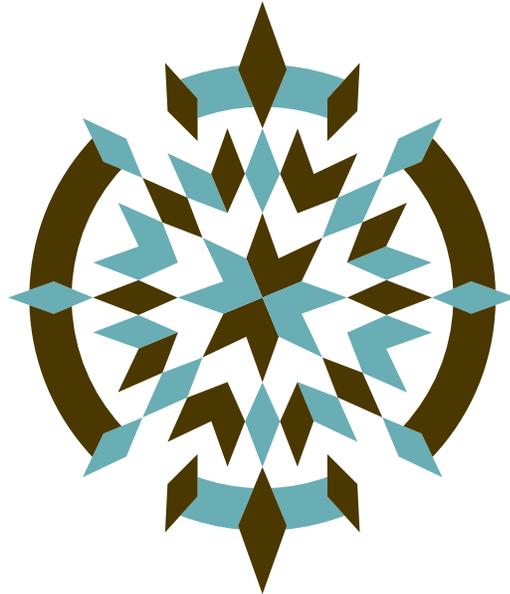

CAROLINA THREAD TRAIL
MASTER PLAN
FOR GASTON COUNTY
COMMUNITIES



**CAROLINA
THREAD
TRAIL**

*Weaving
Communities
Together*

JANUARY 2009



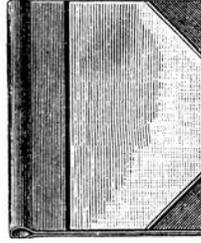


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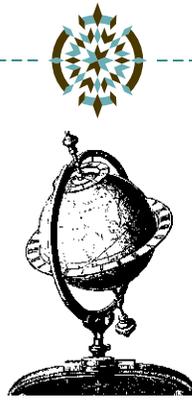
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City of Belmont

City of Bessemer City

City of Cherryville

City of Gastonia

City of Lowell

City of Mount Holly

Connect Gaston

Gaston 2012

Gaston County

Gaston County Community Healthcare Commission

Gaston Regional Chamber

Gaston Together

Gaston Urban Area Metropolitan Planning Organization

Mount Holly Community Development Foundation

Mountain Island Lake Marine Commission

Town of Cramerton

Town of Dallas

Town of McAdenville

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EXECUTIVE SUMMARY

This report outlines a means for long-term coordination of greenway and trail development within the county, cities and towns in Gaston County to help promote the preservation and improvement of residents' quality of life. It presents a first-ever plan to integrate all existing and proposed municipal and county trails with additional greenway/trail segments that will together create a comprehensive multi-use network for connecting people, places and destinations to each other and 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 as well as 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 in order 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, as applicable (See **Figure A** on page 63). Trails displayed in purple are those recommended for the Carolina Thread Trail designation and trails in yellow are presented for consideration by local communities wishing to augment or create trail plans to further tie together the people and destinations of Gaston County communities. Together, this map includes 265 miles of existing and potential trails. The routes featured on these maps are ¼ mile wide because actual trail alignment will depend upon existing conditions, including the 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 and 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 to date:

ADOPT THE PLAN

Local governments can adopt this plan to serve as a guideline for developing future proposed connections without committing themselves to funding plan implementation themselves. The adoption procedures vary from community to community depending on existing plans and policies. In each jurisdiction, the planning board (as applicable) should review and recommend the plan to its governing body, which in turn must consider, make additional adjustments as needed, and officially incorporate the trail into its land-use plans. It is recommended that regulations be amended to have developers 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 arts councils should be aware of the opportunities inherent in the community trail system and can initiate public / private partnerships for support.

COMPLETE TOP PRIORITY SEGMENTS

With an eye for “readiness,” the steering committee suggests Gaston County communities work on completing segments of trail where there is broad support and access to land. With a caveat that more research is needed into feasibility and that circumstances can change, the committee suggests the following opportunities for priority implementation (listed in no particular order): (1) from Spencer Mountain south to I-85 (along the South Fork River), (2) from Cramerton to Downtown Belmont near Highway 7, (3) South of I-85 to connect with Cramerton (along the South Fork River), (4) Crowders Mountain toward Gastonia, (5) existing planned Highland Rail Trail, and (6) from Highway 27 south to I-85 in Mount Holly. Communities that are not listed may become priorities as they build support and identify opportunities to work with landowners.

KNIT TOGETHER FUNDING FROM A VARIETY OF PUBLIC AND PRIVATE SOURCES

Trail networks are generally funded 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 need 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.

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 that in mind, as well as safety and affordable maintenance.

CONCLUSION

The University of North Carolina Charlotte Urban Institute recently found that the 15-county region surrounding Charlotte and including Gaston County is losing open space at a rate of forty-one acres per day. There’s 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, and promote healthy lifestyles while engaging citizens in Gaston County communities through public access and increasing the community’s connection to the region’s vital natural resources.

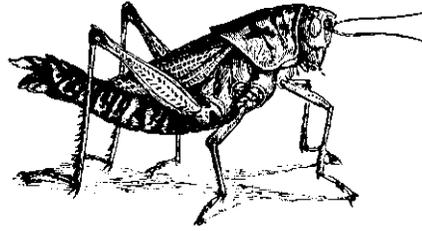
COMMUNITY INPUT



COMMUNITY INPUT



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

With oversight provided by a steering committee of municipal, county and interested non-governmental organizations, residents in Gaston County, North Carolina, participated in a locally-driven process to create this Carolina Thread Trail Master Plan for Gaston County Communities, also referred to as the Greenway Master Plan. This plan is meant to serve as a guiding document for greenway and trail development within the county, cities and towns in Gaston County.

The Master Plan includes an introduction to the benefits of greenways and trails, a description of current conditions in Gaston County, a summary of the planning process undertaken, a concept map for a network of greenways and trails throughout the county, introduction to the Carolina Thread Trail proposed route, and a description of recommended implementation steps. These action steps are intended to provide ideas for local governments to fund segments and expeditiously put them on the ground.

The Carolina Thread Trail initiative, which has helped to spur the development of this 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 plan presents a conceptual route for trails throughout the county, some of which will receive the Carolina Thread Trail designation. Lands to be incorporated can include prime farmland, wildlife habitat, environmentally fragile lands, open fields and forests.

In general, 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 the sake of brevity, the word "trail" will be used throughout this plan to encompass both types of amenities.

CAROLINA THREAD TRAIL

The Carolina Thread Trail 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 our 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.

The scale of The Thread's connectivity is unparalleled and is based on certain guiding principles and core values: Collaboration, Community Self-Determination, Connectivity, Inclusivity, Leverage, and Respect for the Land and Respect for the Landowners.

COLLABORATION AND SELF-DETERMINATION

Collaboration and communication among the Gaston County Communities is almost as important as connectivity. The Master Plan aims to encourage a collaborative process by which greenways are conceived and designed in cooperation with adjoining communities in such a way that a regional asset is created out of a series of interrelated local decisions and actions.

CONNECTIVITY AND 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. In offering the vision of greater community interaction, the program seeks to build bonds among diverse neighborhoods, as well as afford all residents greater access to our natural surroundings. Through this Master Plan, these goals are established.



LEVERAGE

The Plan's success depends upon generating additional investment of outside capital in our region's natural resources. Funding sources of the local, state and federal level are included in Chapter 5.

RESPECT FOR THE LAND AND LANDOWNERS

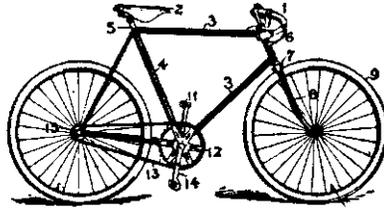
During the planning process, Gaston County Communities determined the location of their segments of The Thread by having alternative routes to consider. Portions of these routes included public lands or property owned by willing landholders, including developers who want to offer this amenity to their neighborhoods. The broad corridors featured present multiple opportunities, and adjustments to the route can be incorporated as more landowners are engaged. Expert trail builders indicate that trails are built by assimilating parcels over time in this fashion and that eminent domain is very rarely used.

Through an inclusive, collaborative process, each county and the communities within that county decide where their local trail systems will connect and become part of The Thread. However, not all local trails and greenways will 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. Other trails will continue to exist or be planned but may not receive the Carolina Thread Trail designation. Local trails will retain their own identities, whether or not they are designated as part of The Thread.

The look and feel of the Carolina Thread Trail may vary from community to community and county to county. Designation as the Carolina Thread Trail will signify that a particular trail is part of a plan to create an interconnected system, a plan created by local communities working together with their neighbors to identify connection points and to build trails that will grow together over time.



Avon/Catawba Creek Greenway, Gastonia, NC



CHAPTER 2. GREENWAY BENEFITS

Trails not only encourage friends, families and communities to interact with each other and nature, they also provide a venue for physical activities such as walking, jogging, running, skating and biking. The benefits of these activities are significant and far reaching.

HEALTH

A landmark report by the U.S. Surgeon General found that “Americans can substantially improve their health and quality of life by including moderate amounts of physical activity in their daily lives.” It also found that “health benefits appear to be proportional to the amount of activity; thus, every increase in activity adds some benefit.” Several studies have found that access to public green spaces increases physical activity levels.

A growing body of research suggests that mere contact with the natural world improves psychological health. Green settings have been shown to relieve feelings of anxiety and improve our ability to cope with stressful situations. In some cases, natural spaces provide therapy for conditions such as Attention Deficit Disorder and improve cognitive function and work performance. In addition, greenways, trails and parks provide safe places for kids to play, which is vital in the brain development of young children.

Trails also provide safe routes for pedestrians and bicyclists to travel. This separation from traffic can reduce the number of vehicle-pedestrian and vehicle-bicyclist related accidents.

ECONOMIC

The economic benefits of The Thread to Gaston County will be numerous. According to an economic impact study completed by Econsult, Inc. and Greenways, Inc. in February 2007 (with funding from the Women’s Impact

Fund), homes in the affected area of the Carolina Thread Trail are estimated to increase at least 4% in value. Gaston County trails are expected to not only bring new visitors and tourists to the region and inject new dollars into the local economy, but also promote connectivity between tourist destinations for visitors, as well as local residents.

Including development costs, the construction investment over the next 15-year period throughout the 15-county region for The Thread alone is estimated at over \$100 million. This investment will generate significant economic benefits, including jobs for the local communities and the region.

Information from industry professionals and site selection firms supports the significance of greenspace and trails for business development and attraction. Gaston trails will create a strong draw for young professionals choosing to reside in or relocate to the area.

ENVIRONMENTAL

The establishment of trails can restore natural corridors within already densely populated regions and preserve them in areas soon to be developed. This is particularly important in rapidly growing areas like the Charlotte region where substantial growth can be positive from an economic standpoint, but it places a very serious strain on the area’s natural resources such as water and air quality, open space and wildlife habitats.

If current growth trends continue, treasured natural areas will disappear as vast tracts of land are developed into urban areas in the next twenty years. It is critical that our communities band together now to help preserve natural areas for the health and sustainability of future generations.

Green space created by these natural corridors helps to mitigate storm-water runoff and encourages water table recharge. It also serves as a natural filter, trapping pollutants



from urban runoff, eroding areas and agricultural lands in order to keep our water supplies healthy.

Tree cover provided by these trails contributes to air quality by removing substantial amounts of particulate matter and carbon dioxide from the atmosphere. Trails also encourage non-motorized means of transportation, which can significantly reduce air pollutants derived from mobile sources. Gaston County is currently within a non-attainment area for ozone pollution under the federal Clean Air Act. Reducing overall vehicle-miles traveled (VMT) will help to decrease the amount of pollutants emitted that contribute to formation of ozone in the atmosphere. Projects like the Carolina Thread Trail will enhance the pedestrian environment and facilitate walking and biking, which is a critical component to meeting our emissions reductions target. The net benefits to the community are the reduced levels of VMT, which leads to reduced pollutants, thus making the air safer to breathe.

Greenways, trails and conservation corridors help to preserve habitat for many plants, insects and animals that are so important and unique to this region. Creative interpretation of specific environmental attributes throughout the trail system will educate the casual visitor and inspire continued environmental stewardship. Conserving the natural environment that surrounds us is an important piece of the legacy that we will leave behind for our children, grandchildren and great grandchildren.

CULTURAL

Because the emphasis is on empowering local communities and weaving them together, The Thread could be considered a "civic engagement project dressed in greenway clothes" and will help to build stronger communities in many ways.

The Thread will provide connections for adjoining neighborhoods and social centers such as schools, churches,

cultural institutions and other community facilities. It will help to reinforce the identity of neighborhoods through greenway design by incorporating public art, recognizing local history, and creating landmark open spaces.

As a free, accessible community asset, The Thread will offer opportunities for recreation and exercise to everyone, including children, youth and families who might not be able to afford them elsewhere. They also provide a safe place for people to experience a sense of community and create stronger social and familial ties.

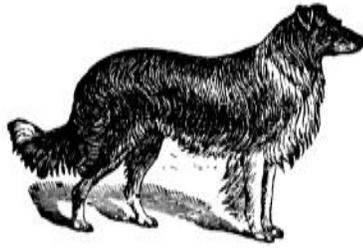
By preserving green spaces from development, The Thread will provide safe places for our children to play outside with others from surrounding communities and create awareness of each other, as well as of the natural world.

As a tangible project that links people and places, The Thread will encourage communities, leaders and municipalities to build partnerships. It will provide a framework and "pathway" for future regional initiatives and will encourage communities to act locally while thinking regionally.

TRANSPORTATION

Trails serve as highways for alternate means of transportation. As gas prices continue to rise, commuters are looking for transportation alternatives. If given the option, more people would use trails and greenways to commute. The Carolina Thread Trail and local Gaston County trails will give citizens this option.

According to a 1990 National Personal Transportation Survey, more than half of all commuter trips and three out of four shopping trips are less than five miles in length (ideal for bicycling), with forty percent of all trips being less than two miles. Persons who would ordinarily drive to these places will be presented with another mode of travel, thus helping to keep cars in driveways instead of on the road.



CHAPTER 3. EXISTING CONDITIONS

GEOGRAPHY OF THE STUDY AREA/LAND COVER

The county is centrally located within the Piedmont Plateau, which is between the foothills of the Appalachian Mountains and the coastal plain's sand hills.¹ Gaston County's eastern boundary is the Catawba River, separating it from Mecklenburg County. Lincoln County is to the north, Cleveland County to the west, and York County, SC borders to the south. There are 15 incorporated cities and towns in Gaston County, the largest being Belmont, Cramerton, Gastonia (County Seat), Lowell and Mount Holly.²

Early development in Gaston County occurred along the Catawba River and its tributary, the South Fork River, for agriculture and then for textile-related businesses.³ While the county has a rich farming culture, agriculture is a declining industry in the area. Only about 40 percent of land in Gaston County is still wooded or remains in open space.⁴

Mountain formations known as Monadnocks are an important aspect of the county's natural heritage as "most [of its biodiversity] lie atop the monadnocks and along creek floodplains."⁵ Monadnock by definition is "an isolated hill or mountain of resistant rock rising above an eroded lowland."⁶ Crowders Mountain is perhaps the most famous monadnock in Gaston County.

POPULATION

According to the U.S. Census, in 2000 there were 190,365 people living in Gaston County and in 2006 there were 199,397, which is a five percent increase in six years (Table 1). Sixty percent of Gaston County's population resides within incorporated areas.⁷ Currently, most growth is occurring in the eastern portions of the county that are nearest to the Charlotte metropolitan area, including Mt. Holly, Belmont and Cramerton.⁸

Relative to its neighbors, Gaston County is experiencing a moderate increase in growth. Of the counties in the metropolitan area, Union County leads the group in growth, at a 42 percent increase followed by York County at 26 percent. Otherwise, demographics for the region are quite similar. All of the counties are most heavily populated with white residents (average 76%), followed by African American (average 18%) and then Hispanic/Latino (average 7%) residents.

