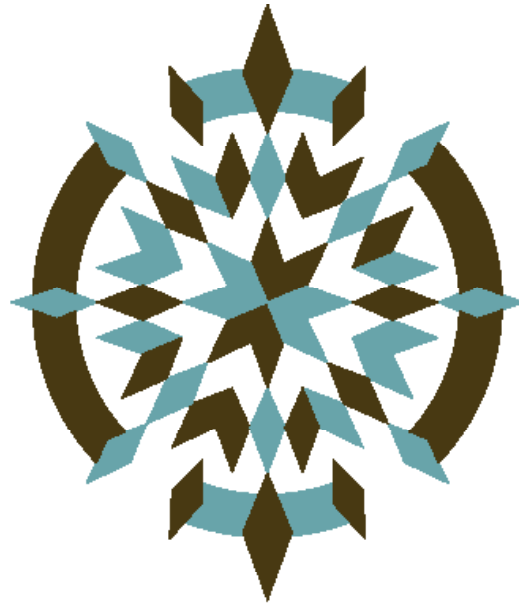


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# CAROLINA THREAD TRAIL MASTER PLAN FOR CATAWBA COUNTY COMMUNITIES

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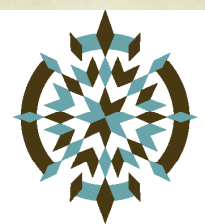
**CAROLINA  
THREAD  
TRAIL**

*Weaving  
Communities  
Together*

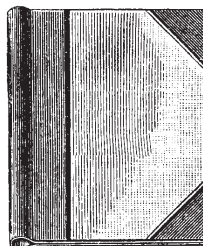
## The Vision

"The Carolina Thread Trail is a regional trail network that will eventually reach 15 counties and over 2 million people. Simply put, it will link people and places. It will link cities, towns, and attractions. More than a hiking trail, more than a bike path, the Carolina Thread Trail will preserve our natural areas and will be a place for exploration of nature, culture, science and history, for family adventures and celebrations of friendship. It will be for young and old, athlete and average. This is a landmark project. A legacy that will give so much, to so many, for so long."

-from the Carolina Thread Trail



**CAROLINA  
THREAD  
TRAIL**



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## Adoption

Each of the following jurisdictions  
have apoted the Plan:

Town of Catawba  
adopted on November 1, 2010

City of Claremont  
adopted on December 6, 2010

City of Conover  
adopted on November 1, 2010

City of Hickory  
accepted on December 7, 2010

Town of Long View  
adopted on December 13, 2010

Town of Maiden  
adopted on November 15, 2010

City of Newton  
adopted on November 16, 2010

Catawba County  
adopted on December 20, 2010



## Acknowledgements

The following organizations signed  
resolutions of support  
at the outset of this effort to work with  
neighboring communities and with the  
Carolina Thread Trail  
to plan, design, and build trails  
that will connect our communities:

Catawba County  
Town of Catawba  
City of Claremont  
City of Conover  
City of Hickory  
Town of Long View  
Town of Maiden  
City of Newton  
Catawba Valley Outing Club  
Probus of Lake Norman

Catawba County Communities  
Carolina Thread Trail  
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Catawba County Historical Association  
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City of Conover Planning  
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Catawba County Parks Advisory Committee  
Tom Hopkins  
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NAACP

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Phil Piaski  
Catawba Valley Heritage Alliance

Howard Reinhardt  
Farm Bureau

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City of Conover Planning

Dr. Jim Ross  
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Steve Rowell  
Rock'n Road Bike Club

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Larry Williams

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Trust for Public Land





## Executive Summary

This Master Plan outlines a means for long-term coordination of greenway and trail development within the county, cities and towns in Catawba County in an effort to promote the preservation and improvement of residents' quality of life. It presents a first-ever plan to coordinate all existing and proposed municipal and county trails and supplement them with additional greenway/trail segments, to create a comprehensive multi-use network connecting people, places and destinations to each other and to surrounding counties.

This Plan is the outcome of a year-long public process spearheaded by the Carolina Thread Trail initiative and supervised by a Steering Committee of representatives from municipal and county governments, interested organizations, businesses and individuals. The Carolina Thread Trail's mission is to bring resources to the 15 county region in the south-central piedmont of North Carolina and the north-central portion of South Carolina to create an interconnected trail system, with major regional trails designated as the Carolina Thread Trail.

The outcome of the planning process is a map that includes all trails recommended to local governments for inclusion in their trail and greenway plans (See page 50). Trails displayed in pink are those recommended for the Carolina Thread Trail designation and trails in green are presented for consideration by local communities wishing to further connect the people and destinations of Catawba County. This map includes approximately 126 miles of potential Carolina Thread Trail and 112 miles of secondary greenway routes. The routes featured on these maps are ¼ mile wide because actual trail alignment will depend upon existing conditions, availability of land, rights-of-way, landowner interest and future opportunities.

It is well understood that building a trail system of this scale is no small undertaking. Segments will likely appear one-by-one, and adjustments will be made to the proposed routes as circumstances change or more information becomes available. Similarly, trail development will follow through various arrangements with multiple funding partners. Nevertheless, the following actions are recommended to take this plan from concept to reality in an intentional, coordinated, fair and transparent way, consistent with the planning process to date.

### Adopt the plan

Local governments adopted this plan which will serve as a guideline for developing future proposed connections; doing so does not commit them to funding plan implementations. The adoption procedures varied from community to community depending on existing plans and policies in each jurisdiction. The planning or recreation advisory board (as applicable) reviewed and recommended the plan to its governing body, which in turn considered it, made additional adjustments as needed, and officially incorporated it into its land-use plans. It is recommended that local regulations be amended to require developers to set aside land for trails whenever a development proposal overlaps with the proposed routes, as adopted.

### Build public support for trail implementation

Advocacy from individuals with a personal and professional interest in these topics is essential. It is recommended that a Trail Advisory Committee be formed for these leaders to discuss and celebrate progress with public events, share resources/tools, and otherwise coordinate trail planning and development activities. Other organizations can assist in identifying viable trail



opportunities and working with willing landowners to build support and interest in trails and greenways. For example, early collaboration with the arts community, as well as county schools and colleges, will encourage more partners to become vested in local greenways and the Carolina Thread Trail project. Local public art councils should be made aware of the opportunities inherent in the community trail system and encouraged to initiate public / private partnerships for support.

### Complete top priority segments

With an eye for “readiness,” the Steering Committee suggests that Catawba County communities work on first completing segments of trail where there is broad support and access to land. With a caveat that more research is needed regarding feasibility, and acknowledgement that circumstances may change, the Committee suggests the following opportunities, in no particular order, for priority implementation (refer to page 59 for full route descriptions):

1. Portion of Segments A and C:
  - 4.4 mile segment from the intersection of Old Lenoir Road / 321 to Ivey Arboretum.
2. Portion of Segment I:
  - 2.1 miles in length along the South Fork River from the proposed blueway access at Blackburn Ridge Road to Lincoln County’s jurisdictional border.
3. Portion of Segment M:
  - 3.2 miles in length between Catawba County Museum of History in Newton to Southside Park

4. Portion of Segment O:
  - 2.2 miles in length from Lyle Creek to Hwy 16
5. Portion of Segment O:
  - 2.5 miles in length from Claremont City Hall to Bunker Hill Covered Bridge
6. Portion of Segment O:
  - 2.6 miles in length from Bunker Hill Covered Bridge to Town of Catawba
7. Portion of Segment S:
  - 2.6 miles in length from Murray’s Mill to the Town of Catawba
8. Portion of Segment T:
  - undetermined length within future Mountain Creek Park
9. Portion of Segment W:
  - 4.2 miles in length from Sherrills Ford Road along Raccoon Track Drive to Duke Energy power easement.

Segments that are not listed may become priorities as the community builds support and identifies opportunities to work with landowners.

### Gain support from a variety of public and private resources

Trail networks are generally financed by piecing together funding from multiple sources, creating a “funding quilt.” This Plan lists local, state, federal and other funding sources, many of which local communities will use to acquire land, construct trails, and operate and maintain these facilities and amenities. The Carolina



Thread Trail organization, housed within the Catawba Lands Conservancy, can provide assistance with funding strategies, as well as potential catalytic seed funding for planning and implementation from its private capital campaign.

### Evaluate land or right-of-way acquisition options

Where public land is not already available or private developers are not already building trails along the planned trail route, conversations with private landowners are recommended to assess their interest in trails through their communities. This will assist with route feasibility and alignment. It is imperative that all trail efforts need to work with willing land owners on design, construction, and maintenance to ensure a successful trail project that benefits everyone involved.

