

Appendix I: Greenway Cost Estimating & Funding

Estimating the costs of greenway in a planning context is an inexact science as construction timelines are undefined and materials costs can fluctuate month-to-month. Further, the details of design and property acquisition for greenways can vary greatly once analysis is conducted to determine an exact alignment and identify appropriate amenities, gateway treatments, inclusion of parking areas, and the like. Cost estimating in a planning context is akin to the accuracy of the 10th day of a 10-day weather forecast—determining how much materials will cost in 10 or 20 years is inherently inaccurate, even with the most precise estimating tools.

Therefore, the unit costs outlined in this Appendix are intended to provide a snapshot of costs to identify an order of magnitude for planned greenways.

Greenway Features that Impact Cost

A greenway is typically located within the floodplain of a river or stream, taking advantage of land that is usually relatively flat and undeveloped. In this setting, several variables that can impact the ultimate cost and may not be identifiable at a planning level:

- ◆ A greenway can be designed and constructed “at grade” so that runoff sheet flows across it. It is not always possible, however, and a drainage system may be required.
- ◆ Addressing handicap accessibility, terrain and adjacent land use can change dramatically along a single trail.
- ◆ A typical paved cross section includes a two-inch thick surface layer of hot mix asphalt above a six-inch thick layer of aggregate base course. As an alternative, a four-inch thick layer of concrete may be used. Concrete is generally more expensive, however it can be constructed in

colder temperatures than asphalt and is more durable. Other surface types can also be used.

- ◆ Steep banks of some locations may mandate the use of retaining walls. Typical areas where this may be common are: areas where a roadway is close to a stream or river; narrow shelves built for existing utility easements; and areas close to existing structures.
- ◆ Amenities may be desirable along a greenway. Fishing piers and observation platforms generally consist of wooden structures with an appearance similar to a residential deck and built adjacent to a water body. Other features may include benches, garbage cans, playgrounds and fitness stations.

Cost Impacts of Stormwater Management & Wetlands Impacts

Stormwater treatment will be required in accordance with the County’s Stormwater Ordinance and contribute greatly to the overall cost of a project. Notably, a low density project is defined as a project that has no more than 24 percent built upon area. Current standards require treatment consistent with a low impact development approach and require features such as vegetated swales, pervious pavements, bioretention or rain gardens, as well as others. A high density project is defined as a project that has more than 24 percent built upon area. Current standards require that runoff rates be controlled and drawn down over 48-120 hours as well as be treated to remove 85% of total suspended solids (a water quality measure).

High density project features can include constructed wetlands, wet and dry detention basins, underground storage, infiltration devices and proprietary

treatment methods. The project definition will depend on the size of the property being developed as well as current and future uses. Stormwater treatment for a high density project will be significantly more expensive than for a low density project.

As greenways are typically built within floodplains it should be anticipated that permitting will be required for various environmental reasons. These may include wetlands and streams impacts, flood studies and no-rise certifications. Wooden boardwalks or pre-manufactured bridges can be used to minimize disturbances to environmentally sensitive areas without significantly affecting an alignment.

Estimating Costs

When evaluating costs it is important to note that the cost of asphalt typically increases at a much faster rate than inflation. As such, the North Carolina Department of Transportation’s Asphalt Price Index is the best reference to track costs. If wetlands and streams are impacted, a major cost will be mitigation. These costs are set by the NC Ecosystem Enhancement Program and are adjusted annually. Exhibit A-1 summarizes baseline costs for various features of greenway construction. These are generated for the first Working Paper as informational and will be refined as the Plan progresses to include other surface materials and other desired amenities.

Funding Strategies

Funding can be divided into four categories: local, state, federal, and private funding. Buncombe County should explore a variety of sources in order to take maximum advantage of the funds that are available.

