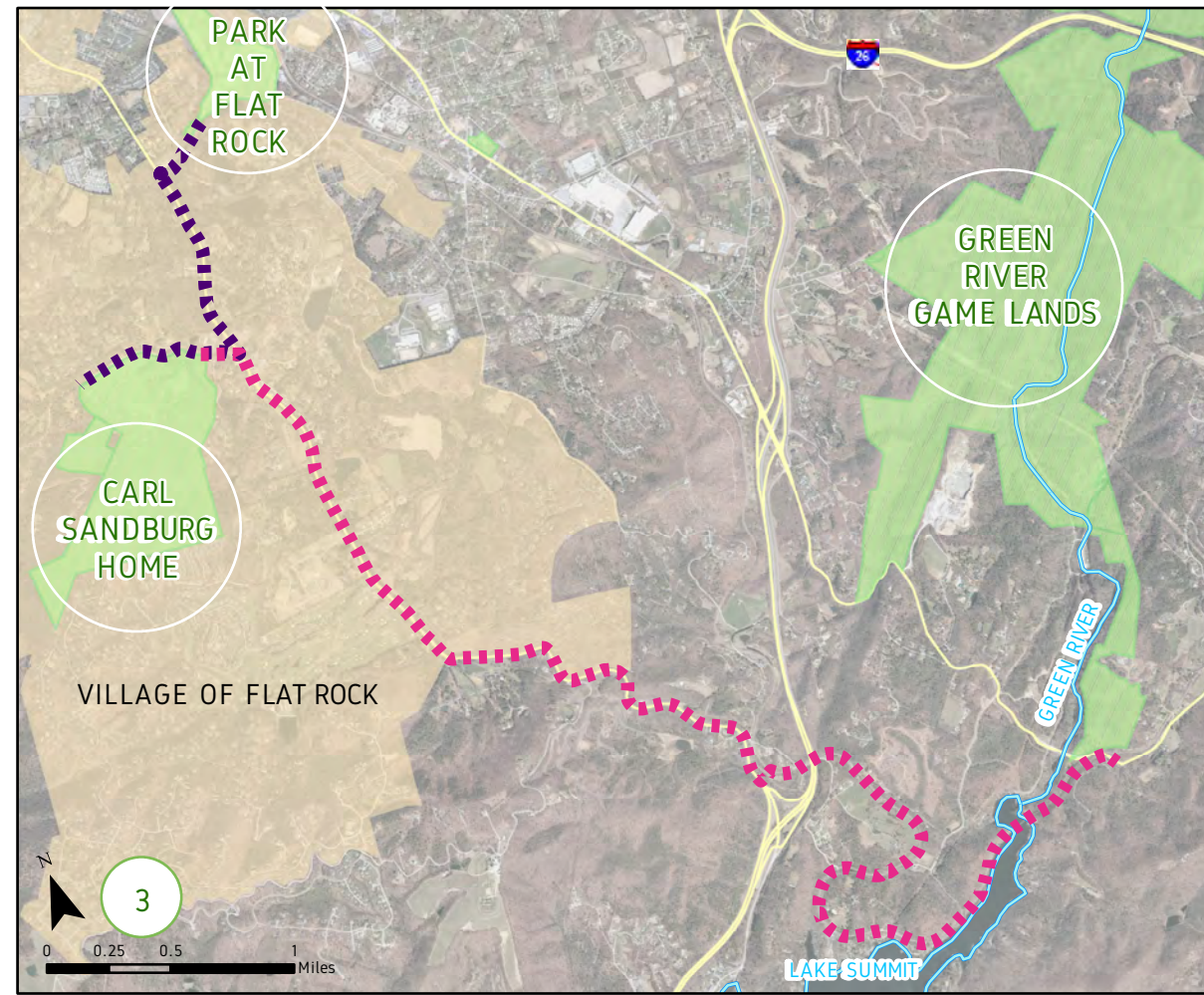
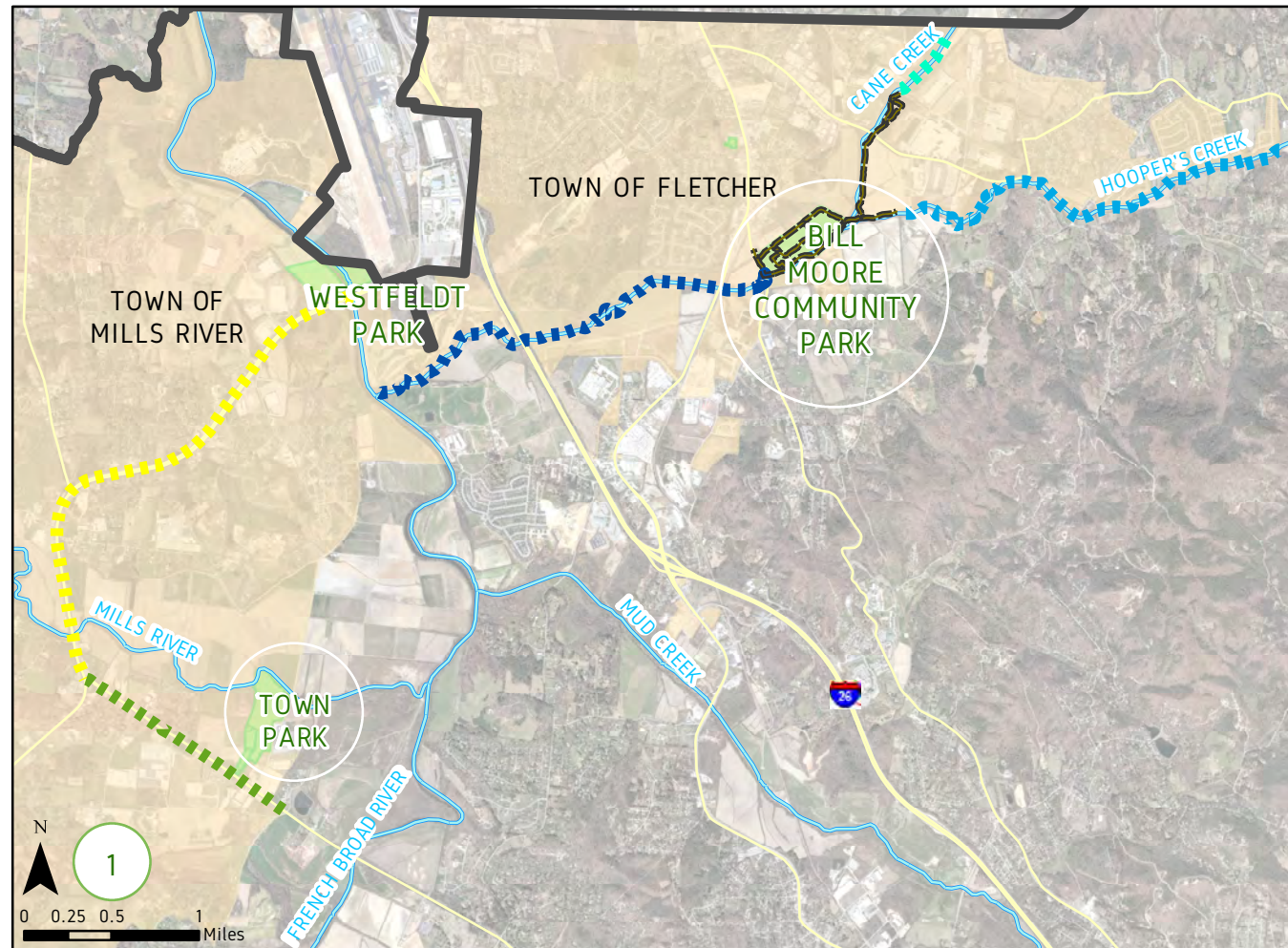
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PROPOSED DESTINATION GREENWAYS



Greenways:

- ==== Existing Greenways
- Destination Greenways
- NCDOT Multi-Use Paths*
- Mills River Valley Trail
- Flat Rock Greenway
- Cane Creek Greenway
- Hooper's Creek Greenway
- Meritor Greenway

Elements:

- Parks**
- Farms***
- Major Roads
- Major Rivers/Streams
- Municipalities
- County Boundary