### Design, construct and maintain trails

Communities should work through a public process to determine intended use of the particular segment at issue and design with attention to use, safety and affordable maintenance.

### Conclusion

The University of North Carolina Charlotte Urban Institute recently found that the 15-county region surrounding Charlotte, which includes Catawba County, is losing open space at a rate of forty-one acres per day. There is not only a risk but also a reality of losing public open space and recreational opportunities. The time is now to create trails that will provide recreational, educational and economic development opportunities, promote healthy lifestyles, and increase the community's connection to the region's

vital natural resources, while engaging citizens of Catawba County through public access.

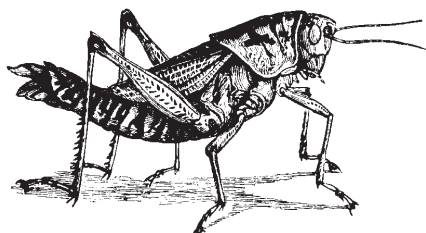


Sherrills Ford - Design input from all ages.



Hickory - Taking part in future development.

“With a key guiding principle of the Carolina Thread Trail being Community Self-Determination, the master planning process was infused with citizen input from all over the county.”



## CHAPTER 1 Introduction

### Carolina Thread Trail

The Carolina Thread Trail (“The Thread”) is a regional network of greenways, trails and conserved lands that will reach approximately 2.3 million citizens. It will link people, places, cities, towns and attractions.

The Thread will help preserve natural areas and will be a place for the exploration of nature, culture, science and history, for family adventures and celebrations of friendship. It will be for young, old, athlete and average. This is a landmark project, and creates a legacy that will give so much, to so many, for so long.

#### Overview

The Carolina Thread Trail Master Plan for Catawba County communities was developed through a locally driven process. The Plan is meant to serve as a guiding document for greenway and trail development within the county, cities and towns in Catawba County. Oversight was provided by a Steering Committee of municipal and county representatives, non-governmental organizations, and residents of Catawba County.

The Master Plan includes an introduction to the benefits of greenways and trails, a description of current conditions in Catawba County, a summary of the planning process undertaken, a concept map for a network of greenways and trails throughout the county, the Carolina Thread Trail (CTT) proposed route, and a description of recommended implementation steps. These latter action items provide local governments with suggestions for funding trail segments and expeditiously putting the on the ground.

The Carolina Thread Trail initiative, which has helped to spur the development of this Master Plan, is an effort to

encourage 15 counties in the south-central piedmont of North Carolina and the north-central portion of South Carolina to create a large, interconnected trail system that will preserve and increase the quality of life within the local communities. This Master Plan presents a conceptual route for trails throughout the county, some of which will receive the Carolina Thread Trail designation. Lands to be incorporated may include prime farmland, wildlife habitat, environmentally fragile lands, open fields and forests.

Simply put, a greenway is a linear corridor of undeveloped land preserved for recreational use, transportation or environmental protection. A trail is a linear route on land or water with protected status and public access typically for recreation or transportation purposes. For ease, the word “trail” will be used throughout this document to encompass both types of amenities.

The reach of its connectivity is unparalleled. The Thread is based on the following guiding principles and core values: collaboration, community self-determination, connectivity, inclusivity, leverage, and respect for the land and landowners.

#### Collaboration and Self-Determination

Collaboration and communication among Catawba County communities is essential for meaningful connectivity. The Master Plan encourages a collaborative process through which trails are conceived and designed in cooperation with adjoining communities so that a regional asset is developed out of a series of interrelated local decisions and actions.





## Connectivity & Inclusivity

Creating connections between communities and historical, cultural and recreational attractions is important. The Carolina Thread Trail seeks to create a region known for its “ribbons of green” connecting people to each other and to their heritage. Envisioning greater community interaction, the plan seeks to build bonds among diverse neighborhoods, and afford all residents greater access to natural surroundings.

## Leverage

The Plan’s success depends upon investment of outside capital in the region’s natural resources. In addition to funding sources at the local, state and federal level, other grant sources are included in Appendix V.

## Respect for the Land and Landowners

During the planning process, the Catawba County communities considered alternate trail routes; the resulting segments are broad corridors that represent multiple opportunities. For each segment, adjustments to the route can be incorporated as more landowners are engaged.

Through an inclusive, collaborative process, Catawba County and its communities decided which local trail systems to connect and be part of The Thread. However, not all local trails and greenways need to become part of the Carolina Thread Trail. Analogous to our highway systems, The Thread will develop as a “green interstate” focused on linking local trails and regionally significant attractions. Local trails will retain their own identities, whether or not they are designated as part of The Thread.



Geitner-Rotary Park, City of Hickory, NC



The look and feel of the Carolina Thread Trail may vary from community to community within Catawba County. It is its designation as part of the Carolina Thread Trail that will signify that a particular trail is part of this interconnected system, created by local communities working together to identify connection points and build trails that will grow together over time.

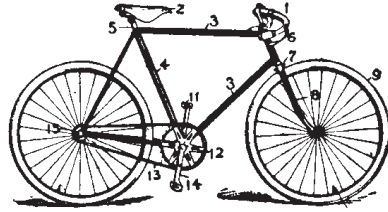


Conover- Carefully integrated plantings and path systems.



Opportunities to view the rural landscape.





## Chapter 2. Greenway Benefits

There is a wealth of available information addressing the benefits of greenway systems throughout the country. The first National Biking and Walking Study, conducted by The Pedestrian and Bicycle Information Center, as sponsored by the Federal Highway Administration, identified five categories of benefits from non-motorized transportation: improved health, transportation benefits, environmental benefits, economic benefits, and improved quality of life. As an alternative to non-motorized transportation, trails provide these and other important benefits (1).

### Health Benefits

Studies indicate that trails promote increased physical exercise for those who have access through their neighborhoods and communities. Trail systems are beneficial to the individual's overall sense of well being and physical condition. As reported through the Center for Disease Control and Prevention, hiking is an effective way to prevent and control weight gain. Estimated medical costs related to obesity reached a staggering \$75 billion in 2003 (2). Action items from the Office of the Surgeon

General include creating opportunities for physical activity in communities and at the work place (3). Walking, biking, and jogging are some of the more frequent types of exercise people engage in on trails. All of these aerobic activities increase cardiac strength and help stave off heart disease. There is an economic benefit from a healthier population too- more alert and healthy individuals are generally more productive and miss fewer work days due to illness (4).

The prevalence of childhood obesity has nearly tripled for school aged children in the past two decades. According to the Office of the Surgeon General, 13% of children aged 6 to 11 years and 14% of adolescents aged 12 to 19 years were overweight in 1999. This prevalence has nearly tripled for adolescents in the past two decades. Recommended action items to combat obesity are:

- Ensure daily, quality physical education in all school grades. Such education can develop the knowledge, attitudes, skills, behaviors, and confidence needed to be physically active for life.
- Reduce time spent watching television and in other similar sedentary behaviors.
- Build physical activity into regular routines and playtime for children and their families. Ensure that adults get at least 30 minutes of moderate physical activity on most days of the week. Children should aim for at least 60 minutes.
- Create more opportunities for physical activity at worksites. Encourage all employers to make facilities and opportunities available for physical activity for all employees.
- Make community facilities available and accessible for physical activity for all people, including the elderly.





## Improved Environmental Quality

More and more Americans are leaving the car at home to commute to work or to run errands. Many new building facilities cater to bike commuters as well, with increased bike parking, lockers and shower rooms. As more pedal power and less fossil fuels are consumed, air quality will improve. Automobiles generate approximately 56% of the carbon dioxide emissions each year throughout the nation (7). Carbon dioxide, unhealthy ozone levels, and PM<sub>2.5</sub> can also impact funding for industrial recruitment. It may even deter future residents from moving into an area, causing a dip in economic prosperity.

Trail corridors and conservation easements associated with trails along riparian corridors allow for large swaths of vegetation, which helps counter high levels of air borne pollutants. The filtration process performed by these vital zones spares local wildlife as well as humans from coming into contact with many harmful substances and contaminants. Carbon dioxide, unhealthy ozone levels, and PM<sub>2.5</sub> (fine particulates under 2.5 micrograms in diameter) can cause health problems such as lung disease, asthma, bronchitis, and even heart attacks (5). Health studies have also indicated a correlation between high fine particulate levels and premature death due to heart and

lung diseases (6). Additionally trails provide alternatives to vehicular transportation which is a major contributor to the air borne pollutants.