Local Funding. Buncombe County does not have a dedicated budget line item for greenway and trail construction that is available each and every year to a known (minimum) amount. Programming projects in

*Exhibit A-1: Greenway Estimated Expenses
(includes Grading, 6" thick Aggregate Base Course and Surface Course)*

Construction Elements	Unit	Unit Price	Unit	Unit Price
10' wide Greenway Trail (2" thick asphalt surface course)	LF	\$30	mile	\$160,000
10' wide Greenway Trail (4" thick concrete surface course)	LF	\$62	mile	\$330,000
The following items will vary depending on each specific location.				
Site Specific Construction Items				
Drainage (cross culverts at 300' intervals)			mile	\$16,000
Retaining Wall	SF	\$25		
Fence (split rail)	LF	\$12		
Stormwater Treatment			mile	\$48,450
Amenities				
Fishing Pier	Each	\$14,000		
Observation Platform	Each	\$11,000		
Boardwalk	LF	\$300		
Site Preparation (including permits and design above typical expenses)				
NC EEP - Stream mitigation	LF	\$350		
NC EEP - Non Riparian Wetland mitigation	Acre	\$46,000		
NC EEP - Riparian Wetland mitigation	Acre	\$64,000		
Environmental Permitting	Each	\$15,000		
Utility Pole Relocation	each	\$10,000		

SF = Per Square Foot
LF = Per Linear Foot

- Factors that will affect future costs:
- Asphalt prices (\$588 per ton as of December 2011)
 - Inflation, Labor and Land Costs

an uncertain financial environment makes prioritization of projects more challenging. More importantly, the budget item should be available to quickly match grant or other sources of funds that require a cash match. Other locally-driven sources include benefit assessment districts, various bonding instruments, or work with private developers to either require or cost-share in various improvements including right-of-way dedication and construction costs.

State and Federal Funding Options. The amount of state and federal funds available to local governments for all kinds of improvements has generally shrunk in real dollar terms, as fuel taxes that are normally indexed have been frozen at the state level in recent years.

Grants and Non-Profit Sources. While grants have certainly taken similar hits generally as other revenue sources, most of the ones that were important five or ten years ago are still around. Many of these are used to protect property or stream buffers for environmental preservation purposes, but greenway and trail facilities are often still viable components of grant-related projects. Coordinating volunteer and non-profit groups, perhaps to help maintain and even construct “soft” trails, should not be overlooked as an increasingly important role for organizations.

The following tables describe in more detail the specific financing sources that are the most likely to yield positive results for the County, although it is not all-inclusive and the availability or rules of some sources are changing on a near-constant basis. A volunteer coordinator position working in Buncombe County would not only coordinate volunteer and non-profit agencies to work together to optimize their functionality, but also take a lead role in pursuing grant funding in a coordinated fashion.

Estimates for Greenway Priority Corridors

Estimating costs for greenways that are not likely to be built until many years in the future is an inexact science. The best methods for estimating costs these costs is to use present-year unit costs (as of December 2011 published data) and assigning basic costs for paving and preparation/grading of the land for greenways. The estimates below are for the five new Priority Corridors identified in the Plan.

THESE ESITMATES DO NOT INCLUDE FACTORS SUCH AS:

- ◆ **LAND ACQUISITION** which can be very high and sometimes represent a cost higher than construction. They cannot be known until a detailed design effort is complete.
- ◆ **BRIDGES, RETAINING WALLS AND OTHER STRUCTURES**, which can be 40-50% of a project costs. They cannot be known until a corridor feasibility study or detailed design effort is complete.
- ◆ **MAINTENANCE AND OPERATIONS COSTS**, which are typically tied into an annual budget allocation. They vary by trail surface, trail location and environmental factors.

Estimates for the planned US 70 / Swannanoa River Greenway and NC 251/French Broad River Greenway contain more detailed estimates for bridges and retaining wall. These estimates are contained within those study documents. Estimates for the Wilma Dykeman RiverWay were not calculated due to the nature of that planned corridor, which includes significant roadway investments.