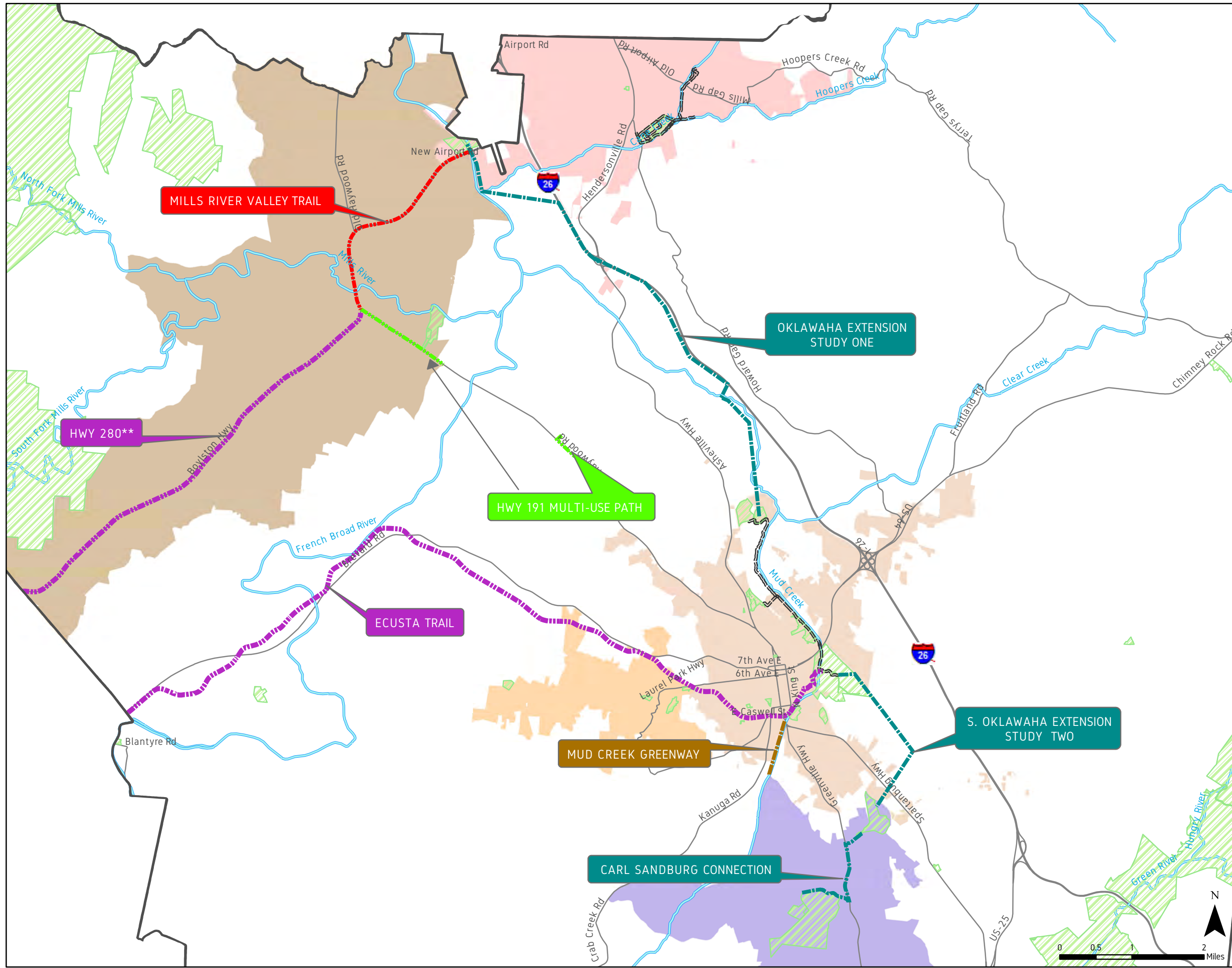
*Multi-Use Paths are to be constructed as part of the Hwy 191 widening project.
 **Parks include county parks, city parks, state parks/forests, and national parks/forests.
 ***Farms are a representation of popular farms and orchards that are accessible to the public. Not all farms are captured in this map. All locations are approximate.

Please note that all greenways delineated in this map are representative of desirable locations to make greenway connections. The mapped lines of non-existing greenways are theoretical in nature.

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STATUS OF FEASIBILITY STUDIES IN THE AREA



CURRENT STATUS:

- - - - - PRELIMINARY ENGINEERING
- - - - - UNDERWAY
- - - - - FUNDED
- - - - - NCDOT PRECONSTRUCTION
- - - - - COMPLETED

MUNICIPALITIES:

- VILLAGE OF FLAT ROCK
- TOWN OF FLETCHER
- CITY OF HENDERSONVILLE
- TOWN OF LAUREL PARK
- TOWN OF MILLS RIVER

ELEMENTS:

- EXISTING GREENWAYS
- PARKS*
- MAJOR RIVERS/STREAMS
- MAJOR ROADS
- COUNTY BOUNDARY

*Parks include county parks, city parks, state parks/forests, and national parks/forests.
 **The feasibility study completed for Hwy 280 was conducted by Conserving Carolina. At this time, the Town of Mills River has no plans to move the project forward.

Please note that all greenways delineated in this map are representative of desirable locations to make greenway connections. The mapped lines of non-existing greenways are theoretical in nature.

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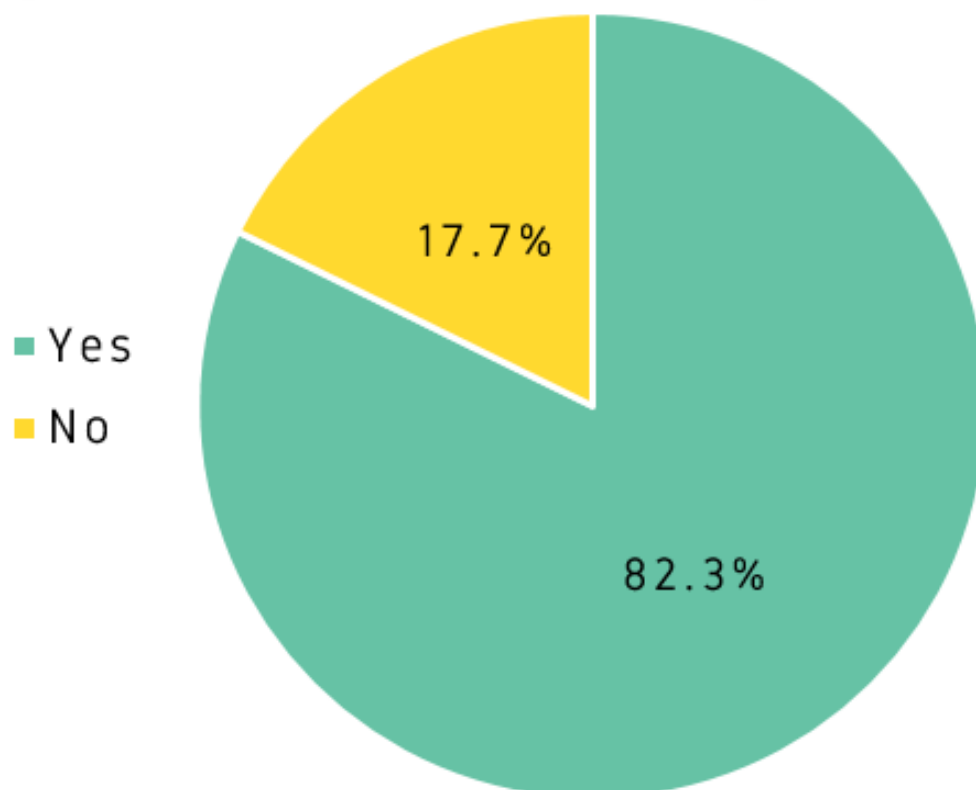
APPENDIX B: PUBLIC INPUT SUMMARY

SURVEY RESULTS:

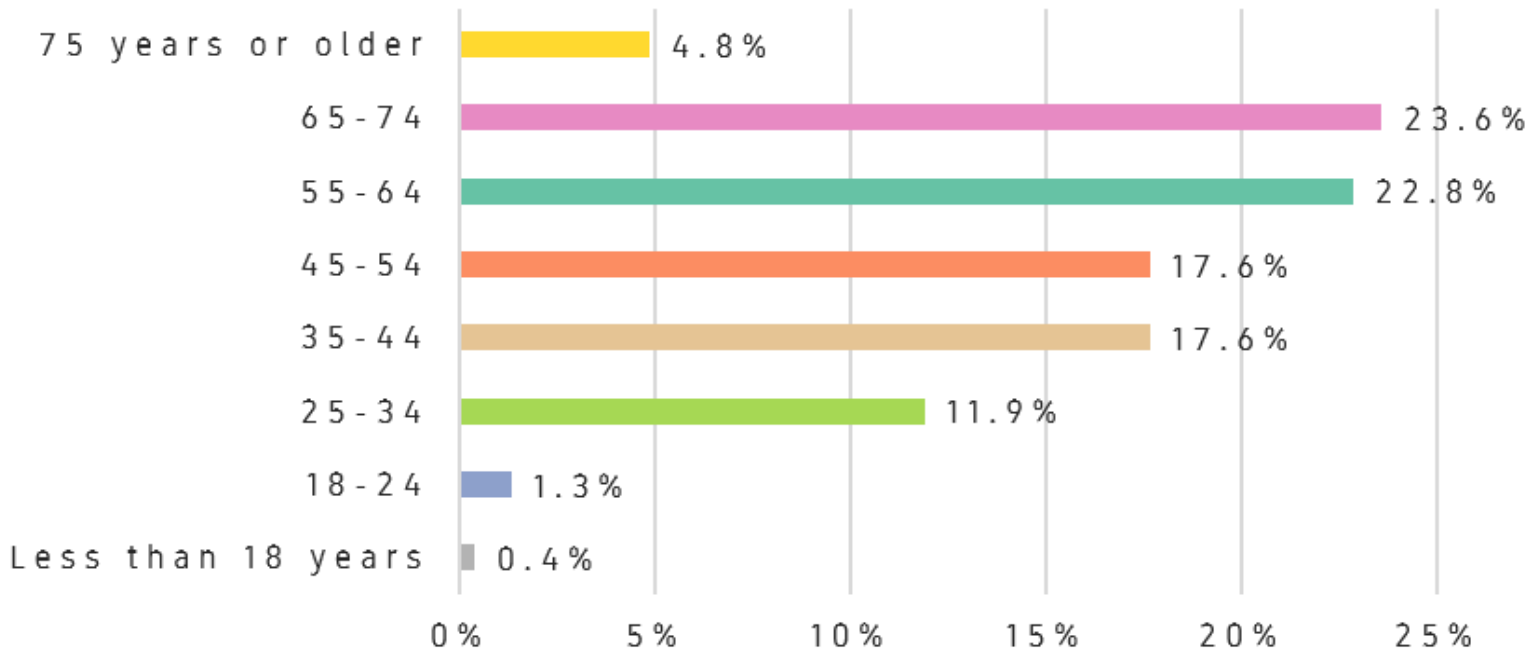
539 people responded to the County's Greenway Master Plan Survey that was posted online at www.HCgreenways.org and was available as a paper version during the public input sessions. Of these respondents, over 93% either approved or strongly approved of the Master Plan. The survey had a total of seven questions and took users an average of 2 minutes to complete. The majority of respondents live in Henderson County. The most represented age group is 65-74 years of age. The majority of respondents have previously visited or used one of the greenways in the County. Overall, the response to the survey represents a wide variety of people of various ages and backgrounds.

All numerical responses are summarized below. The responses to questions that allowed open-ended answers are summarized under each graph where applicable. To read a full copy of the survey results, please contact the Planning Department.

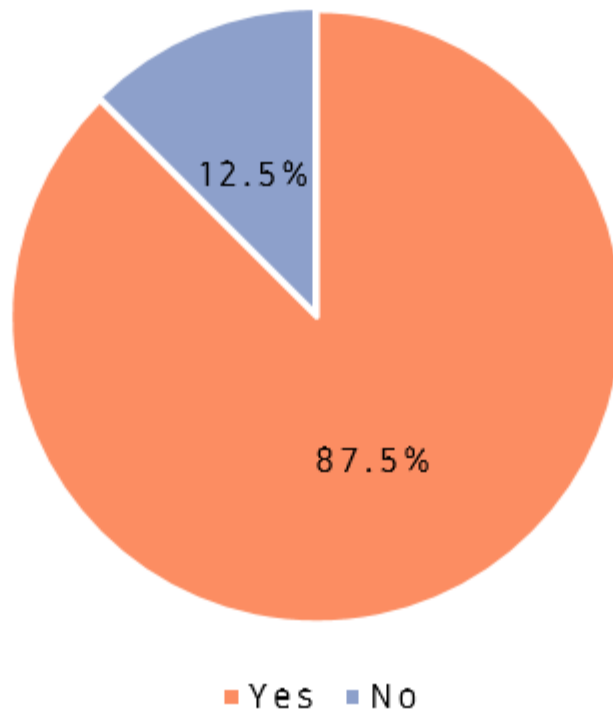
Are you a Henderson County Resident?



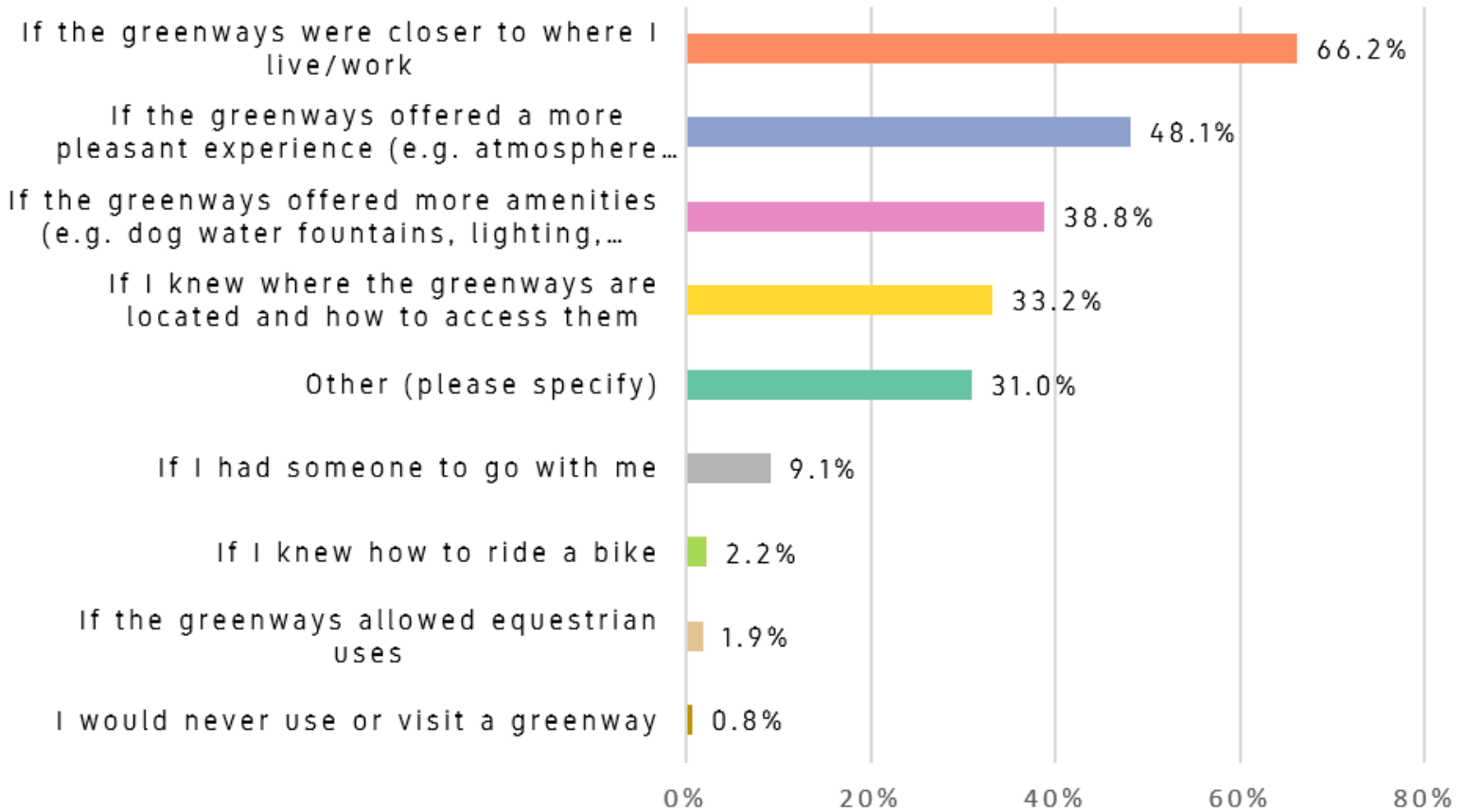
Which age range best describes you?