Riparian corridor buffers, (buffers associated with an area related to the natural course of waterflow), and landscaped open space will also help mitigate the detrimental effects of harmful emissions and improve air quality especially within areas of high traffic volume. Healthy riparian vegetation is key in intercepting pollutants and sediments that could otherwise cause eutrophication in downstream waterbodies. Preserved or newly planted vegetation within open spaces will remove carbon dioxide from the atmosphere during the photosynthetic process and release oxygen back into the atmosphere. Trees in particular act as a significant carbon sink and oxygen source (7).

All of these reasons have led both national and state governments to develop educational programs, monitoring systems, and promotional programs for new forms of transportation to curb the effects that vehicular traffic has on the environment. Many of the programs developed by the Unifour (the area consisting of Alexander, Burke, Caldwell, and Catawba county) involve educating the community on the impacts of automobiles on poor air quality. These programs distribute information about air pollution and ways that employers, schools, and individuals can help make the region a healthier place. Some traffic mitigation solutions include: promoting greenways, public transportation, and carpooling, which are being sponsored by organizations like NCDOT, the Greenway Transit, and local governments (8). Specific goals of these programs include a 5% increase in sidewalks in the region by 2015, an increase in the number of bicycle and pedestrian plans designed and implemented, and





the development of new transit programs (9). With the continuing support of these initiatives, air quality in the Unifour region will continue to improve, providing a model for the rest of the nation.

### Community Connections

The goal of the Thread Trail network is to connect local communities; the trails will provide linkages between significant cultural and environmental resources in the county and within a community. The Thread will provide more opportunities for interaction between neighbors, thus highlighting the area's history and cultural ties to the land. This is especially so in rural areas where there are often significant distances between neighbors.

### Improved Sense of Well Being

The Thread will provide opportunities for increased recreation, outdoor activities and improved physical fitness; it also imparts a greater sense of personal well being. Engaging outdoor activities, increased access to cultural destinations, and access to Catawba's significant environmental resources will promote an improved overall sense of community and responsibility.

### Economic Benefits

Each section of trail is unique, as it responds to local character, residents, natural conditions, and community culture and infrastructure. As such, a comparative analysis between trail systems is difficult; however, there is overwhelming consensus that greenway trails positively impact local economies. Benefits include increased tourism, recreational spending; robust economies and housing markets. In fact, trails become destinations in themselves. Restaurants owners and inns along greenway trails report a significant increase in business solely from

trail users (11).

To illustrate this economic benefit, the Speaker of the West Virginia House of Delegates noted:

"From small businesses centered around our recreation and tourism to science and technology jobs helping to restore our environment, we are beginning to see tangible economic development as a direct result of improved stewardship of our resources"(12).

As reported in The Economic Impacts and Uses of Long-Distance Trails:

"After just one season, 61 businesses located along the 35-mile-long Missouri River State Trail reported that the trail was having a positive effect on their businesses. Eleven of the businesses reported that the Trail had strongly influenced their decision to establish their business, and 17 (28%) had increased the size of their investment since the Trail had opened"(13).

According to A Regional Economic Impact Study of the Carolina Thread Trail, March 2007:

"The construction investment of the proposed trail, as well as all other construction-related opportunities, will lead to increased economic activity, employment, and wages. Total benefits include all direct expenditures, as well as additional indirect and induced expenditures that result from them. Specifically, it was estimated that:

- The proposed trail is expected to span approximately 500 miles with an average construction cost of \$200,000 per mile.



- Over the 15-year period, this investment is expected to generate over \$250 million in total direct, indirect, and induced economic activity.
- Of the total economic activity generated by the investment, over \$85 million represents the additional earnings of various workers.
- The construction of the trail is expected to support nearly 2800 new jobs (including jobs directly related to the construction itself)” (14).

### Increase in Property Value

A significant increase in property value is also associated with trail development. Many realtors have noted that proximity to greenway trails is among the top considerations for residential real estate. As noted in *Walking the Walk*, access to pedestrian networks and walkability directly increase residential property value. A 2007 survey commissioned by the National Association of Realtors showed that 57% of Americans agreed with the statement that “businesses and homes should be built closer together, so that stores and shops are within walking distance and don’t require the use of an automobile (15).”

Studies in other regions have substantiated findings noting increase in property value. For example, Seattle’s Burke-Gilman Trail has increased the value of homes near the trail by 6.5 percent. In another study of two rail-trails in Minnesota, 87 percent of landowners surveyed believed the trails had no negative impact on the value of their property (16).

According to A Regional Economic Impact Study of the Carolina Thread Trail, March 2007, an estimated 305,000 housing units will be directly affected by the proposed trail. In addition, the following statistics were noted:

- The average projected benefit per house is estimated to be approximately \$3,580.
- Over 50% of all homes in the affected zone are projected to appreciate by the maximum benefit of \$4,500.
- The total dollar gain in property is forecast to be \$1.7 billion in the affected zone.
- This represents an approximate 4% increase in the value of the entire housing stock of the affected area.
- If this gain is accurately capitalized and assessed, this should yield an aggregate incremental increase in property tax revenues of approximately \$17 million per year.
- The Net Present Value of this revenue stream is approximately \$261 million (using a discount rate of 5% over 30 years, which would roughly correspond to the period associated with any bond issue to finance the proposed improvements).

### Community Support

As previously described, a major characteristic of the Carolina Thread Trail is collaboration and self-determination. Support from the community is critical to the success of this Master Plan. Sixty percent of survey respondents support trail development with more than 70 percent of those strongly supporting greenway trails. Refer to Appendix III for complete survey results. As the Plan moves beyond the master planning phase, it is recommended that members of the Steering Committee remain engaged and continue to provide assistance with Thread Trail implementation. The Committee’s role should evolve from providing guidance to plan development to assisting with outreach efforts and engaging the citizens of Catawba County.



The following article is an excerpt from an opinion submitted by Mark Hawkins, Family Physician, Claremont NC.

"I am a family physician and I support anything that may lead a community to exercise more, control their weight and hopefully be healthier. Also, healthier people are simply CHEAPER and LESS EXPENSIVE than unhealthy people. The burden on Government Tax dollars and overhead of all forms of businesses small and large is rapidly growing."

"I have a lot of patients that use biking as a source of exercise. Have long, smooth, open trails for your average person to bike on long distances to be healthier is very important."

"The Thread trail is a way to hopefully get the people in this area healthier."

Email submitted by: Mark Hawkins/Family Physician/  
Claremont NC

Farmer Says Thread Trail is an Asset to Farming.  
Exercising

By Jordan-Ashley Baker O-N-E Staff Writer  
CLAREMONT, NC

Excerpt printed with permission from O-N-E:

Stanly Stewart did his homework on the Carolina Thread Trail. He has a pad of yellow paper covered in hand-written notes about why the trail is an asset to Catawba County and the surrounding area. He spent hours researching, and he can cite statistics detailing the trail's benefits. After his research, Stewart came to a conclusion: The Carolina Thread Trail is a great idea.

"I can't see anything but positives from (the trail)," Stewart said.

If adopted, the trail system allows Stewart to continue

doing two of the things he enjoys the most: farming and running.

"Obesity is an epidemic," Stewart said.

"I'd love to go out and see people running."

The trail also benefits another important part of Stewart's life: farming. The Carolina Thread Trail received negative attention from local farmers because some farmers are concerned about the thread trail and the problems it could potentially cause. The trails, however, are not a threat to farmers, Stewart said.

"The major threat to farming is unbridled development," he said.

The Carolina Thread Trail controls development. Stewart doesn't like to think about farming land sold to major development centers. Selling land for development doesn't preserve the land or keep it safe for future generations, like the Carolina Thread Trail does, he said. He encourages other landowners to ask themselves what legacy they want to leave for future generations.

"What do you want to be remembered for?" he said.

Allowing land to be part of the thread trail ensures open land and green space for years to come.

"I just think it would be a great legacy for a landowner," he said.

"I would much rather be known as someone who wanted to help."

"The trails could bring public awareness to farming and help people understand how farming works," he said. "I think this thing can't be anything but good for farming."

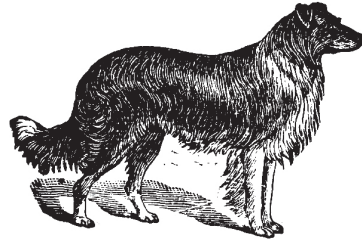


Murray's Mill Harvest Folk Festival



Murray's Mill Water Wheel





## Chapter 3 Existing Conditions

### History and Place

Catawba County, which takes its name from the Catawba Tribe of Native Americans who occupied the area when the first settlers migrated, was founded in 1842 by mostly German and Scottish settlers. An ideal location for early settlers, Catawba County is located within the upper piedmont and foothills of North Carolina and has an abundance of rivers, creeks and streams coupled with gently rolling topography. Farming, self-sufficiency and adherence to religious values provided the structure around which their lives were built. In recognition of this history, the county seal is graced with four emblems reflecting this early pioneer spirit and the values which continue to describe the citizens of the County - a cross for religion, a cow for farming and dairy, a wheel for industry and a torch to symbolize education.