Regional growth may be attributed, in part, to the economic boom from the I-85 corridor and completion of the western portion of I-485; decreasing availability of affordable land in Mecklenburg County; expansion of the Charlotte Douglas International Airport; and increasing

Table 1:

A Demographic View of Gaston County and the Metropolitan Area

	North Carolina	Cabarrus	Gaston	Lincoln	Mecklenburg	Rowan	Union	York
Population	8,856,505	156,395	199,397	71,894	827,445	136,254	175,272	208,827
Population Growth Since 2000	10.0%	19.0%	5.0%	13.0%	19.0%	5.0%	42.0%	26.0%
Hispanic/Latino	4.7%	8.0%	5.0%	N/A	10.0%	6.1%	9.0%	3.0%
White	72.1%	81.0%	79.0%	N/A	60.0%	77.7%	82.0%	77.0%
Black or African American	21.6%	15.0%	14.0%	N/A	30.0%	15.0%	12.0%	19.0%

Source: US Census Bureau, 2006 American Community Survey



commercial/industrial businesses in Gaston County (following a decrease in manufacturing in recent decades). Quality of life draws some who want to live in small towns and gain employment and other opportunities of a nearby city.⁹ Nevertheless, some believe that “the physical barrier of the Catawba River has been a primary factor in Gaston County’s comparatively slow growth. Other reasons have included lower public school performance, longer distance to retail service and jobs, and an older housing stock.”¹⁰

Population trends across the county were mimicked in Gaston’s largest municipalities from 2000 to 2005. Increases range from zero percent to six percent. The City of Gastonia and City of Cramerton had the most growth, each experiencing a six percent increase in population. (Table 2).

Table 2:
Population Change of Gaston County’s Largest Municipalities

	2000	2005	% Increase
Belmont	8,794	9,124	4%
Cramerton	2,976	3,150	6%
Gastonia	66,355	70,243	6%
Lowell	2,662	2,662	0%
Mount Holly	9,617	9,835	2%

Source: The State Demographer’s Office, 1/2/2007

ECONOMY

An industrial boom in Gaston County began in the 1840s with three cotton mills, and today the county is still a leader across the country “both in the number of spindles in operation and in the number of bales of cotton consumed.”¹¹ Overall, thirty three percent of Gaston County’s employment is in the service sector, twenty six percent in manufacturing, twenty three percent in retail

and wholesale trade, and twelve percent in government.¹² The top ten largest employers in the county are Gaston County Schools, Caromont Health, Freightliner Mount Holly LLC (Manufacturing), Wix Filtration Corporation (Manufacturing), County of Gaston, Wal-Mart Associates, Inc., Pharr Yarns, Inc. (Manufacturing), American and Efird, Inc. (Manufacturing), Freightliner of Gastonia LLC (Manufacturing), and the City of Gastonia.¹³

The Gaston County school system is not only one of the top employers, but is also the “sixth largest school system in the State with an enrollment of more than 32,000 students.”¹⁴ There are also three colleges across the county: Gaston College, Belmont Abbey College, and the North Carolina Center for Applied Textile Technology.

The unemployment rate in 2006 was 5.5 percent, higher than most neighboring counties. At \$42,410, Gaston’s median household income is one of the lowest in the metropolitan area. Gaston’s poverty rate is within the top three among its neighbors at 9.9 percent (Table 3).

Table 3:
An Economic View of Gaston County and the Metropolitan Area

	Poverty Rate	Median Household Income	Unemployment Rate
Cabarrus	8.4%	\$49,562	4.1%
Gaston	9.9%	\$42,410	5.5%
Lincoln	11.3%	\$38,433	4.9%
Mecklenburg	8.4%	\$51,945	4.5%
Rowan	11.1%	\$42,863	5%
Union	5%	\$59,125	4%
York	8.4%	\$45,739	6.4%

Source: US Census Bureau, 2006 American Community Survey and the S.C. Association of Counties and the N.C. Department of Commerce – 2006 Unemployment figures



DEVELOPMENT TRENDS

The University of North Carolina Charlotte Urban Institute, a non-partisan applied research and community outreach center, found that the 15-county region surrounding Charlotte and including Gaston County is losing open space at a rate of forty-one acres per day. As mentioned above, only about 40 percent of land in Gaston County is still wooded or remains in open space.¹⁵ Most of the development occurring outside the cities and towns is single-use and auto-oriented;¹⁶ and in the last ten years it has been primarily along major roadway corridors.¹⁷

In the east, where there is the most development pressure, water quality is a concern. As impervious areas increase and vegetation is lost, storm water infiltration is limited and polluted run-off may threaten the Catawba River.¹⁸ In addition, Mountain Island Lake, the County's primary source of drinking water is located on the eastern border that is shared with Mecklenburg County.

EXISTING PARKS AND TRAILS

Both the county and individual municipalities provide park and recreation facilities for Gaston County. There are seventeen parks totaling over 600 acres; ten of these emphasize ball fields and walking tracks.¹⁹ Aside from a few city parks that have nature and hiking trails, Gastonia and Cramerton are the only municipalities with greenways/linear parks. Together these encompass 89 acres. Gaston County also has one trail segment that is three miles long.

In 2007, as part of the Gaston County park planning process, the county conducted a community survey. Respondents overwhelmingly articulated an interest in trails and greenways – both in using them now and having more of them in the future.²⁰ Their favorite park and recreation facility was the Avon/Catawba Creek Greenway.²¹ The top

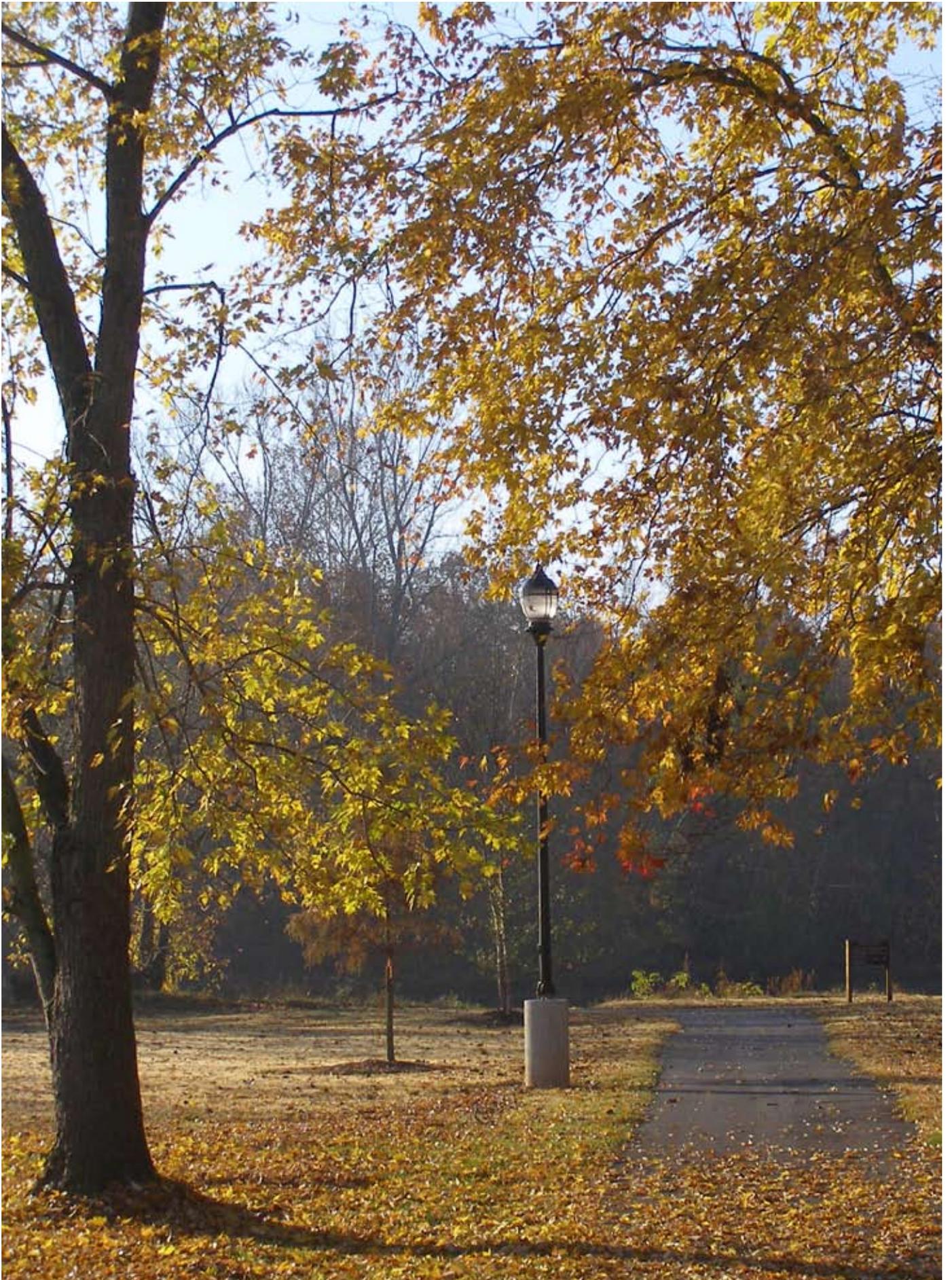
three recreational activities that respondents wanted the county to provide were: (1) walking, running and hiking trails, (2) bicycle trails, and (3) greenways/linear parks.²²

According to the Gaston County Parks and Recreation Master Plan adopted in 2007, when improving or expanding the county trail and park system, planners should be reminded that new residents may have moved from more urbanized places and have high expectations for parks and recreation services. Also, there are simultaneously more people who need free or inexpensive public parks and programs for leisure because there has been a trend of higher paying jobs leaving the immediate area.²³

Significant municipal activities related to parks and recreation – and particularly trails – are as follows:

The City of Belmont does not currently have any trails, but owns three neighborhood parks (totaling 62 acres) and two mini-parks (totaling 16 acres). Belmont's planning area includes the 450-acre Daniel Stowe Botanical Garden, a regional treasure not operated by the city.²⁴

The Town of Cramerton's park system contains mini parks, community parks, recreation centers and open space, including: Central Park, Lakewood Park, C.B. Huss Recreational Complex, and Riverside Park and Greenway. Short trail segments total 1.35 miles, comprised of Riverside Park and Greenway (1 mile) and C.B. Huss Recreation Complex walking trail (.35 mile).²⁵ Recently, Cramerton received approximately \$800,000 for a \$1 million project to cross the South Fork tributary and the Catawba River. The project will include two bridges: one to Goat Island and the other to 1.2 miles of trails to connect with other communities. This is one of several examples of a local trail project funded in part by the North Carolina Transportation Improvement Program.



Riverside Park and Greenway, part of the Carolina Thread Trail in Cramerton, NC



With coordination between Connect Gaston, the Mayor's Committee on Greenways, Sidewalks, and Bikeways and the City's Planning Department, **the City of Gastonia** constructed the 2.5-mile Avon/Catawba Greenway in 2001. On an average "good weather" day, the trail receives 200 visitors. Trail maintenance, including grass cutting, leaf blowing, trash pickup, repairs to furnishings, and maintenance of drainage facilities etc. is provided by a private contractor supervised by the city's code enforcement officer. The city is working now to add one mile to connect to Ferguson Park, and the city is finishing construction of its first rail-trail project. Phase I of the Highland Rail Trail begins at the City of Gastonia Police Department and extends north through the Highland Neighborhood to Marietta Street (approximately .62 miles). The city also owns and operates several parks, community centers, athletic fields, swimming pools, a baseball stadium and a municipal golf course.

The City of Mount Holly has 1.25 miles of trail near Mountain Island Lake as part of Mountain Island Park, a 45-acre park situated along the Catawba River at Mountain Island Lake Dam. The Parks and Recreation Department also operates two recreation buildings, several community and neighborhood parks and district parks. These include Catawba Heights Park (3 acres), Veterans Park (playground and picnic shelter), River Street Park (10-acre neighborhood park), Tuckasee Park (10-acre district park plus 30-acre park expansion set to be completed in 2009), Tuckasee Community Center, and Woodlawn Park (one-acre neighborhood park).

In 2003 Mt. Holly completed a visioning process that led to a public-private partnership with the Mount Holly Community Development Foundation, which is helping to raise dollars, design and implement a greenway system in

Mt. Holly. MHCDF hired Greenways, Inc. to complete the Mt. Holly Greenprint and the Catawba River Corridor Plan. Released in the spring of 2008, the latter is a master plan for a greenway through Mt. Holly.

Also located across the river from Mount Holly in Mecklenburg County and managed by a non-profit is the U.S. National Whitewater Center (USNWC), which is "the world's only multi-channel re-circulating man-made whitewater river." It is on the eastern edge of the Catawba River "approximately one mile north of I-85 and contains over 300 acres of woodlands, including mountain-biking and running trails, a climbing center, and a challenge course."²⁶ The United States Olympic Committee (USOC) has designated the center as an official Olympic training site and World Cup competitions and Olympic trials are held here.

The State of North Carolina operates Crowders Mountain State Park and the Mountain Island Educational State Forest in Gaston County. At 800 feet above the surrounding area or an elevation of 1,625 feet above sea level, Crowders Mountain is the highest point in Gaston County. The park offers boating, camping, and picnic shelters. The Mountain Island Educational State Forest straddles Gaston and Mecklenburg Counties. Once it opens, it will feature forestry best management practices through classes and exhibits for school children, forestry professionals, and the general public.

This plan seeks to highlight Gaston County's tremendous resources and rich history, and take advantage of its existing trails and some of its regional treasures as described in this section, to connect people to special places within the county and to neighboring counties.



COMMUNITY PLANS

Many of the planning documents from the local municipalities and Gaston County share open space and greenway goals. A common theme running through these documents is recognition that a connection exists between greenways/trails/open space and improvements to economic health, physical fitness, alternate modes of transportation and linking cultural and natural resources throughout the region.

An economic argument shared by many of the communities and articulated in Gastonia's Vision for a Healthy Community is that "young adult professionals in the growing creative/information economy show a preference for pedestrian and cycling trails," and that if the city desires "to attract this emerging 'Creative Class' [it needs] to offer the recreational venues they seek."²⁷ Several plans identify specific locations to begin or link trails systems, and some communities have established development regulations or standards that support increasing open space and greenways.

For example, Gaston County recently adopted a Unified Development Ordinance (UDO) with the purpose of raising "the standards for development in Gaston County by working with the municipalities to draft an ordinance that promotes more quality, uniformity, and consistency in the development standards."²⁸ The UDO encourages greenway development by requiring dedication of land for parks and open space by developers or a payment in lieu of land dedication. The UDO says that if the land developed is on a proposed greenway (in a locally adopted recreation plan, or greenway master plan), then the payment in lieu option shall not be available, and the land shall be dedicated.²⁹ Bessemer City was the first municipality to adopt the UDO in Gaston County, and it is currently under consideration by other local governments.

DESTINATIONS

Citizens of Gaston County currently drive, walk or bike to numerous destinations throughout the community. Whether it be from home to work, school or shopping, it is important to make these connections by way of the proposed county-wide greenway system. Through public input sessions that were held during this planning process, the following destinations were mentioned most frequently. A full list can be found in **Appendix I**.

Specific Destinations:

- Daniel Stowe Botanical Gardens
- U.S. National Whitewater Center
- Crowders Mountain State Park
- Mountain Island Lake Educational State Forest
- Schiele Museum
- South Fork River corridor
- Kings Mountain National Military Park/Kings Mountain State Park
- Dallas Park (Biggerstaff Park)
- Poston Park/Spencer Mountain
- Rankin Lake
- The Catawba River
- Gaston College
- Lineberger Park
- Estelle Rankin Forest

General Destinations:

- Downtowns
- Schools
- Public parks, and existing trails and greenways
- Historic areas
- Retail centers/services
- Neighborhoods
- Museums
- Libraries
- Waterways
- Natural areas
- Public transportation connections



CHAPTER 4. PROPOSED TRAIL NETWORKS

PLANNING PROCESS

What follows is a description of the planning process chronology for Gaston County communities that resulted in the recommended conceptual route featured in this plan.

January 2008: A steering committee with representation from the county; local cities and towns; and local environmental and cultural resource conservation organizations met to agree upon a process for developing cross-county trail connections and a preferred Carolina Thread Trail route in Gaston County that would maximize community input.

March - April 2008: There were four community listening sessions across Gaston County. Residents identified destinations they wanted to connect, explained what they'd like to see along trails, and voiced concerns. Namely they were interested in maximizing outreach and putting safe trail legs on the ground at a low cost and with willing landowners. **Appendix I** contains a summary of public input received.