Have you ever used or visited a "greenway" in Henderson County? (i.e. The Oklawaha or Cane Creek Greenway)



Please finish this statement: "I am more likely to use or visit a greenway if..." (check all that apply)



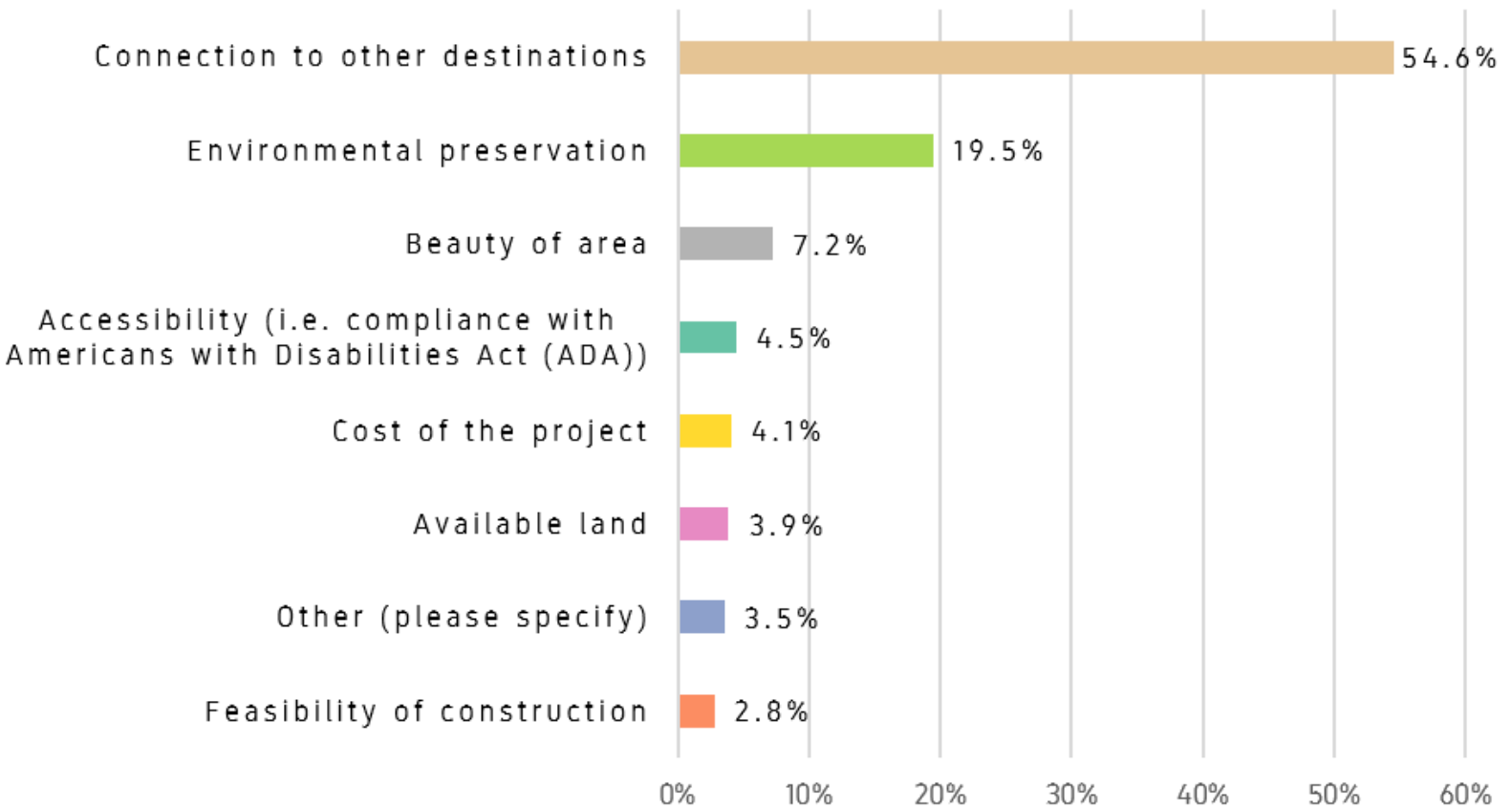
Over 30% of respondents chose to leave a comment. Comments most prevalent concerned the length of the the greenway; users would be more apt to use the greenways if they were longer and connected a greater area. Other comments included increased safety including guarded crosswalks, separation from the road, and installation of more lights. Other commentators asked for increased parking and bathroom facilities. Another frequently discussed topic was the inability to use the greenways when they are flooded or muddy. Quotes that represent the overall comments are listed below:

"I regularly use both greenways. I would use them more often if they did not flood and become covered with mud regularly."

"If they were longer and connected with significant places such as a park, unique restaurant, place for a picnic, micro brewery, etc."

"More safety precautions. As a woman, I'm hesitant to use the greenway alone. More patrols and lighting."

What do you think is *most* important for the County to consider when planning for greenways?



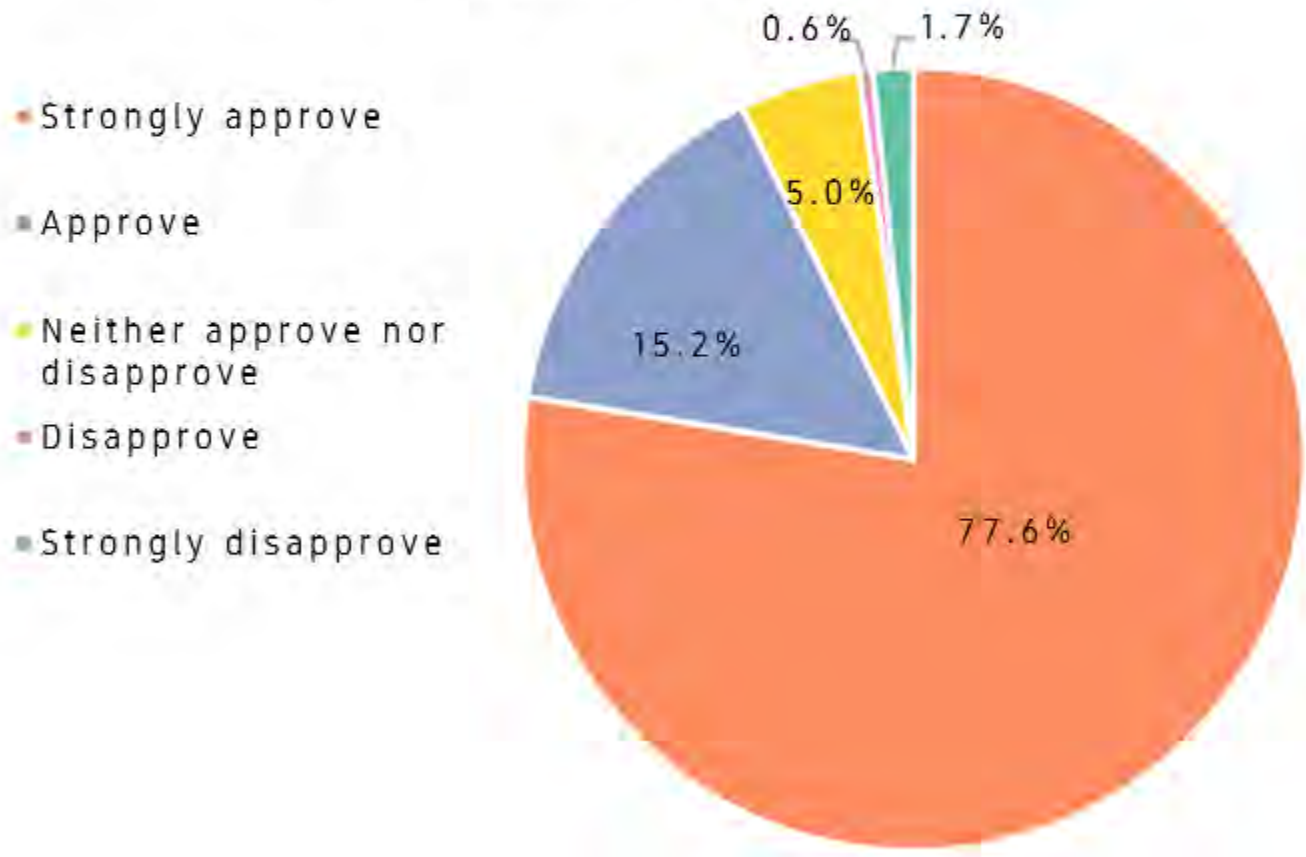
A little over 3% of respondents chose to insert their own answer. Many comments were from respondents who wished to choose more than one answer. Some of the most used words in the comments are "rural" and "character". Many comments also concerned available land and property owner rights. Quotes that represent the overall comments are listed below:

"I think that connection to other destinations and environmental preservation are equally important"

"Property owners' rights; rural character"

"Cost vs Benefit to community"

Please indicate your level of support/approval for the proposed Greenway Master Plan.



INPUT SESSIONS:

Over 100 people attended the public input sessions. All public comment was taken into consideration during the planning process. Overall, there was tremendous support for the plan. Residents showed their support of the plan and their excitement for the prospect of a county-wide Greenway Network.

The question that was most asked at both sessions pertained to the Ecusta Trail and if there has been any changes to the rail status since the City of Hendersonville conducted a feasibility study in 2012. Another popular topic was the flooding of the Jackson Park portion of the Oklawaha Greenway. Specifically, residents asked if there were any plans to re-route the current greenway to improve the conditions. Many residents were also interested in knowing details of the proposed trail designs. These comments should be considered during the implementation of this plan. The County may want to consider addressing the issues at Jackson Park before constructing new portions of the trails. The County should also keep the public informed during the engineering and design stages of greenway construction to better allow public input.

APPENDIX C: BENEFITS OF GREENWAYS

Greenways provide many community benefits including recreation, alternative transportation, improved water quality, habitat conservation, and flood control. Greenways have been shown to increase adjacent property values by providing an important amenity to residential and commercial developments. These and other benefits of a greenway network are described below in greater detail.