The total area of the County is approximately 405 square miles. It is situated south of the Catawba River and west of the Lake Norman Impoundment, which is the largest reservoir in the state of North Carolina. Along with

many other creeks and rivers, including the South Fork, Jacob Fork, and Henry Fork, which host a robust riparian ecosystem, the county is enhanced by scenic natural areas such as Bakers Mountain which claims the County's highest point of elevation at 1,780 ft above sea level.

Catawba County is comprised of eight townships; Bandy's, Caldwell, Catawba, Cline's, Hickory, Jacob Fork, Newton, and Mountain Creek in which are the municipalities of Brookford, Catawba, Claremont, Conover, Hickory, Long View, Maiden and Newton which hosts the County seat. There are five counties adjacent to Catawba County. They are Alexander, Burke, Caldwell, Iredell, and Lincoln.

### Population

Catawba County's population has grown 12.3 percent from the year 2000 to 2009. This is approximately 4 percent behind the state's average population increase. According to U.S. Census data, the population of the county in 2000 was 141,685 and was estimated to increase to 159,125 in 2009 with approximately 25 percent of the county's population under the age of 18. Assuming population

Table 1:

**A Demographic View of Catawba County and the Unifour Metropolitan Area (2009)**

|                                 | North<br>Carolina | Alexander | Burke  | Caldwell | Catawba |
|---------------------------------|-------------------|-----------|--------|----------|---------|
| Population                      | 9,380,884         | 36,777    | 89,548 | 79,914   | 159,125 |
| Population Growth<br>Since 2000 | 16.6%             | 9.4%      | .4%    | 3.3%     | 12.3%   |
| Hispanic/Latino                 | 7.7%              | 3.5%      | 5.6%   | 4.4%     | 9.4%    |
| White                           | 73.7%             | 91.3%     | 88.2%  | 92.9%    | 87.1%   |
| Black or African American       | 21.6%             | 6.2%      | 6.5%   | 5.4%     | 8.5%    |

Source: US Census Bureau, 2009 American Community Survey



increase continues at its current trend, and cities and towns continue to expand through annexation, the trail will provide a critical counter-balance through preservation of open space, riparian corridors and connectivity to regional resources and destinations.

## Economy

Catawba County's economic roots, like other counties in the region, are primarily agrarian. The focus was on subsistence farming, the practice of only growing what the land and farming practices could sustain. This system remained in place as late as the early 1900's when more commercialized establishments began to appear. Over time, this gave way to manufacturing including textiles, hosiery, and furniture production. Within the past two decades, the County has witnessed yet another shift in industry from textiles and home goods to the production of data communication components and electronic equipment. The flagship of this shift is represented by the current construction of an data center which will house manufacturing for computer components. Despite the overall change in its manufactured goods, the largest growth in Catawba County's economy has been in the

**Table 2:**  
Population Change in Catawba County's Municipalities

|                 | 2000    | 2009    | Percent /Change |
|-----------------|---------|---------|-----------------|
| Catawba County  | 141,682 | 159,125 | 12.3%           |
| Brookford       | 434     | 431     | -0.7%           |
| Catawba         | 698     | 827     | 18.5%           |
| Claremont       | 1,060   | 1,153   | 11.1%           |
| Conover         | 6,604   | 7,428   | 12.5%           |
| Hickory(Part)   | 37,222  | 41,469  | 11.4%           |
| Long View(Part) | 4,722   | 4,978   | 5.4%            |
| Maiden(Part)    | 3,282   | 3,495   | 6.5%            |
| Newton          | 12,560  | 13,578  | 8.1%            |

Source: City-Data.com



Sherrills Ford/ Terrell



Bunker Hill Covered Bridge





public service sector and includes healthcare, auto repair, hotels, and legal services. Additionally, by marketing itself as a center for retirement and passive recreation, Catawba County expects to expand retail and commercial businesses to support its growing population. (Foresight)

In an effort to diversify its economy, the county is actively seeking to bring in biomedical, pharmaceutical, and technical industry while encouraging sectors in retirement and retail development.

Table 3:

An Economic View of Catawba County and the Unifour Metropolitan Area (2008)

|           | Persons Below Poverty Percent | Median Household Income | Unemployment Rate |
|-----------|-------------------------------|-------------------------|-------------------|
| Alexander | 12.7%                         | 44,460                  | 9.7%              |
| Burke     | 15.5%                         | 37,225                  | 11.1%             |
| Caldwell  | 15.4%                         | 40,966                  | 10.1%             |
| Catawba   | 13.8%                         | 43,737                  | 9.9%              |

Source: US Census Bureau, 2009 American Community Survey

## Recreational Infrastructure

The park infrastructure in Catawba County is highly developed with most parks situated in the population centers of Hickory, Claremont, Conover, Catawba, Newton and Maiden. There are also three County parks: Riverbend, Bakers Mountain, and St. Stephens, with a fourth, Mountain Creek, being planned. Additionally, there are several Booster parks sponsored by the Optimist Club. Existing greenway trails are located in Hickory, Newton, and Conover, with more planned or currently under construction such as an extension of the Newton Heritage Greenway.

## Municipal Plans

Not all municipalities have adopted planning documents for park and/or greenway development. Listed below are planning documents or proposals which could influence Thread Trail development.



Claremont City Park



Jacob's Fork Walking Tour



## Conover

The Conover Parks Master Plan developed in 2008 by Conover planning staff includes the following recommendations for consideration. Additionally it encourages participation in the Carolina Thread Trail Initiative.

- Greenways and pedestrian paths should be proposed in appropriate areas throughout the City in accordance with the 2008 Pedestrian Plan.
- When the development of any portion of land along the greenway plan occurs, the developer of that project is responsible for dedicating a public access easement and construction of that portion.
- It is recommended Conover revise its language to allow passive recreation within its easements. (Currently it's prohibited).

As per the 2008 Conover Pedestrian Transportation Plan, the proposed Thread Trail route follows the proposed Lyle Creek Greenway. The proposed Lyle Creek Greenway would stretch from County Home Road to Highway 16 North. The proposed trail would be within the Lyle Creek floodway and constructed along an existing City of Conover sewer outfall line. The proposed Greenway would provide a recreation opportunity for an underserved portion of Conover in the NW quadrant of the City which holds over 30% of the population.

Additional documents for reference include:

- 1998 Highway 16 Master Plan
- 2003 Land Development Plan

## Hickory

Three documents produced for Hickory contain information pertinent to the trails development. This

includes The Parks and Recreation Master Plan produced by Gardner Gidley and Associates in February of 1997, the Sidewalk, Bikeway, Greenway, and Trail Master Plan, produced in 2000 and updated in 2005 and The Parks and Recreation Needs Assessment produced by Site Solutions in May of 2010.

The 1997 Park and Recreation Master Plan, although the oldest of the three plans, provides an inventory of Hickory's recreation infrastructure. It is of interest to note a 1989 "Outdoor Recreation Participation Survey" conducted by the State of North Carolina which provides insight into outdoor recreation activities by North Carolinians. The five most popular outdoor recreation activities in North Carolina are: walking for pleasure; driving for pleasure; viewing scenery; beach activities; and visiting historical sites.

The 2005 Sidewalk, Bikeway, Greenway, and Trail Master Plan was developed as an update to the 1997 Hickory Sidewalk and Bikeway Master Plan. The planning process included involvement from the Sidewalk, Bikeway,



Hickory park along proposed route





Greenway, and Trail Task Force made up of members from Hickory City Council, the Planning and Parks and Recreation Commissions, and City staff. The Master Plan identified and provided design guidelines for 137 miles of sidewalks, 132 miles of bikeway, and 8.8 miles of greenway. Suggested Greenway corridors from the Master Plan which the Thread Trail may follow or intersect includes:

- Henry Fork River Greenways- Several loops and trail segments are proposed originating from Henry Fork River Regional Park including the proposed Geitner Creek Greenway
- Lyle Creek Greenway- Originating at St. Stephens Elementary School and continuing to the eastern most ETJ
- Jaycee Park Greenway Loop- Originating at intersection of 15 Avenue NW and Old Lenoir Road to connect Jaycee Park and the existing Greenway.
- There will be points of intersection with other proposed greenway sections including the SALT Block / Lenoir Rhyne University Urban Connector and the Lenoir Rhyne University / Stanford Park Greenway Connector
- The 2010 Parks and Recreation Needs Assessment provides up to date inventory and analysis of Hickory's recreational infrastructure. Included in the plan document are existing conditions maps illustrating greenway trails, civic gardens and other recreational facilities. It is noted the development of a city-wide greenway, along with a city-wide bike plan would provide an important amenity that would benefit residents and also have a significant economic impact on a community.