April 2008: A technical team of local experts used GIS software to map alternative routes for trails. They sought to develop scenarios that would minimize concerns identified by residents, maximize connections identified in the community listening sessions, and provide equitable trail access to people of all backgrounds.

June 2008: Representatives from the surrounding counties were invited to view alternative scenarios and advise on the best way for trails to cross into neighboring counties. Meanwhile, volunteers worked in teams to groundtruth proposed segments where impediments and opportunities were not well known,³⁰ to assess whether these segments were aesthetically pleasing and physically feasible.

July 2008: Alternative scenarios were unveiled in two public open houses and participants were asked to recommend segments for inclusion in the Carolina Thread Trail route through Gaston County. Members of the public were also invited to view these scenarios at the Gaston County Planning office. Community survey results are summarized in **Appendix II**.

September 2008: The Gaston County steering committee evaluated community input and agreed upon preferred Thread Trail connections and other trails for Gaston County to recommend in this plan.

GREENWAY MASTER PLAN TRAIL ROUTES

Figure A (See page 63) represents all of the trails designated during this planning process. This map includes 265 miles of existing and potential trails to create a comprehensive network across Gaston County.

Figure B (See page 64) represents the trails that were considered to be regionally significant, therefore qualifying for the Carolina Thread Trail designation. Analogous to our highway systems, The Thread will develop as a "green interstate" focused on linking local trails and regionally significant attractions.

The proposed conceptual route featured in **Figure B** (See page 64) is the ¼ mile wide purple line that weaves 107 miles through the county and connects north to Lincoln County; south to York County, South Carolina; east to Mecklenburg County; and west to Cleveland County. The trail itself will be narrower, but this conceptual route includes an "opportunity" swath in recognition that as communities determine the exact location of their segments of The Thread, they will need alternatives that include public lands or property owned by willing landholders, including developers



who want to offer this amenity to their neighborhoods. The route through Mountain Island Lake Educational State Forest is subject to ongoing review and revision.

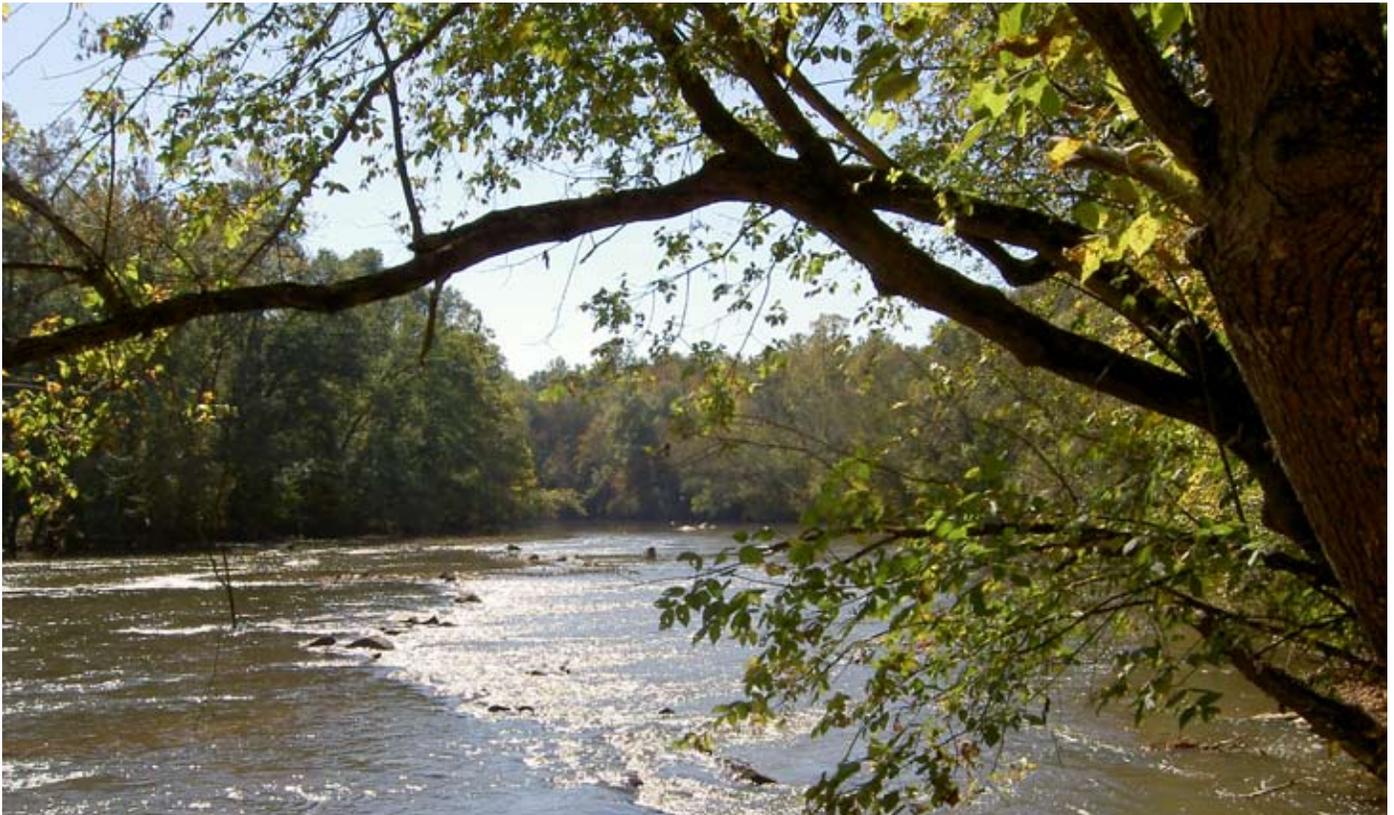
The trail connects seven regional destinations: Crowders Mountain State Park, Daniel Stowe Botanical Garden, Poston Park, Spencer Mountain, Mountain Island Lake State Educational Forest, the Catawba River, and the South Fork River. The Trail also serves about 10% of the schools in Gaston County (is within ¼ mile of 5 out of 54 schools).

This conceptual route includes about 3 miles of existing trails, and it incorporates 47 miles of trails that were already proposed by local governments in Gaston County.

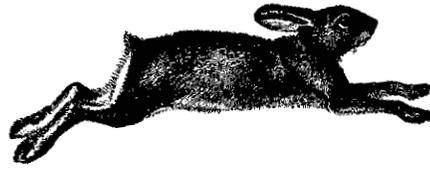
In sum, this map features about 57 miles of new

proposed trails. These are trail routes that are brand new to the county and municipalities within Gaston County. About 44% (25/57) would be along streams and river corridors, 38% (22/57) along existing bike routes and sidewalks, 9% (5/57) along utility rights-of-way, 7% (4/57) along road rights-of-way, and 2% (1/57) would be along rail corridors.

Of the 15 municipalities in the county, 9 would be connected by The Thread. Thirty-four percent of all county residents live within ½ mile of the proposed trail route (78,525 out of 231,270). About 33% of seniors and children live within that service area, and about 36% of low income households (defined as households with combined income of less than \$35,000 per year, based on 2007 census projections).



Along the South Fork River in McAdenville, identified as a top priority segment of the Carolina Thread Trail.



CHAPTER 5. RECOMMENDED ACTIONS FOR IMPLEMENTATION

This chapter details action steps for implementation recommended by the Steering Committee to Gaston County Communities. These recommendations are also summarized in **Appendix III**.

ADOPT THE PLAN

The adoption procedures vary from community to community depending on existing plans and policies. In each jurisdiction, the planning board (as applicable) should review and recommend the plan to its governing body, which in turn must consider, make additional adjustments as needed, and officially incorporate the trail into its land-use plans.

It is also recommended that the local Zoning, Subdivision, or Unified Development Ordinance be amended to ensure that, as developments are planned and reviewed, adequate open space and greenway corridors identified in this plan are protected. This would entail amending development regulations to have developers set aside land for trails whenever a development proposal overlaps with the proposed routes, as adopted. An analysis of the planning documents shows that the local governments repeatedly mention adopting policies to create incentives and regulations to promote the development of greenways.

Phase I (Plan Adoption)

Priority

Review and recommendation(s) by any municipalities' advisory Board(s)	High
Review and adoption of the Greenway Master Plan by the governing board(s)	High
Consider reviewing and amending the current zoning, subdivision, or unified development ordinance to require dedication of trail easements for new development	Medium
Consider reviewing and amending the floodplain ordinance to strictly limit the construction of structures in floodplains	Medium
Consider reviewing and amending the zoning, subdivision, or unified development ordinance to protect riparian buffer corridors	Medium
Consider reviewing the current open space and land dedication requirement(s) and payment in lieu policies/ordinances	Medium

High Priority- Within 1 Year

Medium Priority- Within 2-5 Years

Low Priority- Within 6-10 Years

BUILD PUBLIC SUPPORT

Leadership from individuals in Gaston County communities during the adoption and implementation campaign is essential to move the trail from concept to reality. These individuals will help advocate for the trail, and in their professional and personal capacity will seek out opportunities to utilize synergies with other projects, individuals and organizations to keep the trail as a priority in the ever-present competition for resources.

It is advised that the steering committee for the planning process be reconstituted as a Trail Advisory Committee and new leaders be invited to join, with an eye towards accomplishing the tasks that lie ahead. The Trail Advisory Committee should be a forum for leaders to convene periodically to discuss progress, share resources/tools, and otherwise coordinate trail planning and development activities. The group should brainstorm



specific benchmarks to track, and honor their completion with public events and media coverage. These benchmarks should be revisited and revised periodically. A subset of the group should coordinate a public information campaign to assist in celebrating these successes and otherwise raise awareness of the trail system and its benefits.

These leaders and other municipal and county participants are also encouraged to form partnerships with other organizations that can assist in identifying viable trail opportunities and working with willing landowners to build support and interest in trails and greenways. For example, the Gaston Arts Council can be a significant partner as it already helps facilitate programming through a variety of member organizations, linking the community to the county’s history and natural resources.

Phase II (Build Public Support)

Priority

Building off the existing steering committee developed to create this master plan, establish a Trail Advisory Committee to promote greenway development and advise the governing group on related issues	High
Conduct a public information campaign to advertise trail successes and future trail plans	Medium
Form partnerships with regional non-profit organizations that can move quickly to procure open space and trail opportunities	Medium
High Priority- Within 1 Year	
Medium Priority- Within 2-5 Years	
Low Priority- Within 6-10 Years	

COMPLETE TOP PRIORITY SEGMENTS

Once adopted by the county, towns and cities through which the proposed Carolina Thread Trail weaves, Carolina Thread Trail staff can assist communities as they develop implementation funding strategies, including potential catalytic Thread grants. The first step is determining which

segment to focus on. The Steering Committee suggests a prioritization, based on its understanding of trail creation readiness throughout the county as of the fall of 2008. With a caveat that more research is needed into feasibility and that circumstances are likely to change, the committee offers this list only as a first attempt to evaluate current opportunities across the study area.

With these caveats in mind, the committee encourages communities, as they adopt the Carolina Thread Trail into existing and new related plans, to consider focusing resources on developing the following segments:

First priority segments (26 miles total)

in no specific order:

- Along the South Fork River from Spencer Mountain south to I-85,
- From Cramerton to Downtown Belmont near Highway 7.
- Along the South Fork River from south of I-85 to connect with Cramerton,
- From Crowders Mountain toward Gastonia,
- Existing planned Highland Rail Trail, and
- From Highway 27 south to I-85 in Mount Holly.

Secondary priority segments (16 miles total)

in no specific order:

- From Rankin Lake Park to Spencer Mountain (near Long Creek),
- North of Mount Holly at Highway 27 along the Catawba River to the State Educational Forest,
- From US 29/74 north to Bessemer City, and
- From Belmont running north to Belmont Abbey College to connect to the Mount Holly Greenway.



Phase III (Prioritization) *Priority*

Review priority segments identified in the plan	High
Identify and maximize local trail opportunities through the development plan review process, open space acquisition, and floodplain regulations	Medium
Review current and future utility corridors/easements for local greenway opportunities	Medium
Establish criteria for trail priorities (i.e. cost, length of trail, location, conservation benefit, etc.)	Medium
Discuss and rank greenway priorities based on agreed upon criteria	Medium
Consider developing and recommending a multi-year, dedicated funding source to support greenway acquisition and stewardship	Medium
Consider developing an acquisition plan based on priority segments and the current Capital Improvement Plan (CIP)	Medium

High Priority- Within 1 Year
 Medium Priority- Within 2-5 Years
 Low Priority- Within 6-10 Years

IDENTIFY FUNDING

A funding quilt is the combination of funding sources—federal, state, local and private—that are brought together to help achieve trail acquisition and development. Eventually, a funding quilt will be needed to achieve the objectives outlined in this plan. This can include both public and private funding.

1. Private Funding

Private funding from individual donors and foundations may be available to supplement public funding sources. The Carolina Thread Trail organization, housed within the Catawba Lands Conservancy, is spearheading a private fundraising campaign to make seed dollars available to communities in the form of grants for not only trail planning, but also design, acquisition, and construction of individual trail projects that follow in the heels of the planning process. These, along with other potential

local funds, can provide catalytic dollars that communities will weave into a funding quilt.

2. Public Funding

a. Federal Funding Options:

Federal programs are described in **Appendix IV**. Trail-related programs appear at the top of the list, and many other programs are included that do not relate directly to trails but may be used to help fund trail creation in certain instances. They are all administered by federal agencies but vary in how funds are delivered for on the ground trail projects. For example, some of these program funds are directed to the states, which in turn decide what projects to fund, while other program funds are granted by a federal agency through a competitive process. In still other cases, Congress may “earmark” funds for individual projects. The descriptions provided are meant to provide a broad overview of funding sources.

b. State Funding Options:

Most statewide conservation funding comes through four major trust fund programs, which are summarized in **Appendix V**. Gaston County and its cities and towns have had fairly good success in garnering state funds from these North Carolina conservation trust funds. In particular, the State Parks and Recreation Trust Fund has awarded 11 grants in Gaston County over the past decade totaling \$4.5 million (See Table 4). Nevertheless, North Carolina’s Conservation Trust Fund has a state-funding shortfall where more than half of the applications received are not funded. Areas with more local matching funds are more likely to receive money from the Trust Funds.³¹



Table 4:

North Carolina Conservation Trust Fund Grants Awarded in Gaston County (1997-2006)³²