ECONOMIC BENEFITS

Greenways offer numerous economic benefits to the County, including higher real property values, increased tourism and recreation related revenues, and cost savings for public services. Greenways are viewed as amenities by residential, commercial, and office park developers who, in turn, are realizing higher rental values and profits. Greenways have been shown to raise the value of immediately adjacent properties by as much as 5 to 20 percent. The Greenway Network could also further develop the outdoor recreation industry as well as local businesses in Henderson County and the region.

As part of a study of the 5.5 miles of greenway in Brevard, NC, which was conducted by the Institute for Transportation Research and Alta Planning + Design, researchers noted the following economic benefits resulted from trail creation:

- \$1,566,000 generated in sales revenues
- 21 jobs supported through trail user expenditures
- \$53,400 in local and state sales tax collections from trip-related expenditures
- \$51,000 in healthcare cost savings, from increased levels of physical activity

In the 2012 Ecusta Rail Trail Planning Study & Economic Impact Analysis developed by Alta/Greenways, Seamon Whiteside + Associates, and Econsult, a table was created to display the projected health care cost reductions associated with the implementation of the Ecusta Trail. In summation, providing access to safe recreation will create a healthier community, which will reduce health care costs.

Additional Detail on Health Care Cost Reduction Impacts

Table B.8 – Estimated Health Care Cost Reduction Impact Resulting from Implementation of the Ecusta Rail Trail

	COST ESTIMATE PER EXERCISER			AGGREGATE COST REDUCTION (IN \$M)		
	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
Direct Health Care Cost Reductions	\$308	\$475	\$642	\$0.5	\$0.8	\$1.1
Indirect Health Care Cost Reductions	\$924	\$1,425	\$1,926	\$1.5	\$2.4	\$3.2
Direct Worker's Compensation Cost Reductions	\$6	\$10	\$12	\$0.0	\$0.0	\$0.0
Indirect Worker's Compensation Cost Reductions	\$24	\$40	\$48	\$0.0	\$0.1	\$0.1
Lost Productivity Cost Reductions	\$1,630	\$1,918	\$2,112	\$2.7	\$3.2	\$3.5
Total Health Care Cost Reduction Impact				\$4.8	\$6.4	\$7.9

HEALTH, WELLNESS, AND RECREATION BENEFITS

Providing opportunities for participation in these outdoor activities, close to where people live and work is an important component of promoting healthy lifestyles for residents. Trail systems could be developed not only for alternative transportation, but also to serve as primary recreation and fitness resources. Additionally, greenways can help meet the passive recreation needs of a growing population of older residents.

Greenways encourage more people to walk or bike to short distance destinations, which improves the health of residents. Studies have shown that as little as 30 minutes a day of moderate-intensity exercise (such as bicycling, walking, in-line skating or cross-country skiing) can significantly improve a person's mental and physical health and prevent certain diseases. Individuals must choose to exercise but well designed communities can make that choice easier. The CDC determined that by creating and improving our communities to be physically active, 25% more people would choose to exercise at least 30 minutes 3 times a week. Even for the physically 'inactive', small increases in physical activity on greenways can bring measurable health benefits.

We can improve our public health by designing 'active living' environments with safe, connected, accessible facilities that encourage a full spectrum of recreation and exercise opportunities encouraging more walking and bicycling. Individuals will benefit from increased levels of fitness and health with real cost savings. Employers will have healthier employees who miss fewer days of work.

Contact with nature through connected greenways provides psychological benefits. Time spent in parks and open spaces are scientifically linked to a greater ability to cope with life stressors, increased self esteem, cognitive ability, work productivity, and life satisfaction. It also reduces aggressive behavior, job-related frustration, and attention deficit disorders in children. Exercise has been shown to decrease depression and improve memory by stimulating the brain with neurotransmitters that dull pain, lighten mood, and relieve stress. Exercise can even help prevent or delay the onset of Alzheimer's disease.

TRANSPORTATION BENEFITS

In order to provide relief from congested streets and highways, greenways can serve as extensions of the road network, offering realistic and viable connections between origins and destinations such as work, schools, libraries, parks, shopping areas, restaurants, and tourist attractions. According to the Federal Highway Administration (FHWA) two thirds of all vehicle trips are 5 miles or less in distance. FHWA surveys have also shown that Americans are willing to walk as far as two miles to a destination, and bike as far as five miles.

ENVIRONMENTAL BENEFITS

Greenways often preserve wooded open space along creeks and streams, which absorb floodwaters and filter pollutants from storm-water. As a flood control measure, greenway corridors serve as a primary storage zone during periods of heavy rainfall. The protected floodplain can also be used during non-flood periods for other activities. Greenway corridors also serve to improve the surface water quality of local rivers and creeks. Greenways can be targeted as a primary habitat for many species of plants and animals. Programs can be established to not only protect the valuable existing forested and wetland areas, but also to reclaim and restore streams to support higher quality habitat.

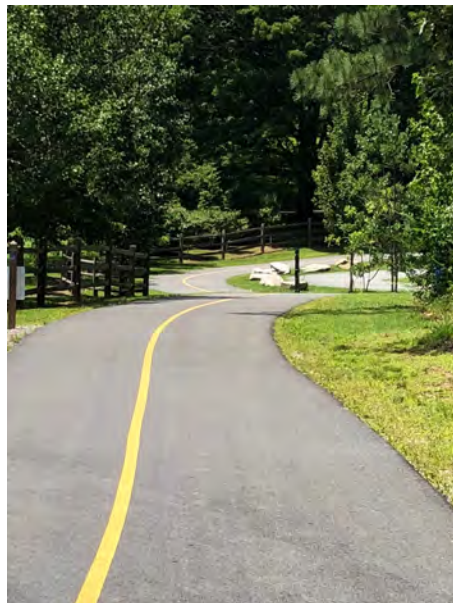
Greenways as alternative transportation corridors could serve to reduce traffic congestion, helping to improve local air quality.

EDUCATIONAL BENEFITS

Greenways can be a valuable outdoor classroom. Students and adults can use greenways to study nature and plant and animal life. Greenways also offer opportunities to interpret natural, historic, and cultural resources along the pathways.

CULTURAL BENEFITS

Natural, historical and cultural resources are increasingly important outdoor attractions to residents and visitors alike. Ecotourism is a responsible form of outdoor recreation through which individuals and groups experience natural areas, and learn about local history. Greenways can serve as connections to local heritage by preserving historic places and by providing access to them.



APPENDIX D: FUNDING RESOURCES

The following table contains a list of some typical funding sources for walking and biking projects, like greenways. The table is categorized by the funding source, the funding's purpose, the maximum amount of funding available, match requirements, and the application deadline.

FUNDING SOURCE	PURPOSE	MAXIMUM AMOUNT	MATCHING FUNDS REQUIRED	APPLICATION DEADLINE
Clean Water Management Trust Fund	Land acquisition: fee simple or easement. Must protect floodplain areas	N/A	20% is a competitive match	February 1
NC Water Resources	River access areas or greenways along rivers	N/A	50%	December 31
NC Recreation Trails Program	All types of greenways	\$100,000	25%	February 1
NC Parks and Recreation Trust Fund	All types of greenways	\$500,000	50%	May 1
Bike Belong Foundation	Greenways	\$10,000	20%	May 24
NCDOT	Funneling of Federal funds for bike and pedestrian projects	N/A	Typically 20%, but may vary	Rolling
Kodak American Greenways Grants	Greenways	\$2500	20% is a competitive match	Between March 1 and June 1
People for Bikes Community Grant Program	Leverages federal funds for bike centered projects	\$10,000	51%	December 1

Many of these sources are further explained in the following page. Additional funding sources may be available that are not included in the table above.

Most statewide conservation funding comes through four major trust fund programs: the Clean Water Management Trust Fund, the Agricultural Development and Farmland Preservation Trust Fund, and the Parks and Recreation Trust Fund.

The North Carolina Division of Parks and Recreation awards grant funds primarily from four sources:

- The North Carolina Parks and Recreation Trust Fund (PARTF)
- the Federal Recreational Trails Program (RTP)
- the Federal Land and Water Conservation Fund (LWCF)
- the Connect North Carolina Bond grant program (CNCB)

The Parks and Recreation Trust Fund (PARTF) provides dollars not only for land acquisition and capital improvements in the state's park system (65% of fund), but also for local government park and recreation purposes (30% of fund) and for increasing the public's access to beaches (5% of fund). Local government grants require a dollar-for-dollar match. To apply for a PARTF grant, local governments must complete an application detailing such aspects of the project as (1) basic facts and assurances, (2) justification for the project, (3) proof of site control, (4) project costs, (5) sources of local matching funds, (6) site plan and location map, (7) legal description of land and statements of value, and (8) environmental review. Local governments can request up to \$500,000 in assistance for each application.