## Newton

The Heritage Greenway Trail is a phased trail network around Newton which will also connect Newton's downtown square. Recently completed, Phase I is a  $\frac{3}{4}$  mile in length, 10' wide compacted stone dust surface, and is restricted to pedestrian use.

## Community Plans

### Duke Energy Comprehensive Relicensing Agreement

As part of its relicensing through the Federal Energy Regulatory Commission (FERC), Duke Energy will construct several recreational amenities throughout the County through the Duke Energy Comprehensive Relicensing Agreement. Those improvements which relate to the Carolina Thread Trail routes are:

Long Shoals Access Area: Duke Energy will provide and manage canoe/kayak access with gravel parking at this currently undeveloped access area.

Catawba River Trail: Duke Energy has committed funds in the final comprehensive relicensing agreement for a 1.5 mile greenway extending east from Riverbend Park, along the Catawba River. Additional funding will be needed to construct the trail. It will be important for Catawba County to obtain easements and/or acquire property as viable opportunities become available.

Hunsucker Park: On the south side of Lyle Creek, Duke Energy will develop picnic facilities, 0.5 miles of trail, a trailered boat access, and paved or gravel parking. Duke Energy will also develop an entrance road from Hunsucker Park to the boat access site, provided the Town acquires the necessary easement across private property.



**Mountain Creek Park:** Duke Energy will support acquisition of up to 600 acres of property by Catawba County for public recreation and/or compatible permanent conservation at the mouth of Mountain Creek. Facility development may include a canoe/kayak launch, 20+ miles of proposed trail, bank fishing, campgrounds, swimming, and other water-based recreation facilities to be developed and managed by Catawba County.

**Island Point Access Area:** Duke Energy formed a small workgroup of parties that represented the public interest in this area which participated in developing a site plan for the future Island Point Access Area. The plan includes a multi-use recreation area with trails, bank and/or pier fishing, picnic facilities, swimming, camping, boating access facilities, and restrooms.

### Lake Norman Regional Bicycle Plan

The recently approved Lake Norman Regional Bicycle Plan, (LNRBP), completed by the Centralina Council of Governments with participation by Catawba County, designates a bicycle route around Lake Norman. The Plan recommends a network of trails connecting neighboring communities, destinations, and the various local bicycle facilities within the surrounding four-county region (Catawba, Lincoln, Mecklenburg, and Iredell). Catawba's Carolina Thread Trail route follows the bike plan along Slanting Bridge Road, Sherrills Ford Road, Raccoon Track Drive, and Kale Road. Two common connection points to neighboring counties within the LNRBP are used by The Thread as well. This includes the Slanting Bridge Road connection to Lincoln County and the connection into Iredell County via Hudson Chapel Road. -<http://www.lakenormanrpo.org>

### Greater Hickory Recreation / Tourism Plan

The Greater Hickory Recreation/Tourism Plan was prepared in 2006 by Woolpert Incorporated for the Western Piedmont Council of Governments and the Unifour Recreation and Open Space Task Force.

The stated purpose of this Plan is to reposition the region's economy by leveraging the natural, cultural, and recreational resources for sustainable economic growth and prosperity". Among one of the strategies included to leverage these resources is the establishment of a connected greenway system throughout the region. Specifically, the corridors identified in the Plan are the Lyle Creek Greenway and a link between Newton and Maiden. Another strategy includes planned greenway and blueway corridors for development on the Catawba, Henry Fork and Jacob Fork Rivers.

### Foresight 2004 Final Report

The Foresight Report indicates the County's desire to establish the region as the 'hub' of the Piedmont through economic growth, environmental and cultural amenities, and quality of life. Below is an excerpt of goals relevant to the Thread Trail.

#### Economic Development Goals

ED1. Establish Hickory and Catawba County as the "Hub of the Piedmont." The County should become a base of activity and events year-round.

ED2. Package natural resources and facilities for tourism. These would include, but would not be limited to, hiking, boating, golf, outdoor adventure parks, a sports arena and auto racing. This goal suggests marketing the area



as a destination for tourists by developing “packages” for the area’s heritage, natural resources, meeting and sports facilities, and its regional proximity to Charlotte, the mountains and the Piedmont Triad.

ED3. Build retirement communities through tourism, real estate and other allied industries. This goal suggests strategies to market retirement communities and related services.

#### Water Quality and Recreation

- Protect Catawba County waters from sedimentation.
- Preserve and market the County’s natural and recreational resources. Two key goals as they pertain to the Carolina Thread Trail are:
- Develop the proposed Greenway connecting Bakers Mountain Park and Henry Fork River Regional Recreation Park (Mountain View SAP).
- Develop the Greenway connecting Bunker Hill Covered Bridge and Catawba River. (Catawba SAP).

### Catawba County Parks Comprehensive Master Plan

Catawba County’s Parks Master Plan prepared by McGill Associates was adopted in 2007 by the Catawba County Board of Commissioners. The plan was produced in conjunction with the County’s Parks and Planning Staff and also a Focus Group. The Focus Group was comprised of community representatives from each of the Small Area Plans. Additional community input was garnered through a County wide survey. As noted in the document, the County currently has no established greenways. The County Parks Master Plan recommends five greenway corridors in Catawba County: Lyle Creek,

Jacob Fork, Henry Fork, Riverbend/Lookout Shoals, and the future Carolina Thread Trail. Mapping of each of the recommended greenway corridors is included in the document.

### County Small Area Plans

Catawba County’s Small Area Plans (SAP) were produced as recommended by the 1999 Strategic Growth Plan. Each SAP provides a conceptual sketch to guide land use, zoning, and improvements for community and public facilities. Through public input each community expressed desire to preserve open space and generally provide an increase in recreation opportunities. It is documented in many SAPs that each communities lament the loss of pasture to residential dwelling units. Also expressed is the strong desire to preserve significant views and existing natural areas. Many guiding principles suggest that transportation improvements be made to accommodate cyclists. Several residential principles suggest developers incorporate pedestrian circulation systems such as sidewalk connections when new developments are constructed.



Tributary of the Jacob Fork River  
Image courtesy of John Kinley



These principles have been incorporated into the County's Unified Development Ordinance.

### Balls Creek SAP

The Balls Creek area is distinguished by its large amount of rural open space, and its impressive view to Anderson Mountain in the southeast. With population growth on the rise, the area has dealt with limitations on development expansion due to watershed concerns; residential development has been restricted in watershed areas. Although there are currently no parks or greenways, there are many natural features to be treasured such as Murrays Mill Pond, Balls Creek, Maiden Creek, the Maiden Reservoir, and Anderson Mountain. The Plan also suggests the exploration of possible local scenic highway designations for Murray's Mill Road, Buffalo Shoals Road, and East Maiden Road.

### Catawba SAP

Located south of Interstate 40, the Catawba SAP encompasses 7,352 acres. The Catawba County Historical Association owns and operates Connor's Park located along Highway 70. The Park includes a trail and one of the last covered bridges in North Carolina, Bunker Hill Covered Bridge. The Plan recommends a greenway from Bunker Hill Covered Bridge along Lyle Creek to the Town of Catawba's Hunsucker Park. This greenway would continue through the Town to the Catawba River.

### Mountain View SAP

Bakers Mountain, the highest point in Catawba County, lies in the western portion of the Mountain View study area. Currently, a 196-acre passive recreation county park lies on the mountain's northeast side. The Mountain View area serves as a popular spot for bicyclists, and provides an

opportunity to develop an off-road system of bicycle trails to connect with a suggested greenway system. The Plan discusses an ideal route for a greenway system along the Henry and Jacob Forks Rivers. Duke Energy's powerline corridor could provide a means to connect rights-of-way to residential and commercial areas.