<i>Year</i>	<i>Project</i>	<i>Amount</i>	<i>Fund</i>
1991	Crowders Mountain State Park	\$623,000	Natural Heritage Trust Fund
1997	Gastonia - Acq and Greenway/Cataba Ck	\$347,000	Clean Water Management Trust Fund
1997	Crowders Mountain - Linwood Road Access (Design)	\$18,430	Parks and Recreation Trust Fund
1997	Crowders Mountain - Visitors Center Exhibit Funds	\$160,000	Parks and Recreation Trust Fund
1997	River Street Park	\$30,389	Parks and Recreation Trust Fund
1998	Crowders Mountain - Linwood Access Construction	\$165,870	Parks and Recreation Trust Fund
1999	Restoration & Stormwater/Dubarts Ck Trib	\$36,000	Clean Water Management Trust Fund
1999	Crowders Mtn. S.P. - Kings Mtn Conn.	\$1,800,000	Natural Heritage Trust Fund
1999	Crowders Mtn. S.P. Connector	\$700,000	Natural Heritage Trust Fund
1999	Crowders Mountain	\$1,286,000	Parks and Recreation Trust Fund
1999	Cramerton Sports Complex	\$214,830	Parks and Recreation Trust Fund
1999	Martha Rivers Park	\$250,000	Parks and Recreation Trust Fund
1999	Gastonia - Water's Edge Tract Acq/Mountain	\$1,000,000	Clean Water Management Trust Fund
2000	Gastonia - Catawba Ck Tributary Restoration	\$219,250	Clean Water Management Trust Fund
2000	NC Div Forest Resources - Educational Forest	\$100,000	Clean Water Management Trust Fund
2000	Bessemer City - Decomission WWTP and Reroute	\$2,000,000	Clean Water Management Trust Fund
2000	Crowders Mt. S.P. (Kings Mt. Connector - II)	\$243,000	Natural Heritage Trust Fund
2000	Crowders Mountain State Park - Land 150 acres	\$600,000	Parks and Recreation Trust Fund
2000	Tailrace Park	\$49,813	Parks and Recreation Trust Fund
2001	Catawba Lands Cons - Buck & Smith tract/8	\$166,000	Clean Water Management Trust Fund
2001	Catawba Lands Cons - minigrant	\$25,000	Clean Water Management Trust Fund
2001	Crowders Mountain State Park - Exhibits	\$85,000	Parks and Recreation Trust Fund
2001	Crowders Mountain State Park	\$1,700,000	Parks and Recreation Trust Fund
2002	Stormwater/Gastonia	\$244,000	Clean Water Management Trust Fund
2002	Rhyne Farm	\$24,000	Farmland Preservation Trust Fund
2003	Catawba Lands Cons - Friday Farm Tract/Holy	\$16,000	Clean Water Management Trust Fund
2003	Catawba Lands Cons - Anderholt Tract, S. Fork Catawba	\$343,000	Clean Water Management Trust Fund
2003	Crowders Mountain State Park	\$50,000	Parks and Recreation Trust Fund
2003	Gastonia - Smyre Millenium Park	\$100,688	Parks and Recreation Trust Fund
2003	Cherryville - Piedmont Eques. Park and Conf. Center	\$250,000	Parks and Recreation Trust Fund
2004	Catawba Lands Cons. - Riverbend Preserve	\$273,000	Clean Water Management Trust Fund
2004	City of Mount Holly - Upper Lumber Tracts	\$2,666,000	Clean Water Management Trust Fund
2004	Lowell - Rankin Park Renovation	\$43,236	Parks and Recreation Trust Fund
2004	Cramerton - Cramerton Greenway Phase II	\$130,935	Parks and Recreation Trust Fund
2004	Crowders Mountain State Park	\$1,578,249	Parks and Recreation Trust Fund
2005	Catawba Lands Cons - Cloninger Tract	\$154,000	Clean Water Management Trust Fund
2005	Catawba Lands Cons - Jack Moore Nature Preserve	\$461,000	Clean Water Management Trust Fund
2005	Crowders Mountain	\$140,000	Clean Water Management Trust Fund
2005	Belmont - Stowe Park Renovation	\$235,894	Parks and Recreation Trust Fund
2005	Cherryville - Ballard Park Expansion	\$375,000	Parks and Recreation Trust Fund
2005	Bessemer City - City Pool Expansion and Ren.	\$500,000	Parks and Recreation Trust Fund



a. Local Funding Options:

Generally, there are three primary types of revenue sources available to local governments in North Carolina to pay for parks and trails: discretionary annual spending; creation of dedicated funding streams; and debt financing. The financing options utilized by a community will depend on a variety of factors, such as taxing capacity, budgetary resources, voter preferences and political will. The ability

of local governments to establish dedicated funding sources also depends upon state enabling authority. North Carolina has given local governments a limited number of options to fund land conservation and trail projects. The specific finance options available to Gaston County are listed in Table 5 and described in **Appendix VI**. See also **Appendix VII** for a full list of successful conservation finance measures in North Carolina.

Table 5:
Local Conservation Financing Options in North Carolina

<i>Method</i>	<i>Definition</i>	<i>Pros</i>	<i>Cons</i>
General Obligation Bond	Loan taken out by a city against the value of the taxable property	<ul style="list-style-type: none"> •Allows for immediate purchase of open space, locking in land at current prices •Distributes the cost of acquisition 	<ul style="list-style-type: none"> •Extra interest costs of borrowing •Funds may be used only for capital projects and improvements •Voter approval required
Property Tax	Tax on real property paid for by commercial and residential property owners	<ul style="list-style-type: none"> •Steady source of revenue •Relatively easily administered •Tax burden fairly broadly distributed •Small increases create substantial funding 	<ul style="list-style-type: none"> •Competition for other public purposes •Overall concern among taxpayers about high rates •Cannot be permanently dedicated
Impact Fee	One-time fee paid by developer to off-set costs of infrastructure caused by new development	<ul style="list-style-type: none"> •Nexus between taxing new development and protecting remaining open spaces 	<ul style="list-style-type: none"> •Projects must be directly linked to new development
Real Estate Transfer Tax	Tax that may be imposed on the privilege of transferring real property	<ul style="list-style-type: none"> •Is a familiar tool for land conservation 	<ul style="list-style-type: none"> •Unpredictable source of revenue •May have opposition from Realtor community •Revenues may not be restricted
Local Sales Tax	Tax levied on the retail price of an item	<ul style="list-style-type: none"> •Distributes the cost of acquisitions 	<ul style="list-style-type: none"> •Unpredictable source of revenue •Relies on the strength of the local economy •Revenues may not be restricted



Phase IV (Identify Funding Sources)	Priority
Pursue all avenues of grants from state, federal and non-governmental funding sources	High
Consider local bonds to pay for greenway acquisition, design, construction, and maintenance expenses	Medium
High Priority- Within 1 Year	
Medium Priority- Within 2-5 Years	
Low Priority- Within 6-10 Years	

EVALUATE LAND OR RIGHT-OF-WAY ACQUISITION OPTIONS

Methods of land acquisition could include any of the following:

Donations – land or easements (the right to use a portion of land for certain purposes, as defined in a contract, while fee simple ownership is retained) can be donated to a local government or a local land trust by private citizens or business owners, which in turn can generate a tax reduction for them. Details should be confirmed with a qualified tax advisor.

Purchase – this method is probably the most common method of acquiring land, and land trusts can often help acquire land at less than fair market value.

Zoning/Development Regulations – buffers along certain stream corridors in North Carolina are already protected in order to prevent building intrusion into sensitive areas which in turn may be used for some trail corridors. Additional development regulations can also be adopted that create building restrictions and dedication requirements. Examples of these requirements include, but are not limited to, setbacks from perennial streams, floodplain development restrictions and open space/trail dedication requirements.

Developer Contributions – Once the conceptual route in Figure A (See page 63) is officially incorporated into

community plans, it can be included in GIS layers for local governments. As discussed previously, if a developer applies for a permit for a development and it overlaps with any of the proposed trail connections, local governments can require or offer incentives for an open space set aside or for that portion of the trail corridor to be developed as part of the subdivision approval process. The trail will be a marketing benefit to the developer and will in turn allow them to charge a higher premium for the homes adjacent to the trail. This sets up a win – win situation for everyone involved.

Abandoned Rail Corridors – Discussions will need to be held with the rail corridor owners as well as NC DOT Rails Division. The cost of trail construction is typically lower along abandoned rail corridors because a graded corridor with gradual slopes is already established.

Phase V (Acquisition)	Priority
Approach property owners about potential voluntary easement(s) or property donations based on the established priorities	Medium
Negotiate with property owner(s)	Medium
Retain control of the desired trail corridor	Medium
High Priority- Within 1 Year	
Medium Priority- Within 2-5 Years	
Low Priority- Within 6-10 Years	

DESIGN, CONSTRUCT AND MAINTAIN TRAILS

Once a trail segment is selected and land acquired, trail design typically follows. It will be essential for communities to determine the intended use(s) of a particular segment and design with that in mind. Designing for safety and for affordable maintenance is also highly recommended.

Intended uses of the trail will dictate the surface material to be used and will have a direct bearing on the construction and maintenance costs. The Gaston County



communities’ planning process revealed that in general, people are most interested in walking, biking, enjoying quiet time, hiking, dog walking, and accessing waterways (in that order). A subset of folks who participated were also very interested in equestrian-friendly trails. So, if the trail segment were going to be a multi-purpose trail for walkers, bikers, and horseback riders, then a surface material of either crushed limestone or granite screening would be the preferred choice.

Trail construction costs will vary, and until a project is put out for competitive bid, there is no way to accurately determine local prices. A competitive bid process should ask for the cost of trail construction using the three most common trail construction surfaces (granite screening, asphalt, and concrete) in order to fully understand the costs and potential savings when making a decision between one building material over another.

Preliminary site plans should be reviewed by all staff members, including emergency service personnel, so they can offer suggestions, guidance, and have their voices heard from the very beginning. There is sometimes a disconnect between the designer and operating staffs. Designs that are pleasing to the eye are not always conducive to good and inexpensive maintenance. Therefore, it is imperative that cost saving should be a part of any design with a thorough review of the plans while they are still in a preliminary stage.

Security starts in the design phase as well. There is much that can be done in designing a trail system that greatly reduces the risk of crime. Security experts such as the local police chief or county sheriff should be consulted early on in order to seek their advice and to alert them that the trail will be built and that they need to plan for it as well. Well placed lights, wide-open spaces along the trail, removal of underbrush, and easily accessible trailheads all add to

the security matrix. Routine patrols and staff members in uniform will alert people that the trail is being watched. Security tips and procedures can be conveyed on bulletin boards, on brochures and in informal gatherings by park staff along the trail.

Phase VI (Design, Construction, and Beyond) *Priority*

Coordinate with local law enforcement and emergency services on the trail design and safety	High
Develop a long-term maintenance plan	High
After the corridor is acquired proceed with the following steps	
Survey the desired trail segment	Medium
Complete and approve construction drawings	Medium
Bid the trail project and select the contractor	Medium
Oversee completion of work by contractor	Medium
Consider planning and executing a trail ribbon cutting/Grand Opening	Medium
Coordinate with volunteer groups to maintain the trail facilities	Medium

High Priority- Within 1 Year

Medium Priority- Within 2-5 Years

Low Priority- Within 6-10 Years



Poston Park, Gaston County (Source: Calvin Styles)



CHAPTER 6. CONCLUSION

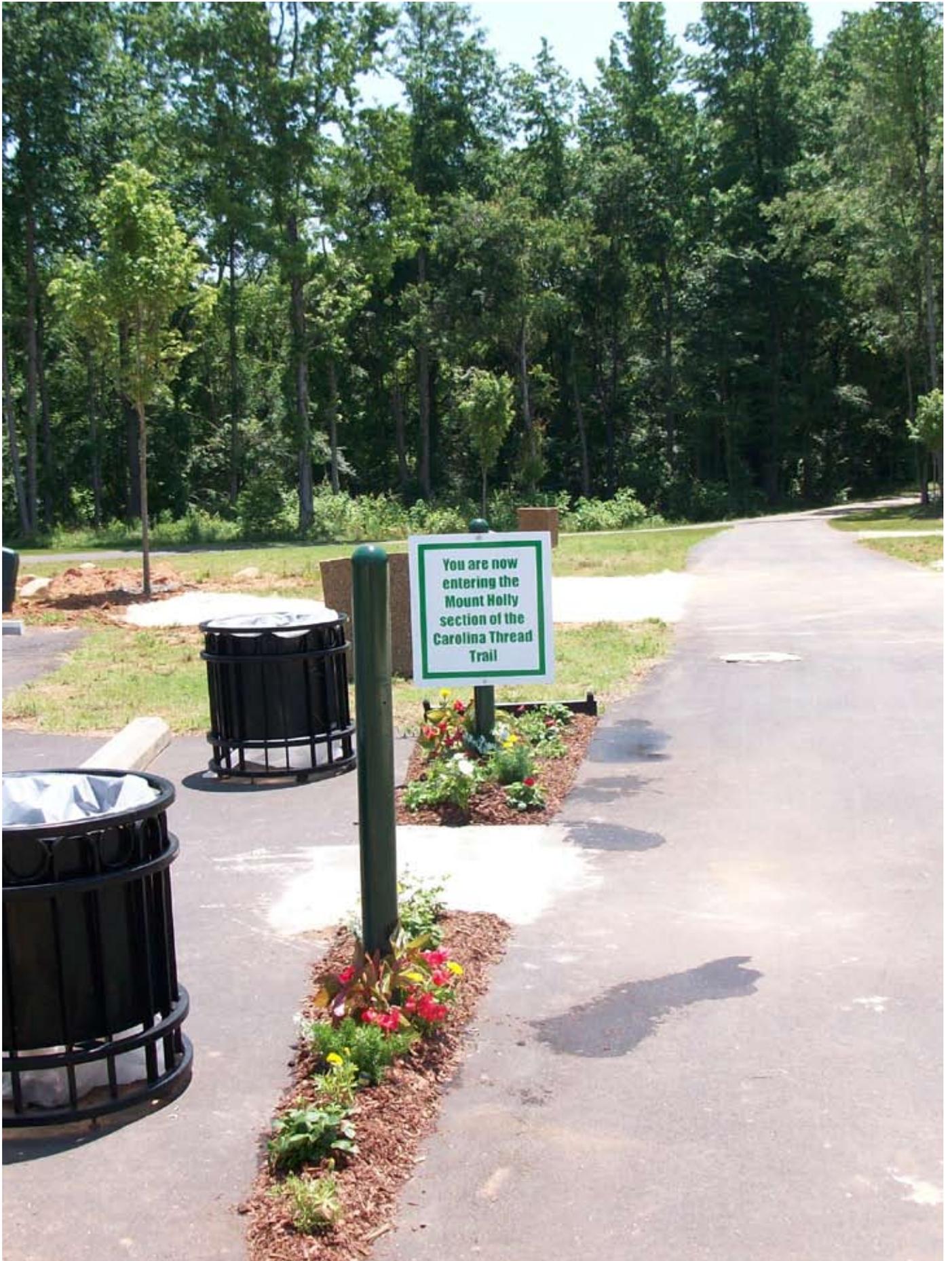
Through a collaborative planning process community members in Gaston County articulated a sense of place and showed excitement about honoring special landscapes and destinations for economic, psychological, cultural and health reasons by connecting them and interacting with them on foot, on horseback, on bicycle and other modes. Given the rate of growth in Gaston County, this proposal is not for a luxury good but a necessary good.

This report outlines an ambitious plan for developing

a comprehensive network of trails across Gaston County. The many community partners who have been involved in the planning process recognize the urgency of starting a county-wide and region-wide linear park system now, while opportunities still exist for making connections and linking important places. They also recognize that this plan will not be implemented overnight, and that while segments should begin appearing soon, it will take years, if not decades, to link them all together. The time to start is now.



Downtown Belmont/Stowe Park — a priority segment of The Thread in Gaston County



Tuckaseege Park, Mount Holly, NC



APPENDIX I: CAROLINA THREAD TRAIL PUBLIC MEETING SUMMARY

Gaston County public listening sessions for the Carolina Thread Trail were held at Belmont Abbey on March 25, Schiele Museum on March 26, Tabernacle Baptist Church on March 31 and Bessemer City Hall on April 22. More than 80 people participated.

Input from these sessions is summarized below. Items mentioned most frequently appear near the top of each list. This public input may guide our steering committee in selection of alternative routes, shape the development of portions of greenway plan (e.g. statement of priorities/identification of themes and concerns) and provide ideas for design guidelines and other Carolina Thread Trail activities.

QUESTIONS AND RESPONSES:

1. *How do you want to use trails now or in the future?*

A. Active Uses

- biking
- walking (including places for retired people to walk)
- hiking
- horseback riding
- dog walking
- running
- rollerblading/skating
- birding
- fishing access
- mountain biking
- taking pictures – need picturesque areas (panoramas)

B. Active or Passive Uses

- safe transportation alternatives (e.g. those without a vehicle could travel to another city, work and other important destinations; children

could walk to school)

- educational opportunities/nature learning
- outdoor and nature experiences
- emotional, spiritual and/or psychological benefits
- conservation
- handicapped-accessible (e.g. should have no more than 3% grade, etc. for ADA compliance)
- have fun
- inspiration
- see historic sites
- access waterways

C. As Host/Venue

- biodiversity
- campsites on trail
- no ATVs or other motorized vehicles (except vehicles for the handicapped)
- reflective places

D. Other Uses/Benefits

- exercise and good health
- community connection - social/connectivity/ community spirit
- family participation/family bonding
- for development, building near it/tie new development to trail
- economic development and tourism
- relaxation
- quality of life
- incorporate existing trails
- conserve natural corridors
- scenic values of visible greenways (not always in backyards)
- destination point



2. What important places should be part of the Carolina Thread Trail system?

A. Specific

- US National Whitewater Center
- Daniel Stowe Botanical Gardens
- Crowders Mountain State Park
- Mountain Island Lake State Education Forest
- Schiele Museum
- South Fork River Corridor
- King's Mountain
- Dallas Park (Biggerstaff Park)
- Poston Park/Spencer Mountain
- Rankin Lake
- Catawba River
- Gaston College
- Lineberger Park
- Estelle Rankin Forest

B. General

- downtowns/municipalities
- schools
- public parks (One person said, "to take advantage of lands that are already being protected." Another said, "connect to active parks and ballfields.")
- historic areas (e.g. Belmont Abbey, St. Joseph's Church, and Mt. Holly Cotton Mill, check Belmont Historical Group for list of others)
- retail centers/shopping/restaurants
- neighborhoods/housing
- museums
- libraries
- waterways (one person mentioned connecting to private lakes in the area)
- natural areas that should be preserved

- conservancy lands
- existing trails/greenways
- connection to public transportation (e.g. trains and buses)
- access points that serve all ages, including elderly (nursing homes and other places where seniors live)
- camping areas
- scenic areas
- hospital/medical facilities
- get to Gastonia from Lincoln
- neighboring counties, e.g. Lincoln and York Counties
- hikes in natural spaces
- farmlands and forests
- smaller communities
- YMCAs
- hotels
- moderate-income townhouse development
- active adult communities near trail
- new parks (organic?)