The Clean Water Management Trust Fund (CWMTF) is a non-regulatory organization with a focus on protecting and restoring the State's land and water resources. The CWMTF provides grants to non-profit and governmental organizations to protect land for natural, historical and cultural benefit, limit encroachment on military installations, restore degraded streams, and develop and improve stormwater treatment technology. They help agencies to acquire lands, restore the habitat for fish, wildlife, and other species, and enhance the filtering of stormwater runoff to reduce pollutants from entering water supplies. Eligible grant applicants include (a) a state agency, (b) a local government or other political subdivision of the state or a combination of such entities, or (c) a nonprofit corporation whose primary purpose is the conservation, preservation, and restoration of North Carolina's environmental and natural resources. No match is required; however, a match is recommended and trustees may choose to fund projects at less than 100 percent of the application request. CWMTF funds about one-third of the grant requests that it receives.

The Agricultural Development and Farmland Preservation Trust Fund (ADFPTF) includes three grant areas: conservation easements, agricultural agreements, and programs that develop sustainable or viable agriculture. While this program does not specifically address trail acquisition and development, it could possibly be helpful when linking areas of open space to a proposed greenway. Counties are eligible to apply for funding, and match requirements depend on various factors. To apply for a grant from ADFPTF, local governments must submit the following: (1) an application, (2) a budget narrative, (3) a contact list for funding sources, and (4) a financial affidavit.

APPENDIX E: DESIGN STANDARDS

These Design Standards provide guidelines for greenway development. Design guidelines are important because they represent minimum standards for creating an active, safe, and accessible community. The guidelines are not, however, a substitute for a more thorough evaluation by a landscape architect or engineer upon implementation of facility improvements. The guidelines should be used with the understanding that each greenway is unique and that design adjustments will be necessary in certain situations in order to achieve the best results.

Facility design is a broad topic that covers many issues. Additional design considerations include the Americans with Disabilities Act, sustainable design, Context Sensitive Solutions, and Complete Streets.

AMERICANS WITH DISABILITIES ACT:

Requires that portions of greenways be accessible to persons with varying motor skills and abilities. Perhaps the best way to comprehend the importance of ADA is to understand that most of us, at some time in our life, will experience a temporary disability that affects the way in which we make use of outdoor resources. ADA benefits all Americans by making the outdoor environment more accessible.

SUSTAINABLE DESIGN:

The use of recycled materials and products is recommended in the construction of trail facilities whenever feasible. Recycled materials offer design versatility, often have a long life span, and require less long-term maintenance than similar products constructed from natural materials. Recycled plastic lumber and or concrete can be used for the construction of posts and poles, and recycled aluminum can be used for signs. Whenever possible, local materials should be used for construction.

CONTEXT SENSITIVE SOLUTIONS:

A collaboration between the Congress for New Urbanism and the Institute of Transportation Engineers produced the report Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities: An ITE Proposed Recommended Practice. It provides guidance and demonstrates how context sensitive solutions (CSS) concepts and principles may be applied in roadway improvement projects that are consistent with their physical settings. Go to www.ite.org/css for more information.

COMPLETE STREETS:

Complete streets are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Creating complete streets means transportation agencies must change their orientation toward building primarily for cars. NCDOT released a policy in 2012 that ensures that NCDOT Divisions design and operate the entire right of way to enable safe access for all users.

Henderson County's current typical greenway design is a ten foot two-way asphalt paved trail, generally located within a park or alongside a creek or stream. These typically have a three foot buffer or median between the trail and the stream edge or road curb. In order to make cyclists and pedestrians feel safer and more comfortable, and therefore increase trail usage, it is recommended to expand the buffer between the edge or roadway and trail wherever possible.

This plan recommends continuing the minimum trail width of ten feet to assure safe two-way traffic. Exceptions may be allowed in some sections of trail to protect existing natural resources or existing development. The cleared trail corridor should be no more than an additional ten feet on either side of the trail tread; in an area where the existing vegetation is scarce, there should be re-vegetation in the right-of-way outside this thirty-foot expanse.

Due to fiscal constraints, it may be necessary to phase the construction of certain portions of the Greenway Network. Construction phasing could equate to a few different scenarios. If right-of-way or property has been acquired, but nothing can be built immediately, a natural surface trail can allow user activity during the interim. Depending on the soil type, native soil trails can be an inexpensive and context-sensitive pleasing natural trail surface. Gravel is a practical option for narrow facilities that will not see significant traffic. Gravel surfacing provides a more stable footing that will be less likely to collect rain water in the winter.

NATURAL SURFACE TRAIL:

Sometimes referred to as footpaths or hiking trails, the natural surface trail is typically used along corridors that are environmentally sensitive, but natural surface trails also benefit equestrian uses. Natural surface trails are a low-impact solution found typically in areas with limited development. They also serve as an option where initial trail construction funding is limited.

- Trail surface can be made of dirt, rock, soil, forest litter, or other native materials. Use bedrock surface where possible to reduce erosion.
- Other trail erosion control measures include edging along the low side of the trail, steps and terraces to contain surface material, and grade-reversals to direct surface water off the trail.

Within the 'built' trail category are other surface type options.

TRAIL TYPES:

- Type 1 — Asphalt Trail
- Type 2 — Boardwalk
- Type 3 — Street-Based Trail
- Type 4 — Permeable Surface Trail

TYPE 1 - ASPHALT TRAIL:

Also known as a multi-use trail, the asphalt greenway trail is capable of being constructed within flood-prone landscapes as well as upland corridors. Trails can also be located along roadways (separated by curb lawns) where there are few intersecting driveways or roads.

- Minimum 10-foot width recommended for optimal use.
- Proper trail foundation will increase the longevity of the trail.
- Consider using high albedo pavement in place of conventional asphalt (it reflects sunlight, reducing radiated heat).
- A 2-foot-wide gravel strip may be installed along the trail for an alternate surface and to help reduce crumbling of trail edges.
- 2% cross slope (typical).
- 2 inches surfacing material over 4 inches (min.) of base course gravel over geotextile fabric is recommended. Soil borings may need to be conducted to determine adequate material depths.



Example of asphalt trail used on the Oklawaha Greenway in Berkeley Mills Park



Example of boardwalk used on a trail within the Carl Sandburg State Park.

TYPE 2 - BOARDWALK:

Boardwalk may be used in sensitive areas such as stream environment zones and in areas of steep slopes. Boardwalk construction is typically much more expensive than traditional paved paths and typically only lasts 10 years.

TYPE 3 - STREET-BASED TRAIL:

Although this Henderson County Greenway Master Plan recommends off-road greenways, on-road accommodations may be utilized to create connections when off-road trails are not feasible. Improvements for complete streets are recommended to provide safe, non-motorized access between parks, trails, neighborhoods, and other destinations.

- For pedestrians, these typically include sidewalks (minimum width of 5'), high visibility crosswalks, curb ramps, and pedestrian crossing signals at intersections with traffic lights.
- For bicyclists, a variety of facility types are recommended, including shared-lane markings (see image below), wide outside lanes, paved shoulders, or bicycle lanes (image below), depending on the specific street.
- Bicycle shared lane markings (or 'sharrows') make motorists aware of bicycles, show bicyclists the appropriate direction of travel, and, with proper placement, remind bicyclists to travel further from parked cars to prevent "dooring" collisions. The shared lane marking stencil is used on 35 MPH or slower streets where travel lanes are too narrow for striping bike lanes.



Bicycle Shared Lane (Sharrows)



Bicycle Lane

TYPE 4 - PERMEABLE SURFACE TRAIL:

Permeable surface trails utilize a specialized mixture and installation methods that allow the movement of stormwater through the material into the aggregate base/sub-base, which have significant voids for the flow and storage of stormwater. In addition to reducing runoff, this effectively traps suspended solids and filters pollutants from the water.

Consider the following for permeable paving:

- A maintenance schedule for vacuuming debris is required to retain permeability
- Not suitable in the floodplain, or in areas without proper drainage (sheet flow or pooling of water with sediment clogs pores).

APPENDIX F: MAINTENANCE & OPERATIONS

The management, features, and amenities of greenways can change over time based on increasing population and uses, pressures from adjacent land uses, the evolving desires and recreational habits of user groups, and available funding. It is therefore common to implement management plans over time rather than all at once, and for those management plans to change over time based on the factors listed above. For instance, a trail system can begin as a simple system of dirt trails and can be expanded over time by widening or by adding new trails to accommodate new uses and to disperse increased uses. Existing trails can also be upgraded to accommodate increased uses or needs as necessary by the addition of road base, concrete, or asphalt, as well as bridges, signage, or other features. Other amenities such as parking areas can be added over time to accommodate increased users, or parking areas can be omitted or removed in order to control usage. Phasing is a useful method of developing and managing greenways, and management plans are the vehicle through which such phasing is best expressed.