### Plateau SAP

Located in the southwest portion of Catawba County, the Plateau SAP contains several sites on the National Register of Historic Places, as well as Hart Square, a recreated town, based on life in 1840's North Carolina. The town contains sixty-one original log cabins and is open to the public for one day every October. In addition to these historic places, the Plateau area is also home to a pottery community dedicated to the traditions of Catawba County pottery production. There is an opportunity to introduce a "Pottery Trail" which would extend down Plateau Road from the intersection of Propst Crossroads to Burt's Road, into Lincoln County where it becomes Zur Leonard Road, to Cat Square Road, and north on NC Highway 10, back to Propst crossroads. An inventory of natural areas taken in April 2002 describes the narrow riparian corridor along the Jacob Fork River as the least disturbed river corridor in Catawba County. The Plan recommends the implementation of vegetated buffers along this corridor, the use of conservation easements where applicable, and the possibility of a formal public canoe access. Another opportunity for the promotion of green space lies in the southern end of the County's Eco-Complex. The Plan recommends an exploration of possible recreational opportunities to be constructed on the site. Like the Mountain View SAP, the Plateau region contains many people interested in bicycling. NCDOT has funded a





bicycle route map and signing project which has been underway for several years; however, this project has not had a final map produced.

### Sherrills Ford SAP

Not only is the Sherrills Ford SAP the largest area within the study, it has also seen one of the largest growth rates in the County since 1990, due to its vast cultural and natural resources. This growth has mainly to do with the area's largest natural resource: Lake Norman. The area is large and has higher concentrations of residents than other SAPs; however, there are currently no public parks or greenways located in the Sherrills Ford area. This will soon change with the development of Mountain Creek Park, a 589 acre county educational and recreation amenity planned with financial support from the Duke Relicensing Agreement, and a Clean Water grant. Another opportunity for park development lies along the lakefront. The Plan recommends the design and construction of a series of pedestrian and bicycle systems that link together existing and future neighborhoods. The designation of a "village center" at Sherrills Ford Road/Hwy. 150 intersection consisting of approximately 750 acres would also provide a destination for outside residents coming to utilize the lakefront land.

### St. Stephens/Oxford SAP

Though rooted in a rural farming mentality, the St. Stephens/Oxford Area has evolved into a suburban area. The area is home to scenic landscapes of rolling hills, streams and the Catawba River, as well as the Rock Barn, an 1822 barn which was owned by a founder of Catawba County and is on the National Register of Historic Places. County owned and operated Riverbend Park is also located in this SAP district. Running along NC Highway

16 and adjacent to Catawba River, the Park is 450 acres of public space. It offers a variety of passive recreational opportunities including walking, hiking, biking, and equestrian trails, as well as picnic areas and an observation deck overlooking the river. Trail links between this park and the Oxford access of Lake Hickory would promote the use of both areas.

### Startown SAP

Bisected by the new US Highway 321, the Startown SAP has easy connections to both Charlotte and the rest of Catawba County. Currently, there are no public parks or greenways. The study area has three major rivers running through it: the Henry Fork, Jacob Fork, and the South Fork of the Catawba River. These natural resources provide an opportunity for the development of riverfront parks and greenways which will not only allow for active and passive recreation, but will also serve a conservation purpose. In addition to these possible projects, the City of Newton has opened a 100 acre park at its water intake along NC Highway 10, just west of US Highway 321. The park when completed will include softball and soccer fields, hiking and mountain bike trails, a canoe launch, and picnic areas. The SAP committee encourages the County to explore cooperative ways to partner with Newton in developing the Jacob Fork Park. They also suggest working with the landowners and local conservancies to establish passive recreational uses and/or boating options on the South Fork, Henry Fork and Jacob Fork Rivers.



## Chapter 4. Proposed Trail Networks

### Process

The foundation of The Catawba County Carolina Thread Trail Master Plan was a strong and active effort put forth by the Steering Committee. The committee's broad representation from municipalities, natural and cultural resources, farm and business interests, Duke Energy and the State led to well-informed guidance and leadership throughout the life of the project. The committee met roughly once a month November 2009 through September 2010 while the plan was being developed.

To facilitate discussion outside meetings, a web site was developed for the project. This site hosted information about public meetings, Carolina Thread Trail talking points and frequently asked questions, survey links and results, maps, and planning documents. Most importantly the site hosted open discussions among the Steering Committee. These discussions included topics like Duke Energy's policy on trails within their easements, to local media coverage, feedback on draft routes and raising awareness of public meetings.

Early in the plan, the consultant conducted several target planning exercises with the Steering Committee to expose key issues that would influence the shape of the final plan. Additionally, these exercises were also used to identify user types and destinations around the county that should be considered when designating the Carolina Thread Trail routes. Results of the Issues, Users and Destination exercise are summarized below. While these lists were reviewed and refined by the Steering Committee and the public over the course of the project, they served as a starting point.



Maps marked up during the Public Forums

### Priority Destinations

#### Cultural and Recreational Sites

- Bunker Hill Covered Bridge
- Murray's Mill
- SALT Block
- Catawba County Museum of History
- St. Paul's Church and Cemetery
- Ivey Arboretum
- Future Conover Station-former Broyhill Factory
- Existing Greenways including (Conover Gateway Greenway, Hickory Greenway, Newton Heritage Trail Greenway)
- Existing Parks

#### Town Centers and Downtown Areas

- Hickory
- Newton
- Conover



- Catawba
- Claremont
- Maiden
- Sherrills Ford

#### Colleges and Universities

- Lenoir-Rhyne University
- Catawba Valley Community College
- Appalachian State University Extension

#### Historic Districts

- Murray's Mill Historic District
- Terrell Historic District
- Town of Catawba Historic District
- Claremont Historic District – Hickory
- North Main Ave Historic District - Newton

### Community Involvement

Outreach for the Carolina Thread Trail Master Plan in Catawba County utilized several public involvement tools throughout the process, including public workshops, utilizing the Carolina Thread Trail video, interactive mapping exercises and online surveys.



Steering Committee Meeting

### Public Forums

The first round of public meetings was held in January of 2010 in Sherrills Ford, Newton and Hickory. Thirty eight citizens attended the meeting at Sherrills Ford Elementary, 34 attended at the restored Newton Train Depot and 24 residents joined at the Highland Recreation Center in Hickory.

The format of these meetings included showing the Carolina Thread Trail video to introduce the community to the project as a whole from a regional perspective. Following questions and answers about the project, the consultant facilitated an interactive mapping exercise. Participants were asked to draw on maps of the county to show where they felt the trail should go and what destinations it should connect. These maps were later digitized and incorporated into the project mapping. As the maps were digitally “stacked,” patterns and concentrations of routes emerged. This mapping was crucial in the development of the overall draft routes.

The final element of the first round of public meetings was a comment form. These forms could be filled out during the public meeting or completed online. The Survey Feedback section provides more information about the survey.

Based on Steering Committee guidance, a fourth community workshop was added to the second round of public meetings. It was felt that the plan would benefit from including a meeting in the western region of the county. In June 2010, public meetings were held in Sherrills Ford (23 attendees), Newton (13 attendees), Hickory (7 attendees) and the new location, Mountain



View (8 attendees). The purpose of these meetings was to present the draft routes and solicit feedback. While attendance was lower than the first round of meetings, substantive comments were collected. In general, the communities were supportive of the project. However, there were specific property owners that expressed their concerns about the route potentially crossing their land. Routes have been modified in cases where property owners were adamantly opposed to the trail.

## Survey Feedback

Each of the two rounds of public meetings was accompanied by a survey that was available to be filled out at the meeting or online. The goals of the first survey were to establish a detailed understanding of any issues the community had with the Carolina Thread Trail concept, prioritize destinations to be connected by the trail, identify the most likely user types and solicit feedback on draft routes. Results and additional analysis of each survey is provided within Appendix III.

The first survey had 284 respondents. It was designed to ascertain attitudes toward greenway trails, offer opportunity for feedback on any potentially perceived negative views toward greenways and also to prioritize the list of destinations developed by the Steering Committee.

The second survey had 74 citizens respond. The survey asked the community to evaluate each draft route and provide responses based upon the perceived necessity for each of the proposed routes. Additionally each respondent was asked to respond to trail surface questions.

## Project Timeline

November 2009-

A Project Kickoff Meeting was held at the Catawba County Agricultural Resources Center in Newton to introduce the project to the Steering Committee and discuss goals and expectations. An overview of the Carolina Thread Trail was presented along with a planning workshop. Part One of the planning workshop was conducted to engage the committee. Issues, destinations, and users were identified. Objectives included discussion of greenway preconceptions and myths, identification of greenway impacts, and identification of critical landmarks and destinations within the county.

December 2009-

A follow up Steering Committee Meeting was held to continue the planning exercise. This critical component of the planning process resulted in a map depicting points of interest including parks, cultural landmarks, town centers, places of learning, etc. The map was then used at the public forums and county residents helped to make the connections between destination points. A public outreach plan was developed as to how the Steering Committee could spread the word about the Carolina Thread Trail. Target Destinations were ranked and a Google Group list was presented to facilitate an online discussion and survey.