3. What do you want to see along the way?

A. Amenities

- picnic spaces
- bike racks (preferably covered)
- restrooms/facilities
- parking, bus stops and public transit
- benches
- playgrounds
- drinking water
- garbage disposal
- camping
- wi-fi



- cross-country team facilities
- mountain biking trails
- public art (keep graffiti potential in mind)
- exercise stations
- encounter water along the way
- pet waste stations
- emergency call system

B. Signage

- emergency response markers
- nature information

4. *What are your community's attitudes and concerns about greenways generally and about the Carolina Thread Trail concept specifically?*

A. Design/Location

- width of trail and surface of trail to accommodate multiple uses
- access points and parking on and off the trail
- shared use compatibility
- minimal impact to sensitive habitats
- design compatibility between jurisdictions
- handicap accessibility
- well-marked and signed
- safe road crossings
- emergency, safety and medical accessibility
- connectivity to various communities and other designations

B. Ownership

- Who would own and maintain the trail?
- Private property shouldn't be condemned or landowners otherwise forced to share land for the trail.

C. Safety

- Law enforcement will need to be involved in the security planning, such that patrolling will

done for general safety and to be sure that trail rules are followed.

D. Cost/Maintenance

- How will the trail be paid for in the short- and long-term?
- When maintenance is needed and who will be responsible?

E. Timing/Outreach

- Many participants eager to see legs of the trail constructed or otherwise designated
- Want to raise awareness about the trail.

F. Positives

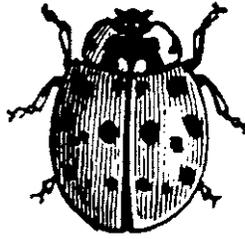
- Excitement about setting a precedent for providing an alternative form of transportation and multi-modal recreation
- Making parks, recreation and conservation a priority
- Anticipated benefits to quality of life.

5. *Additional ideas/suggestions offered by participants that did not fit into the categories above*

- Have developers put greenways through subdivisions so that there is access for more people.
- Clubs/civic groups/college students/other associations could be involved.
- Suggest creating a symbol that indicates that there is a big group collectively working on this (stickers for cars, etc.)
- In Gaston County, need support from Carolina Thread Trail of existing projects and tie those and future greenways together
- Would like to create a model for Carolina Thread Trail for other areas and counties to see



Avon/Catawba Creek Greenway, Gastonia, NC



APPENDIX II: CAROLINA THREAD TRAIL PUBLIC OPEN HOUSE SUMMARY

Gaston County open houses for the Carolina Thread Trail were held between 4:00 and 8:00 pm on July 17th and July 21st at the Citizens Resource Center in Dallas and Gaston College's East Campus in Belmont. There were additional drop-in sessions at the Gaston County Planning Office between 2:00 – 5:00 pm on July 23, 24, 25, July 29 and July 31. Over 70 people attended the open houses and drop-in sessions.

These sessions were designed to give the public an opportunity to view preliminary concept routes for where the Carolina Thread Trail might cross Gaston County and offer input and comments. Carolina Thread Trail staff, The Trust for Public Land staff, and Gaston County Carolina Thread Trail Steering Committee members were present to explain the process to date and introduce visitors to the map showing alternative routes. All visitors were asked to fill out a short survey. Seventy-two surveys were received, and they were analyzed to inform route selection and other aspects of the Gaston County Communities' Master Carolina Thread Trail Plan. The survey responses are summarized in the following paragraphs.

COMMUNICATIONS AND OUTREACH

The first survey question was: "How did you find out about the Carolina Thread Trail?" Respondents could check all that applied. Seven (7) people learned of Carolina Thread Trail through the newspaper, 33 had attended a previous related meeting, and 39 selected "other." The "other" explanations included:

- hearing from a steering committee member, Catawba Lands Conservancy staff, or DOT staff (8),
- receiving emails (6),
- finding out from a family member, a co-worker or a friend (6),
- already being in the building when the open house or drop-in session was occurring (6),
- learning through the Mt. Holly FROGS network (5), or seeing a posting on the internet (2).

FAMILIARITY WITH GREENWAYS AND TRAILS

Sixty-nine (69) people responded to the question asking whether they had ever been on a greenway/trail before. (There were 3 non-responses.) Overall, 7/69 (10%) had never experienced a greenway or trail. Only one of the open house participants had never been on a trail before.

SEGMENT POPULARITY

Seventy-one (71) people responded to this question: "The Thread is intended to be the backbone for the city, town and county trail system. With that in mind, which of these segments is most important as part of the Thread? Please check up to 10 from this list of 31." (There was 1 non-response.)

These are all popular segments in the sense that at least 1 in 3 respondents voted for them. See **Figure C** (on page 65) highlighting these segments:

- The most popular segment was K, which received 53 votes (75% voted for K).
- J and N tied in second with 46 votes (65% selected these two).
- L was next with 38 (54% picked L).
- C and M tied with 34 votes (48% selected these two).
- Six received a range of support, from 44% in favor down to 34%: B at 31%, H at 29%, DD at 27%, G at 26%; and F at 24%.

The rest of the segments received 17 or fewer votes, which means that less than 25% of those surveyed considered them to be the "most important" segments. Note that E, D, A and I were also part of the "highlighted scenario" (this is the draft route for a Carolina Thread Trail designation), representing two potential north-south connections into Lincoln County. However, they received very few votes. I received 17 votes; D garnered 13; A got 12 votes; and E barely 6.



Analysis for steering committee consideration:

The surveys confirm strong public support for the highlighted segments in the eastern portion of the county running roughly north-south (largely along rivers and connecting population centers), and the highlighted segments running roughly east-west through the center of the county and into York County south of Crowders Mountain State Park.

It is important to observe that several highlighted connections, especially the segments routes that run north-south from the center of Gaston County to connect with Lincoln County did not receive much public support based on these surveys. These are the A-D-E alternative that passes through Cherryville and the I alternative that passes through High Shoals. Note, however, that open houses were not held in these areas of the county, which could explain the lower popularity of these particular segments. Indeed, our analysis show a bias that respondents typically selected segments closest to where they live for Carolina Thread Trail designation (see below), and the open houses naturally drew people from the area where the open houses were held.

In terms of additions to the Carolina Thread Trail route for Gaston County, the steering committee could consider adding DD, but it runs parallel and near to N, and only one of the two should ultimately be selected for Carolina Thread Trail designation. N received support from 65% of respondents and DD from 38%.

LIKELY TRAIL USE

The survey asked respondents to select (from a list that was generated in the previous community listening sessions) the 5 activities they would enjoy doing the most on The Thread and rank them from 1 to 5 with 1 being what they would do most often. 70 people responded to this question.

Ten (10) respondents did not rank their selections (in those instances, all responses were coded as a "5"). The most frequently selected activities were:

- Walking (55 votes; 79%),
- Biking (46 votes; 66%),
- Enjoying quiet time (34 votes; 49%),
- Hiking (32 votes; 46%),
- Dog walking (26 votes; 37%), and
- Accessing waterways (24 votes; 34%)

The three least frequently selected activities were: rollerblading/skating (1 vote); horseback riding (4 votes); and fishing (7 votes).

Respondents often ordered the following activities at the top of their lists: walking, running, and biking.

PROXIMITY TO TRAIL

All but one person indicated how far they live from one of the proposed Carolina Thread Trail segments (highlighted in purple or yellowish-green on the map). Answers were as follows:

- 13 respondents live adjacent,
- 35 live between ¼ mile and 2 miles,
- 12 live 2-5 miles from a segment,
- 4 live 5-10 miles away, and
- 4 live more than 10 miles from any segment.

Bias analysis for steering committee consideration:

To test whether people selected trail segments that were closest to where they live, we specifically asked them to identify which segment was nearest their home and then cross-referenced this answer with their "important segment" selections. Four (4) people did not identify the closest segment. Out of 68 respondents, all but 4 identified the segment closest to their residence as among their most "important" segments. (Based on the comment sections of the survey, it appears that those four are trail supporters.)



Responses to these questions confirmed our hypothesis that people tend to favor segments closest to where they live for Carolina Thread Trail designation, reminding us to be careful when considering the value of the “important segment” portions of the surveys, since they are biased by where we held the open houses and the convenience interests of those who participated.

CAROLINA THREAD TRAIL SENTIMENT

When prompted with a yes/no question, every person but two (70) indicated that they believed The Thread would increase the quality of life in their community. One respondent said he wasn’t sure and clarified his response with this comment: “It would depend on the ‘crowd’ which would be drawn to it. Rowdy or calm and kind?” Another said there would be no impact and explained: “If it was there it would be used by some but I don’t believe there would be great use in my area.”

Many people articulated the common benefits of trails: recreation, health, nature, economic, community interaction, alternative transportation mode, etc. What follows are some direct excerpts from the surveys as to why the Carolina Thread Trail would increase the quality of life in the community:

“Free, easy access to walking/hiking trails would be good for everyone.”

“Recreation, transportation, community connectivity, fitness, and helping to make our area a prime destination are just a few of the benefits we will realize, not to mention economic benefits which could be huge.”

“I enjoy seeing people out running and exercising, helping create a healthy community. A physically healthy community and a financially healthy community both go hand in hand. It’s evidenced across America.”

“I think greenways add to a community’s sense of connection. To a person’s physical well-being, spiritual, and emotional health. Anything to get people outdoors easily will increase wellness.”

“As our area is rapidly urbanizing it is absolutely vital that we set aside and build these greenways now. The ability to have convenient, pleasant and safe recreation nearby will be a major plus for our communities in attracting clean, high-quality, and upscale employers to our area.”

“Gaston County needs more opportunities to enjoy the great outdoors.”

“I have seen it work well in Minneapolis, St. Paul and area, Brunswick, ME and East Coast Greenway in RI... I see only an increase in the quality of life. I see connectivity among cities and towns. I see positive feedback from people living along the greenways.”

“The trail will raise property values, activity levels, aesthetics, environmental awareness, natural habitat — what’s not to like?”

“Land preservation and access to exercise opportunities creates community cohesion, beautifies the area. In my opinion, there is absolutely nothing about the Thread that would decrease quality of life. It will only enhance living in the area. It will be a boost to cultural amenities, the business sector and give all people, especially children, more opportunities.”

ADDITIONAL COMMENTS

A number of respondents mentioned that they are eager to see Carolina Thread Trail move forward and included encouraging words about the process to date. Only a few people mentioned concerns besides urgency; they each wrote about safety. One noted that emergency services should be available. Another advised, “Make sure



the greenway is in the front yard at points along its length. Visibility makes people feel safe, even if it's just periodic." A third person thought that money would be better spent on ballfields and play areas associated with schools, and that trails aren't well-suited for rural areas because they disrupt the rural landscape and would be unsafe.

Some people gave opinions as to which segments should be prioritized, such as the following:

"Connection to Belmont's new riverfront park at Catawba River bridge could be part of the Carolina Thread Trail or perhaps a connecting trail built by the city of Belmont." (A couple of respondents mentioned this. See, e.g. next comment.)

"Explore connection with Belmont City Park south of Wilkinson. Possibility of loop — M, N, DD — connecting Belmont, Cramerton and Garden already used by cyclists and runners."

"The best possible connection across the Catawba river in NC is along the proposed and soon to be actual Mt. Holly model greenway. The FROGS of Mt. Holly believe a connection from the Whitewater Center to Tuck Park is very possible. Keep in mind that Mt. Holly is negotiating with Mecklenburg about a new sewer plant on the Mecklenburg side. If this were to happen your bridge will be built."

"The whole system is a phenomenal idea and will have a great impact on Central North Carolina. I feel as part of the FROGS of Mt. Holly and the Mt. Holly CDF, the most crucial part of this plan, especially for linking both sides of the Catawba River is sections L and K. We have put much time and heart into laying the plans for this section and are excited about your support and plans. I also feel this section will help bring a link across the river with a pedestrian bridge, another essential part, and could be one of the highlights to the whole system. Joel Lineberger. NOTE: L is already in progress in planning and such." (Several people

mentioned the importance of a bridge crossing the Catawba and connecting Mt. Holly to Mecklenburg's greenway system.)

"I have personally been working to make the Catawba River Greenway a reality. By next year we hope to be under construction on its Southern leg: Tuck Park (Mt. Holly) to the New Citizen's Center. Very pleased that the entire Catawba River Greenway (Stowe YMCA to State Educational Forest) is included in the proposed plan for Gaston County."

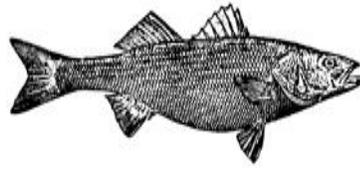
"Segment L should be used as a pilot/demonstration greenway."

"While I understand that only segments of the Thread Trail can be equestrian friendly, I believe that many, many people would use those segments - especially if great care is taken to connect the already existing equestrian trails, i.e. Kings Mountain State Park, Crowders Mountain State Park, different points near Cherryville, Dallas (especially Biggerstaff park, there are stables there) and Bessemer City."

"If funds are limited (and they are), then I think that the trail should first focus on areas where the greatest number of residents are within walking or biking distance."

"Utilization of existing trails are extremely important and connecting town centers/urban areas to the trail provides the opportunity to improve the economies of small towns while linking already developed recreational areas to the trail."

"With Goat Island and access to the waterways, I think Cramerton is a natural when it comes to finalizing your route. Good luck with the decision making. My family looks forward to using the new trails wherever they may exist."