There are multiple ways to approach maintenance of the Greenway Network. These options could include:

- Contracting a private party that specializes in outdoor facility maintenance
- Creating an inter-governmental agreement with the City of Hendersonville and other municipalities to garner equipment and resources
- Working with non-profits and stakeholders to set-up volunteer maintenance on certain sections when possible
- Establishing a separate fund in the Parks and Recreation budget to cover greenway maintenance costs
- Creating an avenue for greenway users to report maintenance issues specific to the trail. This could be done via a smart phone application, a specific telephone line, or a email address dedicated to the greenway.

Each approach is described in more detail in the following pages.

CONTRACT THIRD-PARTY STEWARD

It may be a cost-effective option for the County to contract-out the maintenance of the Greenway Network to a third-party provider. The County would need to bid this contract like any other government contract. This option could allow for a structured maintenance plan created by the County that is consistent across the Greenway Network. Using an outside agency may also allow for a diverse contract that covers routine maintenance, greenway reconstruction, facilities maintenance, and specialized maintenance of emergency call boxes and lighting features.

VOLUNTEER MAINTENANCE AGREEMENT

The use of volunteer citizen groups will be strongly encouraged for a variety of activities. This includes; trail construction and maintenance, trash and litter control, exotic vegetation removal, safety patrols, and educational outreach. Individuals, community organizations, civic groups, corporations, and businesses are a good source of volunteers for trail development and maintenance. An example of this approach is an Adopt-a-Greenway program:

An Adopt-a-Greenway Program can be established to encourage community groups, families, businesses, school groups, civic clubs, and other organizations to join in managing the greenway system. The County should work closely with local organizations to ensure that these groups manage and maintain trails in a manner that is consistent with County objectives. The County should develop written agreements for each Adopt-a-Greenway entity and keep a current record of this agreement on file. Adopt-a-Greenway entities could be assigned a specific section of the greenway network, defined by location or milepost. The activities of each organization should be monitored by the County or its designee. Agreements for management can be amended or terminated at any time by either party, giving 30 days written notice.

Currently, the Friends of the Oklawaha administer this program to aid with maintenance. The following entities have committed to provide volunteer maintenance of the greenway for the betterment of the community:

- Conserving Carolina (formerly Carolina Mountain Land Conservancy) – Between Berkeley Mills Park (Balfour Road) and North Main Street
- Rotary Club of Hendersonville – Between North Main Street and 7th Avenue
- Blue Ridge Bicycle Club – Between 7th Avenue and Jackson Park (4th Avenue)
- MountainTrue - Spur from Mud Creek through Patton Park

INTER-GOVERNMENTAL MAINTENANCE AGREEMENT

Because the municipalities are key destinations within the overall network, the municipalities should work together and with the County to ensure uniform standards in greenway facilities, operation, and maintenance.

PARKS AND RECREATION MAINTENANCE FUND

If the County intends to have the Parks and Recreation Department maintain the greenways, it should consider setting aside funds specifically for the maintenance of the Greenway Network within the County's jurisdiction. The County may also consider increasing the maintenance budget to address cost increases when the Greenway Network develops and grows.

METHOD OF REPORTING MAINTENANCE ISSUES

Communication between greenway users and those in charge of maintenance is greatly enhanced by the use of established and emerging technologies. Social media outlets will allow the County and its partners to report maintenance activities that can disrupt travel or recreational plans for greenway users. Interpretive GIS software can also be used. Cities and counties are developing mobile phone applications that allow citizens to report maintenance problems such as potholes, street light outages, and clogged storm drains. A similar effort could be conceived for reporting on greenway maintenance issues.

Regardless of which option is chosen, there are a few key elements of maintenance that this Greenway Master Plan recommends, the Greenway Network should be viewed and maintained as a public resource. It should be considered as infrastructure similar to the street system or utility networks, serving the community for generations to come. The following guiding principles will help assure the preservation of a first class system:

- Good maintenance begins with sound planning and design
- Foremost, protect life, property and the environment
- Promote and maintain a quality outdoor recreation and transportation experience
- Develop a management plan that is reviewed and updated annually with tasks, operational policies, standards, and routine and remedial maintenance goals
- Maintain quality control and conduct regular inspections
- Include field crews, police and fire/rescue personnel in both the design review and ongoing management process
- Maintain an effective, responsive public feedback system and promote public participation
- Be a good neighbor to adjacent properties
- Operate a cost-effective program with sustainable funding sources

APPENDIX G: EXAMPLES OF SUCCESSFUL IMPLEMENTATION

GREENWAY ADVISORY BOARDS

This committee discussed and recognized the benefits of creating a permanent Greenway Advisory Board. If the County chooses to establish a Greenway Advisory Board, this board could be tasked with overseeing the successful implementation of the Henderson County Greenway Network. This board could consist of representatives from the County and its surrounding municipalities and including state, federal, and local agencies. Members of local interest groups should also be considered. This board could build public support through education and community engagement through leadership and planning.

In Huntersville, North Carolina, the Greenway, Trail & Bikeway Commission serves as the Town's advisory board and provides insight and direction in regard to the overall planning and development of their greenway system. This particular commission does not include elected officials because they are involved in fundraising efforts.

PUBLIC-PRIVATE PARTNERSHIPS

The County could establish a funding partnership consisting of public and private entities. The County may also want to explore partnering with relevant nonprofits for fundraising, grant writing, and right-of-way obtainment capabilities.

- **GREENVILLE COUNTY, SOUTH CAROLINA: SWAMP RABBIT TRAIL**

In Greenville, the County created a mutually beneficial partnership with the local, private hospital, Greenville Health System. The Greenville Health System provided a sponsorship of \$100,000 a year for 10 years primarily to help market the trail and promote its use for physical activity. These funds, in addition to other funding sources, helped create the Greenville Health System Swamp Rabbit Trail Network, which is a 22 mile multi-use greenway system.

- **GREENSBORO, NORTH CAROLINA: DOWNTOWN GREENWAY**

The Downtown Greenway project is a partnership between the City of Greensboro and Action Greensboro (the local Chamber of Commerce). This public/private partnership is in place to design, construct, and fund the \$30 million Downtown Greenway. The private sector has raised over \$10.2 million through foundations, corporations, and individuals, and the public sector has raised over \$14.8 million through local, state, and federal funds. The impetus for this partnership came from a position paper prepared for the local Health Foundation, in response to the Center City Master Plan, which stated that the overall health and well-being of Greensboro's population was in decline. Opportunities for increased physical activity offered by greenways were an important means of reversing this trend, so the local Health Foundation gave their financial backing to the City's greenway efforts.

APPENDIX H: FREQUENTLY ASKED QUESTIONS

Who will use greenways?

- Children on bikes, babies in strollers, skaters, people in wheelchairs, runners and adults walking or riding bikes to work, for pleasure or to connect with nature.

What about litter on greenways?

- In addition to providing trash cans and signage, patrol volunteers would be encouraged to pick up any litter.

How will emergencies be dealt with?

- Just as with any other emergency, in a true emergency, 911 should be called and dispatchers will send the appropriate response team. With the addition of more greenways, the County and municipalities may consider installing more "blue light" emergency call boxes along the greenways.

Do greenways open up adjacent landowners to additional crime or vandalism?

- Crime does not typically occur in places where there are lots of people and few hiding places. Greenways are crime deterrents as they lack escape routes (separates criminals from an escape vehicle) and provides 'visibility' with so many eyes and ears (i.e. cell phones and cameras) on the trail. Multiple studies have shown that greenways are some of the safest places in America, "you are much less likely to be a victim of crime than in one's own home, in a parking lot or walking down the street". Additionally, adjacent property owners to greenways/trails experience less vandalism and crime than other neighborhoods.
- The Oklawaha Greenway has been open for public use since 2004. Over the last 14 years, there have only been two incidents on the greenway. One was regarding noise of children playing and the other was when a runner carried a side-arm, which is legal.

What is my liability if a trail user is injured on the trail or on my adjacent property?

- When a public trail intersects privately owned land, landowners are offered protection under State recreational use statutes. Trail users wandering onto posted private property are considered trespassers under the law. Adjacent landowners are not at risk as long as they abstain from 'willful and wanton misconduct' against trespassers such as recklessly or intentionally creating a hazard.

What is a greenway overlay district?

- A greenway overlay district would apply to areas of land along a greenway corridor as identified in the Master Plan. The overlay district would be part of the Land Development Code and, through a voluntary process, allow future greenway corridors to be procured. In the current Land Development Code, new development is required to include street trees and provide one linear foot of sidewalk or walking trail for every linear foot of new road. In a greenway overlay district, a developer could provide a greenway easement in lieu of these other requirements.