January 2010-

The consultants hosted an interjurisdictional meeting to discuss connectivity to each surrounding county: Alexander, Burke, Caldwell, Iredell, and Lincoln. Lincoln County had concluded its Master Planning Process. Connection points were established between each county





with several designated bridge crossings over the Catawba River. The first round of public forums were held in Newton, Sherrills Ford, and Hickory in late January.

February 2010-

The Steering Committee, at its monthly meeting, decided to continue to pursue the Newton to Maiden rail corridor. Mapping revisions were made as the committee evaluated routes developed during the public forums. The proposed total mileage of trails developed from the Public Forum exceeded the suggested 100 mile limit expressed by the Carolina Thread Trail. Options to reduce mileage were considered by the Committee.

March 2010-

The consultants led several site walks throughout the County to evaluate proposed Thread Trail routes including the Jacob Fork corridor, the Town of Catawba at Hunsucker Park, and Lyle Creek in Claremont and Hickory. An alternater to the Newton-Maiden rail corridor was developed to include Southside Park.

April 2010-

The Steering Committees continued the process of refining the map with emphasis on regional destinations.

May 2010-

The Steering Committees continued the process of refining the map with emphasis on regional destinations. Preparations were made for the upcoming Open houses. The draft plan map was approved for presentation to the public.

June 2010-

A second series of open houses were conducted to present the conceptual Thread Trail Routes to the public. A final

interjurisdictional meeting was held to confirm cross-county connection points. Several points were modified to better align with desired cross county connection locations.

July 2010-

The Steering Committee met to review the Open house input. Preparation of the draft document continued.

August 2010-

Preparation of the draft document continued. Provided review and comments on priority.

September 2010-

A final presentation was made to the Steering Committee which reviewed the planning process, and final maps. The map was endorsed by the Committee. It was agreed to include all suggested priority routes in the document. The Committee discussed transitioning into an advisory role assisting with trail implementation.

November-December 2010-

Presentations were made to each jurisdiction during a two month period culminating in a final presentation to the Catawba County Board of Commissioners. The map and plan were adopted by the Town of Catawba, the City of Claremont, the City of Conover, the City of Hickory, the Town of Long View, the Town of Maiden, the City of Newton, and lastly on December 20th by the County Board of Commissioners.

### Master Plan Trail Routes:

After months of the planning process, the Steering Committee prepared its recommended Carolina Thread trail routes, which are shown on page 50. The Plan depicts



pink and green routes as recommended by the County. Pink lines illustrate the recommended Carolina Thread Trail route, whereas the green lines represent secondary and/or alternate greenway routes which either express the County's desire for greater connectivity within the County or are suggestions of an alternate to The Thread route. This document discusses each of the primary 'pink' Carolina Thread Trail routes in greater detail.

Carolina Thread Trail routes are shown as a  $\frac{1}{4}$  mile wide corridor. This is in recognition that each municipality and jurisdiction will further refine the exact route of each trail segment during subsequent phases of work. Following The Thread's key principle of self-determination, the process began with a planning session to solicit key qualities of Catawba County. Out of this process a list of cultural and environmental assets for the County was developed which through refinement during public process, became the destination list. This list served as a constellation of points on a map in which the public was asked during the public forums to help draw the route to connect the key points of interest.

Also during the planning exercises, the Steering Committee discussed perceived notions about greenway systems. What are the concerns in regards to greenways and how might these concerns be addressed? Property rights, respect of land owners, and safety all ranked as primary concerns during Steering Committee meetings. A presentation was made to the Farm Bureau representatives and other citizens to openly address these concerns and misconceptions.

### Description of Trail Routes:

The recommended Carolina Thread Trail Route is approximately 126 miles. Within the proposed routes, approximately 56,000 people, which is over  $\frac{1}{3}$  of the county's population, are within a  $\frac{1}{2}$  mile of the proposed trail. Many of the County's cultural amenities are within a  $\frac{1}{4}$  mile distance, including 90% of town centers, 100% of historic districts, one-half of the County's colleges and universities, and three-quarters of identified agricultural tourism sites. Of the nearly 126 miles of proposed Carolina Thread Trail, 44.6% follows riparian corridors, 20.8% along sidewalks, 23.6% along road rights of way, 5.2% within utility easements where feasible, and 2.6% follow existing greenway trails. The remaining 3% follows other miscellaneous corridors. It is understood that the utility rights-of-way are easements and are owned by the underlying property owners.

Beginning on page 30 is a description of each trail segment which relates to the segments on the enlarged maps. Each segment description provides trail profile information including its segment length, proximity to priority destinations and potential population benefit.



## Catawba County - Carolina Thread Trail Route Analysis

|   | Route Metrics | Percentage of Total |
|---|---------------|---------------------|
| Total Length (mi)                         | 125.9         |                     |
| Existing Greenways (mi)                   | 3.3           | 2.6%                |
| Newly Proposed Greenway (mi)              | 122.6         | 97.4%               |
| New Trail Stream/River Corridor (mi)      | 56.1          | 44.6%               |
| New Trail Sidewalks (mi)                  | 26.2          | 20.8%               |
| New Trail via Road ROW (mi)               | 29.7          | 23.6%               |
| New Trail via Rail Corridor (mi)          | 0.0           | 0.0%                |
| New Trail via Utility ROW, where feasible | 6.5           | 5.2%                |
| Other (mi)                                | 4.1           | 3.3%                |

### Priority Destinations

### Percent Served

|  |      |        |
|--|------|--------|
| Cultural and Recreational Sites within walking distance* |      |        |
| High Priority  | 5    | 83.3%  |
| Medium Priority  | 4    | 44.4%  |
| Town Centers and Downtown Areas within walking distance* | 9    | 90.0%  |
| Existing Trails within walking distance*                 | 4    | 100.0% |
| Parks within walking distance*                           | 27   | 45.8%  |
| Colleges and Universities within walking distance*       | 2    | 50.0%  |
| Historic Districts within walking distance*              | 6    | 100.0% |
| Agricultural Tourism Sites within walking distance*      | 3    | 75.0%  |
| Blueway Access Points withing walking distance*          | 8    | 23.5%  |
| Other Connections and Destinations                       |      |        |
| Cross-County Connection Points                           | 8    | 66.7%  |
| Schools within walking distance*                         | 24   | 41.4%  |
| Libraries within walking distance*                       | 6    | 85.7%  |
| YMCAs within walking distance*                           | 3    | 60.0%  |
| Along Proposed Lake Norman Bike Route (mi)               | 14.0 | 11.1%  |

### Access

### Percent Served

|   |        |       |
|---|--------|-------|
| Children within service area**              | 13,207 | 35.6% |
| Seniors within service area**               | 7,867  | 38.9% |
| Total Residents within service area**       | 56,594 | 36.6% |
| Low Income Households within service area** | 8,768  | 37.9% |

### Regional Metrics

|                                   |      |
|-----------------------------------|------|
| Miles per 1000 residents          | 0.81 |
| Miles per 10 sq miles county area | 3.03 |

\*Walking Distance assumed at 1/4 mi

\*\*Service Area assumed at 1/2 mi

\*\*\*Based on 2007 census projections (Claritas)



**NOTE:** The following corridors are listed in sequential order beginning with Corridor 1, Segment E as below.

### Corridor 1: Three Forks Corridor (see map page 52)

#### Segment E. Henry Fork River Corridor: Burke County Line to Brookford Blvd

##### **Route Profile:**

- 6.3 miles in length – stream corridor

##### **Access Opportunities:**

- Adjacent to Henry Fork River Regional Park

##### **Population within 1/2 mile of proposed segment:**

- 1744 residents
- 277 residents / greenway mile

##### **Priority Destinations within walking distance (1/4 mi):**

- Brookford Town Center
- Henry Fork River Regional Park
- Henry Fork Blueway Access Site

##### **Cross-County Connections:**

- Burke County

##### **Challenges and Opportunities:**

- Challenge: US 321 crossing needed
- Challenge: Obtain multi-use easement over sewer easements
- Property owner concerns

##### **Site Visit Notes:**

- Henry Fork / Hwy 321 / Hwy 127 will need

consideration due to relatively steep embankment along the Henry Fork River at this location

- More analysis of Brookford Blvd / Henry Fork crossing needed
- Hwy 321 has sidewalks along south bound lanes but not north bound lanes
- Street crossings are wide and would need to be upgraded