APPENDIX III: SUMMARY OF RECOMMENDED ACTION STEPS FOR IMPLEMENTATION

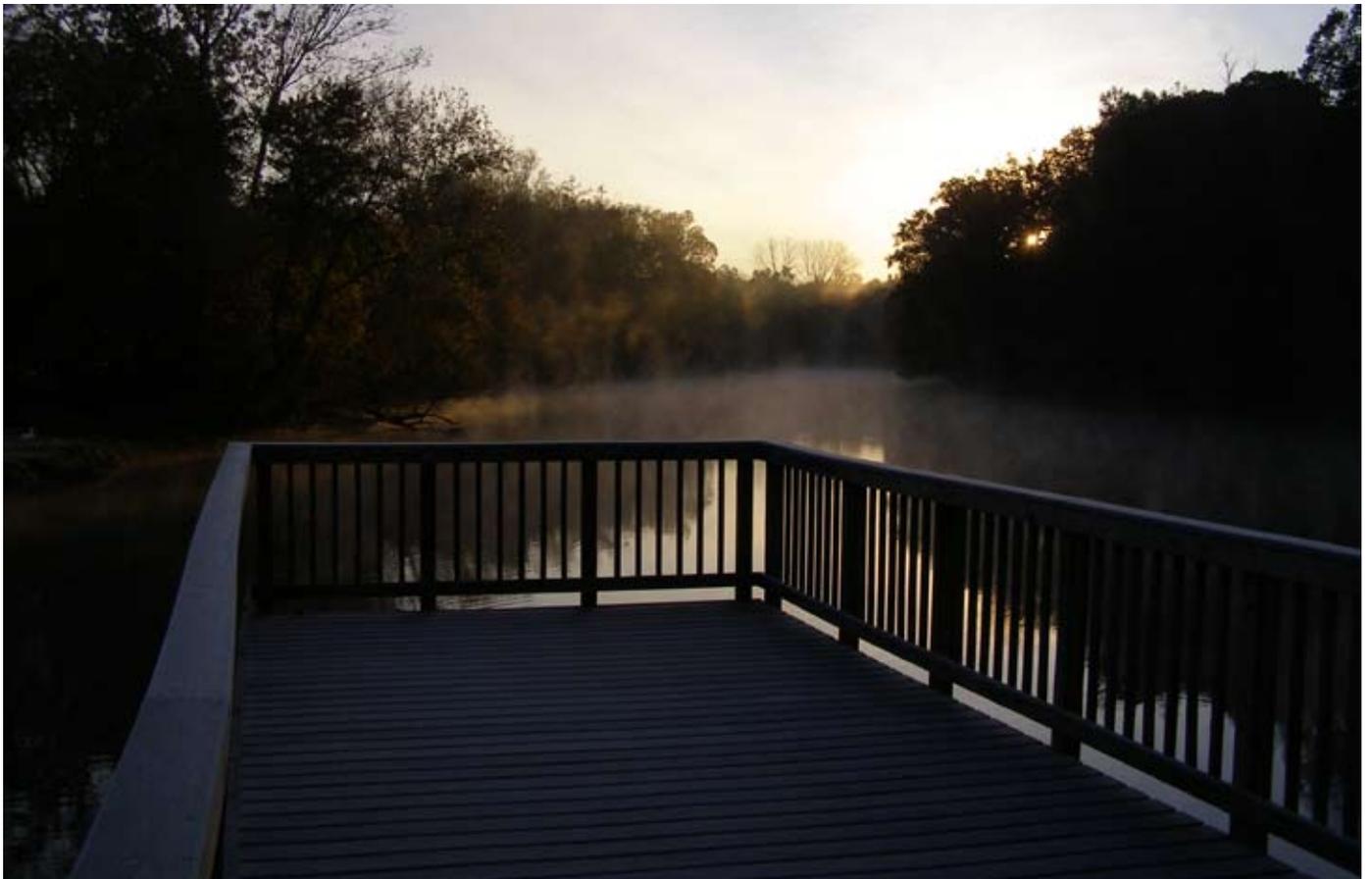
	<i>Priority</i>
Phase I - Plan Adoption	
Review and recommendation(s) by any municipalities' advisory Board(s)	High
Review and adoption of the Greenway Master Plan by the governing board(s)	High
Consider reviewing and amending the current zoning, subdivision, or unified development ordinance to require dedication of trail easements for new development	Medium
Consider reviewing and amending the floodplain ordinance to strictly limit the construction of structures in floodplains	Medium
Consider reviewing and amending the zoning, subdivision, or unified development ordinance to protect riparian buffer corridors	Medium
Consider reviewing the current open space and land dedication requirement(s) and payment in lieu policies/ordinances	Medium
Phase II - Build Public Support	
Building off the existing steering committee developed to create this master plan, establish a Trail Advisory Committee to promote greenway development and advise the governing group on related issues	High
Conduct a public information campaign to advertise trail successes and future trail plans	Medium
Form partnerships with regional non-profit organizations that can move quickly to procure open space and trail opportunities	Medium
Phase III - Prioritization	
Review priority segments identified in the plan	High
Identify and maximize local trail opportunities through the development plan review process, open space acquisition, and floodplain regulations	Medium
Review current and future utility corridors/easements for local greenway opportunities	Medium
Establish criteria for trail priorities (i.e. cost, length of trail, location, conservation benefit, etc.)	Medium
Discuss and rank greenway priorities based on agreed upon criteria	Medium
Consider developing and recommending a multi-year, dedicated funding source to support greenway acquisition and stewardship	Medium
Consider developing an acquisition plan based on priority segments and the current Capital Improvement Plan (CIP)	Medium
Phase IV - Identify Funding Sources	
Pursue all avenues of grants from state, federal and non-governmental funding sources	High
Consider local bonds to pay for greenway acquisition, design, construction, and maintenance expenses	Medium
Phase V - Acquisition	
Approach property owners about potential voluntary easement(s) or property donations based on the established priorities	Medium
Negotiate with property owner(s)	Medium
Retain control of the desired trail corridor	Medium



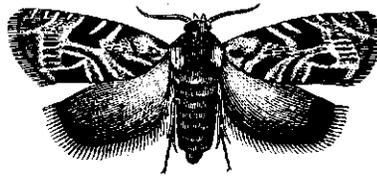
Phase VI - Design, Construction, and Beyond

Priority

Coordinate with local law enforcement and emergency services on the trail design and safety	High
Develop a long-term maintenance plan	High
After the corridor is acquired proceed with the following steps:	
Survey the desired trail segment	Medium
Complete and approve construction drawings	Medium
Bid the trail project and select the contractor	Medium
Oversee completion of work by contractor	Medium
Consider planning and executing a trail ribbon cutting/Grand Opening	Medium
Coordinate with volunteer groups to maintain the trail facilities	Medium



Observation deck at the Riverside Park and Greenway, part of The Thread in Cramerton, NC



APPENDIX IV: FEDERAL FUNDING OPTIONS

Recreational Trails Grants Program

US Department of Transportation

<http://www.fhwa.dot.gov/environment/rectrails/index.htm>

http://www.ncparks.gov/About/trails_main.php

The Recreation Trails Program is a federal transportation program that provides monies for the maintenance, development, acquisition and construction of new and existing trail facilities for both motorized and nonmotorized recreational trail uses. Funds are distributed to the states according to a formula. Eligible applicants include nonprofit organizations, municipal agencies, state agencies, federal government agencies and other government entities (regional governments, port districts, etc.). Eligible projects include:

- (1) maintenance and restoration of existing trails,
- (2) development and rehabilitation of existing trails,
- (3) construction of new recreation trails, and
- (4) acquisition of easements and fee simple title to property.

Grants are distributed annually and require a twenty percent match.

In FY 2008, North Carolina is receiving \$1,780,661 for this program, which is administered by a section of the Division of Parks and Recreation for North Carolina. Funds from this program have been used in the past for trails and improvements.

Transportation Enhancements (TE)

US Department of Transportation

www.enhancements.org

<http://www.ncdot.org/financial/fiscal/Enhancement/>

The federal Surface Transportation Program provides states with funding for highway projects. States are allocated funds based on a combination of population, transportation

systems, miles of roads, and other factors. Each state must reserve at least 10% of its Surface Transportation Program dollars for transportation enhancement activities. These enhancement projects include historic preservation, rails-to-trails programs, easement and land acquisition, transportation museums, water pollution mitigation, wildlife connectivity, and scenic beautification. All projects must be related, in some way, to transportation.

In each state, TE projects are selected through a competitive process. Applications are submitted by local government entities, often in partnership with nonprofit organizations. The federal government provides 80 percent of the funds and the municipalities need to contribute a 20-percent match.

Transportation Enhancement (TE) activities, awarded through the North Carolina Call for Projects process, must benefit the traveling public and help communities increase transportation choices and access, enhance the built or natural environment and create a sense of place. Transportation Enhancement Projects must meet the following two federal requirements: (1) Have a relationship to surface transportation, and (2) Be one of twelve qualifying activities.

Safe Routes to School Program

US Department of Transportation

<http://www.ncdot.org/transit/bicycle/saferoutes/>

[SafeRoutes.html](http://www.ncdot.org/transit/bicycle/saferoutes/SafeRoutes.html)

SAFETEA-LU created a new program called Safe Routes to School. The goal of this program is to encourage children to walk to school by providing accessible and safe trails connecting schools to neighborhoods. 70% of the funds are used for infrastructure, 10% for education and enforcement, and 20% can be used for either category. Matching funds are not required.



North Carolina is projected to receive approximately \$15.4 million in federal aid funding for the SRTS Program over five federal fiscal years, from 2005-2009. According to the North Carolina DOT website, "Infrastructure grants provide funds for planning, design, and construction. Any agency that is willing and able to enter into a reimbursement agreement with NCDOT and has the authority to construct and/or install and maintain infrastructure is eligible to apply. Funding requests may range from \$100,000 to \$300,000 per project. \$3.5 million is set aside to fund SRTS infrastructure projects [for this cycle, which is the second].... Funds must be spent on projects that are within 2 miles of a school serving K-8 grades within the public right-of-way or on a permanent easement."

Transportation and Community and System Preservation Program (TCSP) US Department of Transportation

<http://www.fhwa.dot.gov/tcsp/>

The Transportation and Community and System Preservation Program (TCSP) was established to help communities address the linkage between transportation, land use, and quality of life. Its goals are to improve the efficiency of transportation systems, reduce transportation's environmental impacts, reduce the need for costly future public infrastructure investments, and plan for development.

After the initial competitive funding rounds, Congress began to earmark this program for a wide variety of transportation projects, including trails. To gain access to these funds, it has been necessary for a member of the congressional delegation to request a project during the congressional appropriations process. There was one competitive round of grants in FY 2007, when Congress failed to earmark any appropriations. In FY 2008, Congress

earmarked the programs entire allocation again.

When there is a competitive process, the Federal Highway Administration will issue an RFP. Eligible entities include states, metropolitan planning organizations, local governments, and tribal governments. Nongovernmental organizations are encouraged to partner with a government agency. A 20% match is required. Grant proposals should address how proposed activities will meet the following:

- Improve the efficiency of the transportation system.
- Reduce the impacts of transportation on the environment.
- Reduce the need for costly future public infrastructure.
- Ensure efficient access to jobs, services and centers of trade.
- Encourage private sector development patterns.

TCSP's authorized funding level in FY 2009 is \$61.25 million. Planning grants are also available under this program to help communities achieve integration of transportation programs with community preservation and environmental activities.

A total of \$53.4 million were appropriated for the TCSP Program under the FY 2008 Consolidated Appropriations Act. The Act designated TCSP Program funding for 102 projects in 36 States. In FY 2008, several TCSP earmarks were provided by Congress to the Carolinas. For example, Johnson County received \$360,150 for the Clayton Pedestrian Grade Separation and US 17 in Beaufort County received \$367,500. In FY 2006, South Carolina received \$1,076,625 for I-73 improvements.

Land and Water Conservation Fund (LWCF) Department of the Interior (varies by agency)

<http://www.nps.gov/ncrc/programs/lwcf/>

Created in 1965, the Land and Water Conservation



Fund (LWCF) is the largest source of federal money for park, wildlife, and open space land acquisition. Specifically, the LWCF provides funding to assist in the acquiring, preserving, developing and assuring accessibility to outdoor recreation resources, including but not limited to open space, parks, trails, wildlife lands and other lands and facilities desirable for individual active participation.⁴⁸ The program's funding comes primarily from offshore oil and gas drilling receipts, with an authorized expenditure of \$900 million each year, while federal recreation fees, sales of federal surplus real property, and federal motorboat fuel taxes fund also contribute to the LWCF. Under this program, a portion of the money is intended to go to federal land purchases and a portion to the states as matching grants for land protection projects.

LWCF – Federal Department of the Interior Department of Agriculture/US Forest Service

The federal side of the Land and Water Conservation Fund provides funding for federal agencies (Fish and Wildlife Service, Forest Service, National Park Service, and the Bureau of Land Management) to add land to existing recreation areas, parks, forests, refuges and other federal units. LWCF funding provides the bulk of the money available for this purpose and is typically provided through the annual federal appropriations process, with Congress making the determination of what federal land units will receive LWCF funding each year.

In North Carolina, there are three national forests, several national wildlife refuges, two national seashores and scattered other national park service units – Great Smoky Mountains National Park, for example – that are eligible for LWCF acquisition funding. Funding levels for federal land acquisitions are determined by Congress or the relevant federal agency and are related to the property's value.

LWCF—Stateside National Park Service

http://www.nps.gov/ncrc/programs/lwcf/fed_state.html

<http://www.ils.unc.edu/parkproject/lwcf/home1.html>

<http://www.discoversouthcarolina.com/agency/grantslandconservation.asp>

The stateside LWCF program provides a 50 percent match to states for planning, developing and acquiring land and water areas for natural resource protection and recreation enhancement.

Funds are distributed to states based on population and need. Once the funds are distributed to the states, it is up to each state to choose the projects, though the National Park Service has final approval. Eligible grant recipients include municipal subdivisions, state agencies and tribal governments, each of whom must provide at least 50 percent matching funds in either cash or in-kind contributions and a detailed plan for the proposed project. Grant applications are evaluated based on the technical merits of the project, the public/private partnerships, and how the project addresses the identified needs and priorities of a statewide comprehensive plan. Annual appropriations to the fund have ranged from a high of \$369 million in 1979 to four years of zero funding between 1996 and 1999.

In FY 2007, \$27.9 million was provided for stateside grants. In FY 2007, North Carolina received \$632,846 from the state grant portion of the LWCF. The program is administered by the Department of Environment and Natural Resources.

Forest Legacy Program (FLP) US Forest Service (USFS)

www.fs.fed.us/spf/coop/programs/loa/aboutflp.shtml

The Forest Legacy Program was established in 1990 to provide federal funding to states to assist in securing conservation easements on forestlands threatened with



conversion to non-forest uses. Fee transactions are also used under the program, either for the whole transaction or combined with easements to achieve a state's highest conservation goals. A state voluntarily enters the program by submitting an Assessment of Need (AON) to the Secretary of Agriculture for approval. These plans establish the lead state agency, the state's criteria for Forest Legacy projects, and Forest Legacy areas within which proposed Legacy projects must be located. Once the AON is approved, the state lead agency can submit up to three grants each year for projects within the FLAs. The federal government may fund up to 75 percent of project costs, with at least 25 percent coming from private, state or local sources.

In FY 2008, the Forest Legacy Program was funded at \$59.8 million, providing grants to states for 35 forest conservation projects. Both North Carolina and South Carolina are participating in the program and have protected approximately 6,500 acres with \$8.5 million in FLP funds and 32,250 acres with \$26.7 million in FLP funds, respectively, since joining the program.

Federal Aid in Sport Fish Restoration:

U.S. Fish and Wildlife Service

<http://federalasst.fws.gov/sfr/fasfr.html>

The Federal Aid in Sport Fish Restoration Act, commonly referred to as the Dingell-Johnson Act, was passed in 1950, to create a program for the management, conservation, and restoration of fishery resources. The program is funded by revenues collected from an excise tax paid by the manufacturers of fishing equipment. Appropriate State agencies are the only entities eligible to receive these grants and funds are apportioned to each State on a formula based on the percentage of licensed anglers in the state and the percentage of states' land and water area.

The program is a cost-reimbursement program in which the state applies for repayment of up to 75 percent of approved project expenses. The state must provide at least 25 percent of the project costs from non-federal sources.

In FY 2008, North Carolina has received over \$7.8 million in funding through this program.

Federal Aid in Wildlife Restoration

Pittman-Robertson Act)

U.S. Fish and Wildlife Service

<http://federalasst.fws.gov/wr/fawr.html>

Implemented in 1938, the Federal Aid in Wildlife Restoration Act, more commonly known as the Pittman-Robertson Act, provides funding for the selection, restoration, rehabilitation, and improvement of wildlife habitat as well as wildlife management research. Funds are derived from an excise tax on sporting arms, ammunition, and archery equipment as well as a percent tax on handguns. Funds are apportioned to state agencies on a formula based on the total area of the state and the number of licensed hunters in the state.

The program is a cost-reimbursement program in which the state applies for repayment of up to 75 percent of approved project expenses. The state must provide at least 25 percent of the project costs from non-federal sources.

In FY 2008, North Carolina received over \$5.5 million in funding through this program.