What is 'connectivity'?

- Greenway connectivity combines a comprehensive trail network with the local transportation system connecting sidewalks, bike lanes and multi-use trails/pathways for a balanced, multi-modal transportation option. It creates a cohesive network for recreation and 'active', alternative transportation linking people, destinations and community resources. As more trails are connected to one other, the benefits of any particular greenway are greatly enhanced. "Build it and they will come (walk, run and ride)."

Greenway connectivity also links people to places and destinations where they live, work, learn, shop and play. These include our existing (and future) parks, playing fields and courts, playgrounds, dog parks, open fields, nature trails, picnic shelters and exercise stations as well as schools, libraries, commercial districts, historic, cultural and natural sites. It accentuates our quality of life providing a more livable community infused with entrepreneurial spirit and vitality.

What do the lines on the maps mean?

- The lines on the maps symbolize the relative location of the proposed greenways. The majority of the lines follow rivers, streams, railroad tracks, and roadways. Some are drawn in straight lines to signify the connection between point A and point B. The actual location of the greenways has yet to be determined. The County's policy is to only build the greenways where there are willing property owners and/or available public land.

How much does it cost to maintain a greenway?

- As of 2018, it costs the City of Hendersonville \$7,000 per mile per year to maintain the Oklawaha Greenway. This is not a great expense.

FREQUENTLY ASKED QUESTIONS: THE ECUSTA TRAIL

Where is the proposed 'Ecusta Trail (ET)?

- The Ecusta Trail would utilize the rail corridor that connects Hendersonville and Pisgah Forest passing through Laurel Park, Etowah, Horseshoe, and Penrose. The proposed 18.5 mile Ecusta Trail will connect existing trails in the cities of Hendersonville and Brevard and their trail connections. In Transylvania County, there are also trails planned in Davidson River Village with connections to the Davidson River Campground and the Mountains to the Sea Trail.

Why not train service?

- The rail line has not been utilized for freight service since the Ecusta Corporation closed in 2002. The old Ecusta Plant site has been purchased and will be developed as a residential, commercial, and green space (Davidson River Village). Once developed, it is extremely unlikely that there will be an industrial user that requires rail service.

What is a 'rail-trail'?

- Rail-trails are multi-purpose public paths created from former railroad corridors. Flat or following a gentle grade, they traverse urban, suburban and rural America and are ideal for many non- motorized uses, such as bicycling, walking, inline skating, cross-country skiing, equestrian and wheelchair and stroller use. Rail-trails are extremely popular as recreation and transportation corridors and since the 1960s, more than 31,000 miles of rail-trails have been created across the country. Rail-trails provide multiple public benefits serving as: wildlife conservation corridors; creating greenways through developed areas; as a means of preserving historic landmarks; linking isolated parks; and stimulating local economies by increasing tourism and creating new local business opportunities.

Do rail-trails put railroads out of business?

- No. Rail-trails are built after all possibilities for continued rail service --one of the most environmentally sound forms of transportation-- have been exhausted. Rail-trails preserve the corridor in public ownership and, through the federal railbanking program, can provide opportunities for holding corridors as 'interim trails' until rail service is again needed. 'Railbanking' is literally a placeholder for trains and was established by the National Trail Systems Act of 1968, providing the perfect solution. Railbanking transfers the rights that the railroad has to use the rail corridor to an entity that can develop the rail-trail while preserving the corridor for future uses.

Who owns the rail line between Hendersonville & Brevard?

- The Hendersonville and Brevard Railway, Telegraph and Telephone Company built and owned the line from 1894 to 1899. This line connected its namesake towns to Rosman and Lake Toxaway. The company became the Transylvania Railroad on April 12, 1899. The current owner of the remaining 18.5 miles of rail is Watco.

What are the first steps in converting a rail-trail?

- The current Hendersonville-Pisgah Forest line is owned by Watco and although 'inactive' it has not been legally 'abandoned'. Once abandoned, 'federal railbanking' allows 'temporary trail use' on the right of way and the railroad usually removes the tracks and ties for salvage. The right of way is then re-graded with the original ballast left by the railroad. Many rail-trails are later surfaced with asphalt, crushed stone, wood chips or another material appropriate for trail use. Ideally, bridges are left intact so the trail agency need only add wood decking, appropriate railings and other safety features. Road crossings must be properly striped and signed for both trail and road users.

Why is it called the Ecusta Trail?

- The working name for the trail is The Ecusta Trail in recognition of the importance of the Ecusta Corporation in the history of the region. Ecusta commenced operation in 1939 and was one of the largest paper mills in the Southeast. The plant employed nearly 3,500 workers during its prime years of operation. The name Ecusta is reported to be the Cherokee word for "rippling waters" from old maps of the region.

Who supports the Ecusta Trail?

- Over 1,100 people, ten organizations, and six local governments have signed a petition that reads: "We, the undersigned, hereby petition that the elected governments of Transylvania County, Henderson County, the Town of Laurel Park and the Cities of Hendersonville and Brevard individually and jointly request that the State of North Carolina take action to acquire the Watco discontinued rail corridor linking Henderson and Transylvania Counties. The purpose would be to develop a state regional trail along such corridor for bicycling, pedestrian and other non-motorized uses and at the same time preserving the rail corridor for possible future rail traffic."

Where can I see an existing Rail to Trail comparable to the Ecusta Trail?

- Many of the people who signed the petition have experienced the Virginia Creeper Trail that connects Abingdon, Damascus and White Top, VA. This trail has provided many benefits to that region including significant economic benefits.

Do the adjacent landowners own the property if the railroad abandons it?

Watco claims it owns almost the entire corridor in 'fee simple'. It may hold easements on some of the parcels, and in some cases the ownership is not clear. However, Watco owns the rights to operate rail service on the line. The National Trail Systems Act of 1968 provides a legal means to transfer those rights regardless of whether the title is in fee or by easement and it preserves the corridor for possible future rail service while providing for interim use as a trail.

How wide is the Right of Way?

Except in several isolated cases where 20 to 50 feet was specified, the deeds convey 'a strip of land' of sufficient width to operate and maintain a standard gauge railroad. Watco claims the width of the rail corridor is 100 feet (except in the isolated cases where 20 to 50 feet is specified). The 100 foot width has been shown on numerous maps since at least 1916 filed with the federal and state governments for regulatory and revenue purposes.

How wide will the trail be?

The trail surface whether paved, crushed gravel or other surface would probably be 10 to 12 feet in width following the crown of the existing rail bed.

Why are supporters of the Ecusta Trail so enthusiastic about the development of the trail?

Most of us have experienced trails in other locations and understand the positive impact that the Ecusta Trail could have on our community. We recognize this as a once in a lifetime opportunity to provide a linear public park accessible to thousands of residents of our two counties. Rail to Trail developments have been incredibly popular in other locations because they provide a nearly level path through diverse scenery that can be used by the entire community. Most of the expense of development has already been incurred with the engineering, grading, bridges, and road crossings already in place. We are certain that even those few neighbors who initially oppose the proposed trail will realize the benefits of the trail after it is built. We believe that the Ecusta Trail will make a great place to live even better.

Shouldn't we save the railroad in case an industrial prospect needs it?

By Railbanking this corridor, the railroad always has the right to re-establish the railroad tracks if they so desire. In fact, there are many cases around the country where that has happened. In Henderson County, only one industrial property lies along the corridor (Coats American in Laurel Park). It is important to note that this company is in favor of this project. Within Transylvania County, the Executive Director of Economic Development has publicly stated that it is in the county's best interest to forgo promoting the area for industrial development in favor of additional commercial development.

What if an industrial prospect wants to use rail along this corridor 10-20 years from now?

- The railroad maintains the rights to re-establish the railway in perpetuity. Sometimes the railroad allows a 'rail with trail' with a trail lying parallel to an active rail line with a physical separation.

What are the economic benefits of the Ecusta Trail?

- Probably the closest example can be seen with the Virginia Creeper. Although the towns do little to promote the trail, they estimate that 250,000 bikers and walkers use the trail on an annual basis. In fact, conversations with several residents and business owners in Damascus revealed that the small town was on the verge of drying up before the trail was introduced. The town now caters to bikers and hikers with many small cafes, shops, vacation rental and bike rental businesses. Brevard was recently ranked as the #2 Mtn Biking destination in the US. Now that the Transylvania Tourism Authority is capitalizing on that as a tourist destination, the Ecusta Trail could greatly enhance those efforts.

What are the typical reasons why someone would be against the rail conversion to a trail?

- Community and political leaders may prefer to hold out for hope of an industrial prospect that requires rail. Adjacent property owners may believe that the trail would open them up to a greater risk of theft. Adjacent property owners may prefer to re-acquire the property that is currently owned by the railroad not realizing the legality of 'railbanking'.