Overpass at Henry Fork River

#### Segment F. Bakers Mountain Park Connector: Henry Fork River to Jacob Fork River

##### **Route Profile:**

- 4.2 miles in length – stream corridor

##### **Access Opportunities**

- Adjacent to Bakers Mountain Park

##### **Population within 1/2 mile of proposed segment:**

- 990 residents
- 236 residents / greenway mile

##### **Priority Destinations within walking distance (1/4 mi):**

- Baker Mountain Park

##### **Challenges and Opportunities:**

- Challenge: Topography





- Challenge: Multiple property owners
- Opportunity: May have some willing property owners south of Bakers Mtn. Park (Catholic Conference Center)

#### **Site Visit Notes**

- Not reviewed

#### **Segment G. Jacob Fork River Corridor: Camp Creek to Jacob Fork Park**

##### **Route Profile:**

- 10.8 miles in length – stream corridor

##### **Access Opportunities:**

- Adjacent to Jacob Fork Park
- Provides access to Jacob Fork Blueway Access Sites (3)

##### **Population within 1/2 mile of proposed segment:**

- 1562 residents
- 145 residents / greenway mile

##### **Priority Destinations within walking distance (1/4 mi):**

- Jacob Fork Park

##### **Challenges and Opportunities:**

- Challenge: Topography
- Challenge: Multiple property owners
- Challenge: Several stream crossings
- Opportunity: May have some conservation-minded property owners in area willing to have trail easements
- Opportunity: Trail would be eligible for Clean Water grants if located within a riparian corridor.

##### **Site Visit Notes:**

- The Thread Trail team visited this site as part of its walking tours
- Ecologically sensitive and diverse region of the county
- The stream corridor presents unique topographic challenges
- As the river meanders it creates steep bank conditions along the outside bend of each curve
- The trail may receive grants if located within 25 to 50' from top of bank



Utility Easement

#### **Segment H. Henry Fork River Corridor: Brookford Blvd to Jacob Fork Park**

##### **Route Profile:**

- 7.0 miles in length – stream corridor

##### **Access Opportunities:**

- Adjacent to Jacob Fork Park
- Provides access to current and proposed Henry Fork blueway access sites (2)



**Population within 1/2 mile of proposed segment:**

- 3433 residents
- 490 residents / greenway mile

**Priority Destinations within walking distance (1/4 mi):**

- Jacob Fork Park
- Brookford Town Center

**Challenges and Opportunities:**

- Challenge: Hwy 321 crossing
- Challenge: Going around Brookford Dam at old mill site
- Challenge: Going past City of Hickory Treatment Plant facility
- Opportunity: Maintained sewer line to Sandy Ford Pump Station might provide good opportunity for greenway corridor.
- Opportunity: City of Hickory owns undeveloped acreage at north end of segment

**Site Visit Notes:**

- River corridor and Sandy Ford Pump Station not yet visited; however, there are noted power transmission lines between Robinson Road



Utility Easement

and the Henry Fork which could be potentially used although there may be topographic constraints.

**Segment I . South Fork River Corridor:**  
**Jacob Fork to Lincoln County**

**Route Profile:**

- 8.5 miles in length – stream corridor

**Access Opportunities:**

- Adjacent to 482 acres of Catawba Lands Conservancy properties and easements
- Adjacent to Jacob Fork Park
- Provides access to proposed South Fork blueway access sites (3)

**Population within 1/2 mile of proposed segment:**

- 934 residents
- 110 residents / greenway mile

**Priority Destinations within walking distance (1/4 mi):**

- Jacob Fork Park

**Cross-County Connections:**

- Lincoln County

**Challenges and Opportunities:**

- Opportunity: Bridge replacement planned for SR 2019 (Rocky Ford Rd)
- Opportunity: Catawba Lands Conservancy owns large tracts of land along river



### Site Visit Notes

- Southern most portion of this route along Jacob Fork is within floodplain and within conserved lands held by the Catawba Lands Conservancy. Connection to Lincoln County to the south via this trail route. There is potential for this to be a priority segment due to the lands being held within conserved property.

## Corridor 2: Hickory Connectors

(see map page 53)

### A. Hickory Greenway Connector: 2nd Street to Hickory Greenway and Burke County

#### Route Profile:

- 3.0 miles in length
- 1.4 miles using existing sidewalks along 16th Ave and 6th Street
- 1.2 miles using Hickory Greenway through Glenn C. Hilton, Jr. Memorial Park and along City Park,
- 0.4 mile along 15th Ave and Old Lenoir Rd to Hwy 321 bridge

#### Access Opportunities:

- Adjacent to Glen Hilton Park, Geitner Rotary Park, Hickory City Park, and the Hickory Greenway.

#### Population within 1/2 mile of proposed segment:

- 3335 residents
- 1112 residents / greenway mile

#### Priority Destinations within walking distance (1/4 mi):

- Glenn C. Hilton, Jr. Memorial Park
- Geitner Rotary Park

- Hickory City Park
- Hickory Greenway
- Catawba River Blueway Access Sites (2)

#### Other Destinations within walking distance (1/4 mi):

- Hickory High School
- Viewmont Elementary
- Kinder Kids School at St Lukes United Methodist

#### Cross-County Connections:

- Burke County / Caldwell County
- Regional connections to Over Mountain Victory Trail and Mountains to Sea Trail

#### Challenges and Opportunities:

- Opportunity: Potential bridge replacement at Hwy 321 which can incorporate pedestrian facilities
- Opportunity: Possible sewer easement connections in Burke County to Over Mountain Victory Trail

#### Site Visit Notes:

- Well established greenway system between these two parks.
- We heard from a resident that there is a significant change in topography accommodated by timber steps.
- 15th Ave and 17th street has a wide street section but no sidewalks or striped bike lanes. 12th street striped shoulder for bikes.



**B. Center Street:**  
**16th Ave to Alexander County**

**Route Profile:**

- 3.9 miles in length all along Center Street
- 2.4 miles existing sidewalk
- 0.7 miles proposed sidewalk
- 0.8 miles other

**Population within 1/2 mile of proposed segment:**

- 6834 residents
- 1752 residents / greenway mile

**Priority Destinations within walking distance  
(1/4 mi):**

- none

**Other Destinations within walking  
distance (1/4 mi):**

- Viewmont Elementary
- Jenkins Elementary
- Christian Family Academy
- Kinder Kids School at St.Lukes United Methodist Church

**Cross-County Connections:**

- Alexander County

**Challenges and Opportunities:**

- Challenge: Pedestrian and bike accommodation needed at Center St Bridge at Catawba River

**Site Visit Notes:**

- Good sidewalk connections from 16th Ave. up to Falling Creek Road; however no bike lanes.
- There are no sidewalks from Falling Creek to the bridge.
- The Bridge would need expanded deck width to accommodate multi-modal use.



Geitner-Rotary Park, courtesy of Hickory Parks and Recreation





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## Chapter 4. Proposed Trail Networks, continued

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Greenway Trails in Hickory



City of Hickory Town Center



### C. 2nd Street in Downtown Hickory: 16th Ave to 2nd Ave

#### **Route Profile:**

- 1.3 miles in length all along existing sidewalks on 2nd St.

#### **Access Opportunities:**

- Adjacent to McComb Park

#### **Population within 1/2 mile of proposed segment:**

- 3944 residents
- 3033 residents / greenway mile

#### **Priority Destinations within walking distance (1/4 mi):**

- SALT Block
- Ivey Arboretum
- Downtown Hickory
- Claremont Historic District
- Lenoir Rhyne University
- McComb Park



Lenoir-Rhyne University Campus



Highway 127 at Catawba River; connection to Alexander County

#### **Other Destinations within walking distance (1/4 mi):**

- Harper House / Hickory History Center
- Maple Grove Historical Museum
- Catawba Valley High School
- Hickory High School
- Viewmont Elementary
- Cornerstone Christian Academy
- Kinder Kids School at St Lukes United Methodist
- Hickory YMCA

#### **Challenges and Opportunities:**

- Challenge: No bicycle riding on sidewalks in City
- Opportunity: Side roads are more calm than Hwy. 127





### Site Visit Notes:

- Sidewalks are present for both north and southbound routes of Hwy 127.
- Gaps in sidewalk connections are noted across parking lot drive aisles and other drive ways.
- Significant sidewalk gap between 8th and 9th as shown.
- Signage noted for transit, bikes, and area attractions.
- Bike lanes not provided.



Offset sidewalk across driveway



SALT Block



Ivey Arboretum on Highway 127



Catawba Science Center along Highway 127



Utility Conflict in sidewalk



Signed Bike Routes