Migratory Bird Conservation Fund

U.S. Fish and Wildlife Service

<http://www.fws.gov/realty/mbcc.html>

Each year, duck stamp (migratory bird and conservation stamps) revenues are deposited into the Migratory Bird Conservation Fund along with appropriations from the



Wetlands Loan Act of 1961, import duties from arms and ammunitions, receipts from refuge admission fees, receipts from the sale of refuge-land crops and refuge rights-of-way, and Federal Aid funds. Administered by the USFWS, the Migratory Bird Conservation Fund is used to acquire waterfowl breeding, wintering, and migration habitat needed for maintaining optimum migratory bird population levels and to achieve desirable migration and distribution patterns. The habitat areas, acquired in fee, easement, or other interests such as leases or cooperative agreements, become units of the National Wildlife Refuge System or Waterfowl Production Areas. The Service focuses its acquisition efforts to benefit waterfowl species most in need of habitat protection. Over 5 million acres have been protected with funds from the Migratory Bird Conservation Fund. Refuges with acquisitions funded through this program in North Carolina include Cedar Island NWR, Roanoke River NWR, Mackay Island NWR, and Currituck NWR.

The North American Wetlands Conservation Act (NAWCA)

U.S. Fish and Wildlife Service

<http://www.fws.gov/birdhabitat/Grants/NAWCA/index.shtml>

The North American Wetlands Conservation Act (NAWCA) was passed in 1989 to provide matching grants for the acquisition, restoration, and enhancement of wetland ecosystems for the benefit of waterfowl and other wetland dependent migratory species. Administered by the U.S. Fish and Wildlife Service, grants are available to nonprofit organizations, state and local agencies, tribes, and private individuals in the U.S., Canada, and Mexico. Two types of grants are awarded; small grants for up to \$75,000 and standard grants for up to \$1 million. There is a 1:1 non-federal match requirement for each grant although the

average match of successful proposals is over 2:1.

In December 2002, Congress reauthorized the Act and expanded its scope to include the conservation of all habitats and birds associated with wetlands ecosystems. Congress also increased the appropriation authorization of the grant program to \$55 million for FY 2003, with \$5 million increases to occur annually until FY 2007, when the appropriation cap will be \$75 million. The Congressional appropriation to fund the grant program in FY 2008 is approximately \$40.3 million. Additional program funding is expected to bring the total funding available to approximately \$84.4 million in FY 2008.

Since 1990, over 3,500 partners have been involved in over 1,650 NAWCA standard and small grant projects, affecting 23.8 million acres of wetlands and associated uplands across the continent.

In FY 2008, North Carolina had four grants totaling almost \$4 million approved through this program.

State Wildlife Grants

U.S. Fish and Wildlife Service

<http://wsfrprograms.fws.gov/Subpages/GrantPrograms/SWG/SWG.htm>

Created by Congress in 2001, the State Wildlife Grants Program is a matching grant program available to every state in support of cost-effective, on-the-ground conservation efforts aimed at restoring or maintaining populations of native species before listing under the Endangered Species Act is required. In order to maximize the effectiveness of this program, Congress required each state to develop a comprehensive wildlife conservation strategy for the conservation of the state's full array of wildlife and the habitats they depend upon. These plans identify species and habitats of greatest conservation need and outline



the steps necessary to keep them from becoming endangered. The State Wildlife Grants Program provides matching funds that are to be used to implement the conservation recommendations outlined in these state wildlife action plans.

Funds appropriated under the SWG program are allocated to every states according to a formula based on a state size and population. Since its inception in 2001, North Carolina has received over \$11 million in matching funds from this program.

***Cooperative Endangered Species Conservation Fund:
Recovery Land Acquisition Grants
U.S. Fish and Wildlife Service***

<http://www.fws.gov/angered/grants/index.html>

Grants offered through the Cooperative Endangered Species Conservation Fund (authorized under section 6 of the Endangered Species Act) fund participation in a wide array of voluntary conservation projects for candidate, proposed and listed species. Recovery Land Acquisition Grants provide funds to States for the acquisition of habitat, through both fee and easement, for federally listed threatened and endangered species in support of approved recovery plans. These funds must contribute to the implementation of a finalized and approved recovery plan for at least one listed species. North Carolina hosts 63 threatened and endangered species. Land acquisition projects that support the recovery of these species are eligible for funding under this program.

***National Fish and Wildlife Foundation -
Keystone Initiative Grants & Special Grants Programs
National Fish and Wildlife Foundation***
<http://www.nfwf.org/programs.cfm>

In 1984, Congress created the National Fish and Wildlife Foundation to benefit the conservation of fish, wildlife, plants, and the habitat on which they depend by attracting diverse investments to conservation and encouraging locally supported stewardship on private and public lands. Through their Keystone Initiatives Grant Program, NFWF funds projects to conserve and restore bird, fish, and wildlife populations as well as the habitats on which they depend. The Foundation awards matching grants to projects that address priority actions laid out by their strategic plan, work proactively to involve other conservation and community interests, leverage funding, serve multiple objectives, involve strong partnerships, and fit into a larger ecosystem approach to conservation. The most successful applications will display the long-term environmental benefits of a project that yield high quality conservation returns.

Eligible grantees include federal, tribal, state, and local governments, educational institutions, and non-profit conservation organizations. Grants can range from \$50,000 to \$300,000 and typically require a 2:1 nonfederal match.

In addition to the Keystone Initiative matching grants, the Foundation administers a variety of special grant programs with specific conservation objectives, programmatic guidelines, and timelines. (See the Foundation's website for more information on these numerous grant opportunities or call NFWF's Eastern Partnership Office (202) 857-0166.)

***Brownfields Program
U.S. Environmental Protection Agency (EPA)***

<http://www.epa.gov/brownfields/applicat.htm>

If a property identified for acquisition or redevelopment is or might be a "brownfields" site, many programs and



other benefits at the local, state and federal levels encourage its redevelopment. The U.S. Environmental Protection Agency's Brownfields Program provides direct funding for brownfields assessment, cleanup, revolving loans, and environmental job training. In addition, legislation signed into law in 2001 limits the liability of certain contiguous property owners and prospective purchasers of brownfields properties, and innocent landowner are also afforded liability benefits to encourage revitalization and reuse of brownfield sites. EPA's brownfields program provides several types of grants:

- **Assessment Grants** provide funding for a grant recipient to inventory, characterize, assess, and conduct cleanup and redevelopment planning and community involvement related to brownfield sites. \$200,000 grants (or to \$350,000 with a waiver).
- **Remediation Grants** are available for remediation of brownfield sites. These grants are limited to \$200,000 per site, with no more than three applications per entity. There is a 20 percent cost-share. NGOs are eligible to apply, but must have site control of the property. One site may qualify for two grants if pollutants include petroleum and non-petroleum contaminants.
- **Revolving Loan Fund grants** (RLF) provide funding for a grant recipient to capitalize a revolving loan fund to provide sub grants to carry out cleanup activities at brownfields sites. \$1 million per eligible entity, with a 20 percent cost share.

Annual grants are announced in approximately October of each calendar year.

In an example of this funding, The Trust for Public Land received an EPA brownfields grant to assist in the capping of a landfill in Providence, R.I. on a 1.5 acre property that is now part of the Woonasquatucket River Greenway.

Urban Park and Recreation Recovery Program (UPARR) National Park Service

<http://www.nps.gov/uprr/>

The Urban Park and Recreation Recovery Program was developed as the urban component to the Land and Water Conservation Fund in 1978. UPARR grants are given to eligible cities and counties and are meant to assist disadvantaged areas. The grants fund rehabilitation (capital funding for renovation or redesign of existing facilities), innovation (funding aimed to support specific activities that either increase recreation programs or improve the efficiency of the local government to operate recreation programs), and planning (funding for development of recovery action program plans) for recreational services in urban areas. From the program's inception in 1978 to 2002, it has distributed approximately \$272 million for 1,461 grants to local jurisdictions in 43 states, the District of Columbia and Puerto Rico. A local match of at least 30 percent is required for most grants. This program, however, has not been funded for the past six fiscal years.

Clean Water and Drinking Water State Revolving Funds U.S. Environmental Protection Agency

<http://www.epa.gov/OWM/cwfinance/cwsrf/index.htm>

<http://www.epa.gov/safewater/dwsrf/index.html>

The U.S. Environmental Protection Agency is charged with implementing both the Clean Water Act and the Safe Drinking Water Act, two landmark pieces of legislation whose respective goals are to clean up America's waterways and to ensure that we have safe water to drink. Conservation is an eligible activity under both laws. Both programs utilize "State Revolving Funds" or SRFs to fund projects that better water quality and enhance our drinking water supplies. Every year, Congress appropriates funds that are apportioned out to the states on a formula basis to fund the SRFs.



Clean Water State Revolving Fund (CWSRF)

Through the CWSRF program, each state maintains a revolving loan fund to provide a source of low-cost financing for a wide range of water quality infrastructure projects. In FY07, Congress appropriated \$1.083 billion for the CWSRF, distributed among the states. Pennsylvania has received \$968 million for this program from 1989-2006. Federal funds must be matched by 20% non-federal funds.

The CWSRF program is available to fund a wide variety of water quality projects including all types of nonpoint source, watershed protection or restoration, and estuary management projects, as well as more traditional municipal wastewater treatment projects. Nationwide, 95% of these funds go toward infrastructure projects, but watershed protection projects are increasing.

CWSRF programs operate much like environmental infrastructure banks that are capitalized with federal and state contributions. CWSRF monies are loaned to communities and loan repayments are recycled back into the program to fund additional water quality protection projects. The revolving nature of these programs provides for an ongoing funding source that will last far into the future.

States have the flexibility to target resources to their particular environmental needs, including contaminated runoff from urban and agricultural areas, wetlands restoration, groundwater protection, brownfields remediation, estuary management, and wastewater treatment.

Land or easement acquisition is permitted with CWSRF funds as a method to reduce nonpoint source pollution. For example, California has already used \$112 million of its CWSRF funds to acquire over 29,000 acres of land for water quality benefits.

North Carolina's FY 2007 allotment of CWSRF funds was \$15.8 million.

Drinking Water State Revolving Fund (DWSRF)

The Drinking Water State Revolving Fund (DWSRF) program was established by the 1996 Safe Drinking Water Act Amendments, under which EPA provides grants to States to establish revolving loan funds from which they provide loans and other types of financial assistance to public water systems for eligible infrastructure improvements. Since its inception, Congress has directed \$4.2 billion for the DWSRFs. In FY 2007, states were awarded \$822.933 towards their DWSRFs. Conservation easements and fee simple acquisition are permitted with these funds.

Since its inception, only \$2.7 million has been for acquisition to protect less than 2,000 acres of land under the DWSRF. However, EPA has begun a concerted effort to focus more attention on protecting "source water," which they roughly define as "untreated water from streams, rivers, lakes, or underground aquifers which is used to supply private wells and public drinking water." There is growing recognition that protecting the source from contaminants is often more efficient and cost-effective than treating drinking water later.

Loans under the DWSRF are typically low interest and can be repaid over 20 years. There is some flexibility given to the states to allow them to waive the principal repayment, offer negative interest rates or extend the loans to 30 years in specific hardship cases.

Up to 31 percent of these capitalization grants can be set-aside to administer the SRF and state source protection programs and to fund source water protection activities, including land acquisition. Up to 15 percent of the set-aside can be used for land conservation and voluntary, incentive-based protection measures, with no more than 10 percent used for a single type of activity, such as land protection.

North Carolina's FY 2007 DWSRF allotment was \$27,695,000.



***Community Development Block Grants (CDBG)
Federal Department of Housing and Urban
Development***

<http://www.hud.gov/offices/cpd/communitydevelopment/programs/entitlement/>

The Department of Housing and Urban Development provides Entitlement Communities Grants for the principal cities of Metropolitan Statistical Areas (MSAs), other metropolitan cities with populations of at least 50,000; and qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities). CDBG funds may be used for activities that include, but are not limited to acquisition of real property; relocation and demolition; and construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes.

In FY 2008, the state of North Carolina received a CDBG allocation of \$44,528,548 for grants to smaller communities, and direct allocations were provided to another 25 cities. For specifics on which community received CDBG funds, go to <http://www.hud.gov/offices/cpd/about/budget/budget08/> and click on the relevant state.

An additional HUD program is the Economic Development Initiative program (EDI). Projects within this program are earmarked directly by Congress and are generally awarded under \$300,000. Funds may go towards park acquisition and improvements, but directly compete with other economic, social, housing, and cultural development projects.

Department of Defense Buffer Program

<https://www.denix.osd.mil/portal/page/portal/denix/range/Compatible:REPI>

The Department of Defense's Readiness and

Environmental Protection Initiative (REPI) provides funding for the military to work with state and local governments, non-governmental organizations and willing land owners to help prevent encroachment from adversely impacting military facilities.

The military services are authorized to enter into agreements with conservation organizations and public agencies to acquire land or easements on land around military installations. The intent of the REPI program is (1) to limit development or property use that is incompatible with a military installation's mission and (2) to preserve habitat off base to relieve current or anticipated environmental restrictions that might interfere with military training on base. The Department of Defense can share real estate acquisition costs for projects that support these purposes. The legislation does not authorize land acquisition for active military use.

In FY 2008, \$46 million was appropriated for this program. The military services are also authorized to use existing operations and maintenance funds for this purpose. In FY 2005, Camp Lejeune in North Carolina received \$500,000 under this program.



Avon/Catawba Creek Greenway, part of The Thread in Gastonia, NC



APPENDIX V: STATE FUNDING OPTIONS

Most statewide conservation funding comes through four major trust fund programs. Two of the funds – The Clean Water Management Trust Fund and the Agricultural Development and Farmland Preservation Trust Fund – are typically financed from general state appropriations. The other two – the Natural Heritage Trust Fund and The Parks and Recreation Trust Fund – are financed by the real estate transfer tax and personalized license plate sales. The tax levied is \$2 per \$1,000 of the value of the property. Of every two dollars generated from the real estate transfer tax, one dollar goes to conservation, the other to local governments. The dollar for conservation is split between the Parks and Recreation Trust Fund and the Natural Heritage Trust Fund.

The Natural Heritage Trust Fund

The Natural Heritage Trust Fund (NHTF) (est. 1987) provides funding to select state agencies for the acquisition of important natural areas to conserve the state's ecological diversity and cultural heritage, and to inventory the state's natural heritage resources. A twelve-member appointed Board of Trustees and the Natural Heritage Program award grants. Only state agencies may apply for these grants.

The Parks and Recreation Trust Fund

The Parks and Recreation Trust Fund (PARTF) (est. 1994) 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 8) Environmental Review. Local governments can request up to \$500,000 in assistance for each application.

Clean Water Management Trust Fund

The North Carolina General Assembly established the Clean Water Management Trust Fund (CWMTF) in 1996 to help finance projects that specifically address water pollution problems including the protection and conservation of watersheds through land acquisition. CWMTF provides grants to, among other things, add riparian buffers and greenways for environmental, educational, and recreational benefits. In support of a million-acre conservation goal established in 2000, the General Assembly agreed to increase funding for CWMTF to \$100 million per year (up from approximately \$30 million) beginning in 2003. CWMTF is administered by a 21-member, independent Board of Trustees and is housed for administrative purposes in the Department of Environment and Natural Resources.

Eligible grant applicants include: a) state agencies, b) local governments or other political subdivisions of the state or a combination of such entities, and c) nonprofit corporations 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 approves about one third of the grant requests that it receives.

To apply for a CWMTF grant, local governments must complete an application form that will be evaluated based on how well projects meet the fund objectives.



*Agricultural Development and
Farmland Preservation Trust Fund*

The Farmland Preservation Trust Fund was originally established in 1986, and in 2005, the Legislature renamed the program The Agricultural Development and Farmland Preservation Trust Fund (ADFPTF). At that time the description was broadened to include 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.

The Commissioner of Agriculture administers the Trust Fund, and a 19-member advisory committee was established to help direct funds and the application process. Revenue is derived from annual allocations from the General Fund.

Counties are eligible to apply for funding, and match requirements depend on various factors. Nonprofit conservation organization applicants must match 30 percent of trust fund monies received from sources other than NC ADFPTF. 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 VI: LOCAL FUNDING OPTIONS

This section details the primary options currently available to North Carolina communities to fund land conservation and trail projects as authorized by enabling state authority.

Property Tax

The property tax is the single largest revenue source for many local jurisdictions in North Carolina, and the proceeds may be expended for parks and open space. There is no authority by which a portion of the tax may be dedicated for this purpose, so expenditures are subject to the annual appropriations process. Property is assessed at 100 percent of market value. Tax rates are expressed as dollars per \$100 of assessed value.

The current Gaston County property tax (\$0.8400 per \$100 of assessed value) rate is higher than in nearby Catawba (0.5350), Lincoln (0.6100), and Union (0.7111) and barely higher than Mecklenburg (0.8387), and Cleveland (0.7300) Counties. Gaston's last property tax revaluation occurred in 2007.

The Board of County Commissioners could dedicate a portion of the annual property tax for land conservation and trail creation purposes. A small increase in the tax rate can generate a substantial amount of revenue (see Table 6 below). For instance, a three-cent increase in the property tax levy would generate roughly \$3.7 million a year at a cost to the average homeowner of approximately \$34.

Table 6:

Revenue and Cost of Additional Property Tax

Tax Increase	Est. Annual Revenue	Cost/Year/ Average Household*
0.01	\$1,253,147	\$3
0.02	\$2,506,294	\$23
0.03	\$3,759,441	\$34
0.04	\$5,012,588	\$46
0.05	\$6,265,735	\$57
0.10	\$12,531,470	\$114

Source: The State Demographer's Office, 1/2/2007

Bonds

Bond issues are a familiar form of public financing for local capital improvements in North Carolina. A bond issue provides up front funds that allow for the immediate purchase of land or easement and distributes the cost of acquisition over time so that future beneficiaries also share in the cost to acquire land.

Gaston County has capacity under existing debt limits to issue general obligation bonds for parks and trail purposes. As of June 30, 2007, Gaston County had roughly \$145.9 million in outstanding general obligation debt, leaving \$856.6 million in remaining bonding capacity under state debt limits. Moody's Investor Services list the County's bond rating to AAA and Standard & Poor's assigned the County AAA. The County also has a significant (and growing) tax base, which can support a fairly large bond at a moderate cost per household.

If the County passed a general obligation bond referendum, a \$50 million bond for greenspace preservation and trail creation would add about \$4 million to the County's annual debt service and cost the average homeowner roughly \$36 per year in additional property taxes over the life of the bond; this adds 0.0320 mills to the county's existing property tax rate. Table 7 below illustrates the estimated debt service and per household cost of various bond amounts.

Table 7:

Gaston County Bond Financing Costs

Bond Issue	Annual Debt Svce	Prop Tax Increase	Cost/Year \$100KAV	Cost/Ave./ Household*
\$10,000,000	\$802,426	\$0.0064	\$6	\$7
\$25,000,000	\$2,006,065	\$0.0160	\$16	\$18
\$35,000,000	\$2,808,491	\$0.0224	\$22	\$26
\$50,000,000	\$4,012,129	\$0.0320	\$32	\$36
\$75,000,000	\$6,018,194	\$0.0480	\$48	\$55
\$100,000,000	\$8,024,259	\$0.0640	\$64	\$73

Source: The State Demographer's Office, 1/2/2007



For most purposes, general obligation bonds may be issued only upon approval by a majority of the voters. Bonds also require approval by the Local Government Commission (LGC), a state body. Total general obligation debt is limited to eight percent of the assessed value of property subject to taxation by the County or city.

Since 1996, voters in 35 North Carolina counties and municipalities have voiced their support for parks and land conservation by approving just over \$620 million for these purposes at local bond referenda. All of these referenda passed with wide margins, with an average approval rate of 69 percent. Five measures failed during this time period.

Together, these jurisdictions comprise roughly 25 percent of the state population, and represent the state's largest metropolitan areas. See Appendix VII for a full list of successful conservation finance measures.

Impact Fees

At the municipal or county level, capital improvement dollars may also be raised for trails through a park/recreation impact fee program. Although not common in North Carolina, impact fees are frequently used by local governments in other states to help defray costs of new roads, water and sewer treatment, schools, parks, and other infrastructure necessitated by new development. Under this type of program, a fee is charged against new development to generate revenue to pay for the particular type of capital improvement. For example, Chatham County, NC has both a Recreation Impact Fee and an Education Facilities Impact Fee.

Real Estate Transfer Tax or Local Sales Tax

In 2007 the General Assembly authorized counties to levy either a land transfer tax (up to 0.4 percent) or a local sales tax (0.25 percent), following approval in a non-binding

advisory referendum. Revenue generated may be used for operations and maintenance as well as capital projects. So far, these measures have not been popular with voters. On May 6th, 2008 twenty North Carolina counties asked voters for approval to levy a quarter-cent local option sales tax and four counties are pursuing a 0.4 percent land transfer tax. All four counties defeated the land transfer tax and only two counties; Cumberland and Haywood passed the local option sales tax.

Prior to this new authorization there were six North Carolina counties with real estate transfer taxes, all of which had been given authority by the General Assembly. The first counties to do so were Dare and Currituck Counties in 1985. For all of these counties, the tax was set at \$1.00 per \$100 (1%) on instruments conveying interest in real estate and expenditure limited to capital needs. The NCACC reports that following implementation of the tax, home values remain affordable, job and rental growth remains robust, residential growth is vibrant, schools are benefiting immensely, and property taxes remain stable.

The North Carolina Association of County Commissioners estimated that, based on values for 2006, Gaston could have generated \$3.7 million from a land transfer tax of up to 0.4; based on values for 2007, they could have generated approximately \$4.4 million in revenue (a 20 percent increase). These figures illustrate how a transfer tax is subject to rapid fluctuations. A local sales tax rate increase of 0.25 percent would generate approximately \$4.4 million per year and would cost the average homeowner about \$26 per year.



APPENDIX VII: NORTH CAROLINA LAND CONSERVATION REFERENDA

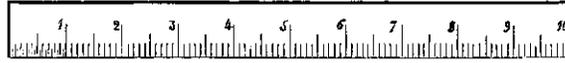
North Carolina Land Conservation Referenda Measures Passed 1996-2008

Note: Dollars here, in many cases are less than the total bond amount, as they refer to the portion of the bond set aside for land conservation.

<i>Jurisdiction Name</i>	<i>Jurisdiction Type</i>	<i>Date</i>	<i>Finance Mechanism</i>	<i>Conservation Funds Approved</i>	<i>Purpose</i>	<i>% Yes</i>
Apex	Municipal	11/2/2004	Bond	\$ 13,000,000	Open space, parks, recreation	85.82%
Apex	Municipal	11/5/1996	Bond	\$ 6,000,000	Recreation, parks, open space	85.32%
Belmont	Municipal	11/6/2007	Bond	\$ 2,700,000	Parks, recreation, trails	68.57%
Carrboro	Municipal	11/4/2003	Bond	\$ 230,000	Greenways, parks	72.86%
Cary	Municipal	5/3/2005	Bond	\$ 10,000,000	Open space, wildlife habitat, watershed protection	75.19%
Cary	Municipal	4/8/2003	Bond	\$ 15,000,000	Parks, greenways, recreation	56.10%
Chapel Hill	Municipal	11/4/2003	Bond	\$ 2,000,000	Open space	76.08%
Chapel Hill	Municipal	11/5/1996	Bond	\$ 3,000,000	Open space, parks, recreation	65.26%
Clayton	Municipal	5/6/2008	Bond	\$ 2,000,000	Parks, recreation	74.25%
Cornelius	Municipal	5/2/2000	Bond	\$ 1,500,000	Open space, parks, recreation	71.76%
Durham	Municipal	11/5/1996	Bond	\$ 5,350,000	Parks, recreation	67.35%
Fuquay-Varina	Municipal	5/8/2007	Bond	\$ 2,000,000	Parks, recreation	79.19%
Garner	Municipal	11/7/2000	Bond	\$ 3,500,000	Parks, recreation	68.49%
Greensboro	Municipal	11/7/2006	Bond	\$ 2,400,014	Parks	61.64%
Greensboro	Municipal	11/7/2000	Bond	\$ 34,200,000	Parks, recreation	69.39%
Guilford County	County	11/2/2004	Bond	\$ 20,000,000	Open space, recreation, watershed protection, parks, and greenways	55.05%
Guilford County	County	5/2/2000	Bond	\$ 10,000,000	Parks, recreation	62.17%
Huntersville	Municipal	11/4/2003	Bond	\$ 3,000,000	Parks, recreation	68.61%
Matthews	Municipal	11/2/2004	Bond	\$ 5,000,000	Parks, greenways	66.76%
Mecklenburg County	County	11/6/2007	Bond	\$ 33,990,000	Open space, greenways	63.82%
Mecklenburg County	County	11/2/2004	Bond	\$ 44,000,000	Parks, recreation	62.97%
Mecklenburg County	County	11/2/1999	Bond	\$ 106,000,000	Open space	60.63%
Mecklenburg County	County	11/4/2008	Bond	\$ 60,000,000	Parks, recreation, open space, trails	61.65%
Morrisville	Municipal	11/2/2004	Bond	\$ 4,000,000	Open space, parks, recreation	78.35%
Mount Holly	Municipal	6/3/2003	Bond	\$ 1,150,000	Parks, open space, greenways, trails	62.32%
New Hanover County	County	5/2/2006	Bond	\$ 10,700,000	Parks, recreation	67.06%
Orange County	County	11/6/2001	Bond	\$ 20,000,000	Watershed protection	66.89%
Orange County	County	11/4/1997	Bond	\$ 3,000,000	Recreation, parks	54.41%
Raleigh	Municipal	10/9/2007	Bond	\$ 39,888,721	Parks, greenways	72.40%
Raleigh	Municipal	10/7/2003	Bond	\$ 47,250,000	Parks, greenways, trails	69.12%
Wake County	County	10/9/2007	Bond	\$ 50,000,000	Open space	71.42%
Wake County	County	11/2/2004	Bond	\$ 26,000,000	Open space, recreation, watershed protection, wildlife habitat	74.84%
Wake County	County	11/7/2000	Bond	\$ 15,000,000	Open space	76.63%
Wake Forest	Municipal	11/3/1998	Bond	\$ 3,200,000	Parks, recreation, open space	68.86%
Wilmington	Municipal	11/5/1996	Bond	\$ 621,058,735	Recreation, parks	58.70%



Gastonia, NC



FOOTNOTES

[1] *Gaston County Parks and Recreation Master Plan*, p. 7, and *Gaston County Comprehensive Plan*, p. 3.

[2] *Gaston County website: County Profile, statistics*.

[3] *Gaston County Parks and Recreation Master Plan*, p. 7.

[4] *Gaston County Parks and Recreation Master Plan*, p. 8, and *Gaston County Comprehensive Plan* (2002), p. 3.

[5] *Gaston County Comprehensive Plan*, p. 3.

[6] (http://www.learnnc.org/lp/editions/cede_lonemts/ - *Carolina Environmental Diversity Explorations, Lonely Mountains by Dirk Frankenberg*).

[7] *Gaston County Parks and Recreation Master Plan*, p. 3.

[8] *Gaston County Parks and Recreation Master Plan*, p. 8 and *Gaston County Comprehensive Plan*, p. 11.

[9] *Gaston County Parks and Recreation Master Plan*, p. 9.

[10] *Market Study, Mt. Holly Community Planning 2006-2007, a collaboration effort of City Planning Staff, a Citizen Advisory Team, the public in Mount Holly, and consultants from the Charlotte Community Design Studio, The UNC Charlotte Urban Institute, and Warren and Associates*, p. 2.

[11] *From Gaston County Website: History*.

[12] *From Gaston County Website: History*.

[13] *The North Carolina Employment Security Commission, Labor Market Division*, 4/2007. Based on 9/2006 employment figures.

[14] *From Gaston County Website: History*.

[15] *Gaston County Parks and Recreation Master Plan*, p. 8 and *Gaston County Comprehensive Plan* (2002), p. 3.

[16] *IBID*, p. 10.

[17] *Gaston County Comprehensive Plan "The County Today,"* p. 8.

[18] *IBID*, p. 8.

[19] *Town of Cramerton Comprehensive Park and Recreation Master Plan, Section 5*, p. 2.

[20] *Ultimately, less than 100 people were surveyed so the results are not necessarily representative of the larger population*.

[21] *Gaston County Park and Recreation Master Plan*, p. 45.

[22] *IBID*, p. 44.

[23] "Gaston County Parks and Recreation Master Plan," Adopted 9/27/2007, p. 48.

[24] *Belmont Comprehensive Land Use Plan; "Belmont Parks and Recreation Facilities Comprehensive Master Plan 2003/2013"* (Adopted 2003).

[25] *Town of Cramerton Greenway and Pedestrian Trails Master Plan, Section IV: Inventory of Existing Conditions* -- <http://www.cramerton.org/ProposedGreenwayPlan.doc>.

[26] *Mount Holly Market Study*, p. 6.

[27] *Gastonia Vision for a Healthy Community: Plan for Parks, Recreation and Open Spaces*, p. 13.

[28] *Gaston County Unified Development Ordinance, adopted April 24, 2008 – Purpose and Acknowledgement*.

[29] *Unified Development Ordinance Section 11.7.6*.

[30] *Groundtruthing is the practice of physically walking sections of land to observe any characteristics that might not be reflected in the GIS data and record any obstacles or reasons that the specific route (or routes, as multiple routes are often available within the ¼ mile wide swath that appears on the concept maps) might not be suitable or that alternative alignments may be necessary*.

[31] *Land For Tomorrow*: <http://www.landfortomorrow.org/stuff/contentmgr/files/212ef8a3c75a0a56df3dcf43f86fad16/misc/charts23.pdf>.

[32] <http://www.landfortomorrow.org/page411.html>.

[33] <<http://www.iac.wa.gov/iac/grants/lwcf.htm>>.

[34] *General Statute Article 5A §113-77.6 through 113-77.9*.



[35] More information on application requirements is available on the state website - http://www.ncparks.gov/About/grants/partf_forms.php.

[36] Article 18; §113A of the North Carolina General Statutes.

[37] More information on application requirements is available on the state website - <http://www.cwmtf.net/acqbuffers.htm>.

[38] Chapter 106 Article 61 §§ 106-745 through 106-749.

[39] Match requirements are as follows: (1) Tier One Enterprise Counties: (A) with a County Farmland Protection Plan must submit a 0 percent match, or (B) without a County Farmland Protection Plan must have a 30 percent match. (2) Tier Two or Three Enterprise Counties: (A) with a County Farmland Protection Plan must submit a 15 percent match OR (B) without a County Farmland Protection Plan must submit a 30 percent match.

[40] More information on application requirements is available on the state website - <http://www.ncadfp.org/2008-2009ApplicationMaterials.htm>.

[41] August 2007 Munistatement.

[42] The Trust for Public Land's bond cost calculations provide a basic estimate of debt service, tax increase, and cost to the average homeowner in the community of potential bond issuances for parks and trails. Assumptions include the following: (a) The entire debt amount is issued in the first year and payments are equal until maturity; (b) 20-year maturity; and 5 percent interest rate. (c) The property tax estimates assume that the jurisdiction would raise property taxes to pay the debt service on bonds, however other revenue streams may be used; (d) The cost per household represents the average annual impact of increased property taxes levied to pay the debt service; (e) The estimates do not take into account growth in the tax base due to new construction and annexation over the life of the bonds; (f) The jurisdiction's officials, financial advisors, bond counsel and underwriters would establish the actual terms of any bond.

[43] § 159-51.

[44] For more information visit the County of Chatham's website, available at <http://www.chathamnc.org/Index.aspx?page=730>.

[45] The 2007 State Appropriations Act (H1473). A ballot may include advisory referendums for both the land transfer tax and the quarter-cent sales tax. If both referenda pass, then the Board of Commissioners would have to choose which one to authorize, if they so desire. A county may not enact

both. However, even if voters approve either the land transfer or local sales tax in a referendum the Board of County Commissioners is not obligated to levy the tax. A county may not stipulate the use of the money to be generated on the ballot and revenues are expressly authorized to be used for any lawful purpose. The sales tax is not restricted or earmarked.

[46] <http://www.ncacc.org/2008revenueoptions.html>.

[47] North Carolina Association of County Commissioners Policy Brief, April 13, 2007: Land Transfer Taxes: The NC Experience.

[48] The amount for the estimated annual revenue is derived from calculations completed by the North Carolina Association of County Commissioners. (http://www.ncacc.org/documents/revenueauthority_073107.pdf). It is based on 2006 household income of \$42,410 (U.S. Census), and assumes that 25% of per capita income is spent on taxable items.