These estimates vary on a per-mile cost basis due to assumptions related to trail width and trail surface based on design typologies recommended through field evaluation. Those details in terms of segment typologies are contained in the detailed GIS files developed for Buncombe County as a result of this study.

Priority Corridors identified for this Plan	Length (approx. miles)	Trail-Only Construction Estimates
Weaverville / Reems Creek Greenway Corridor	17	\$ 3,500,000
Hominy Creek Greenway Corridor	10	\$ 4,000,000
Bent Creek Greenway Corridor	8	\$ 4,500,000
Lake Julian Greenway Corridor	19	\$ 7,000,000
Reynolds Greenway Corridor	3	\$ 600,000

Corridors Already Studied*	Length (approx. miles)	Feasibility Study Construction Estimate
US 70 / Swannanoa River Greenway Corridor	19	\$ 10,300,000
NC 251 / French Broad River Greenway Corridor	15	\$ 9,400,000

* These corridor studies contained more detailed analysis along several segments of each greenway, resulting in a more refined cost estimate that included bridges, retaining walls and other structures.

Source	Eligibility	Description	Project Type	More info
Municipal and County Bonds	■ County	Revenue, general obligation, special assessment and GARVEE bonds are used by various government entities – after a public referendum approving the bond proposal – to construct a variety of transportation improvements.	■ Greenway	NC G.S. 159-43 through 159-79 (GO Bonds)
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other	
Property Tax	■ County	Property taxes are the primary source of revenue for city and county governments and are used as part of their general funds. There is partnership potential in the use of these funds among the county, cities and towns.	■ Greenway	NC G.S. 150 § 161.7
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other	
County Sales Tax	■ County	Any sales tax increase would require a popular referendum vote by the population of Buncombe County. Most counties (83) have the same 2% sales tax rate as Buncombe; 17 have 8% with Mecklenburg at 8.25% due to a .5% transit sales tax already in place.	■ Greenway	NC Department of Revenue
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other	
Municipal or County Service (Business Improvement) District	■ County	Cities can form special tax improvement districts for downtowns; counties may apply them anywhere. In both cases, infrastructure is the intended use, which may include transportation projects including sidewalks.	■ Greenway	NC G.S. 160A-535 § 153A-300
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other	
Tax Increment Financing (TIF)	■ County	Generally encouraging redevelopment, TIFs (and synthetic TIFs) use marginal property value increases to pay off debt from private infrastructure investment.	■ Greenway	NC G.S. 159C-103
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other	

Source	Eligibility	Description	Project Type	More info
Occupancy Tax	■ County	Buncombe has a fairly typical hotel occupancy tax rate of 4%, in a range of 3% to 6% in almost every county. Uses are very broad as long as they are not applied to the construction of another hotel.	■ Greenway	NC G.S. 153A-155 § 160A-215
	■ Cities / Towns		■ Bicycle	
	Non-Profits		■ Pedestrian	
	Transit Operators		■ Amenities	
	School Districts		Connectivity	
	Other:		Other	
Spot Safety, Hazard Elimination & Small Urban Project (NCDOT)	■ County	The NCDOT sponsors these three programs through the NC Highway Safety Improvement Program. The Spot Safety program focuses on smaller (\$250,000 or less) projects and mentions pedestrian facilities by name. Small urban funds are a similar source, but not often used for trails projects.	■ Greenway	NCDOT Highway Safety Improvement Program
	■ Cities / Towns		■ Bicycle	
	Non-Profits		■ Pedestrian	
	Transit Operators		Amenities	
	■ School Districts		■ Connectivity	
	Other:		■ Other: Intersections	
Powell Bill Funds	County	This program is paid to municipalities for the purposes of maintaining or constructing local streets that are the responsibility of the municipalities or for planning, construction, and maintenance of bikeways and sidewalks that connect to greenways within municipal boundaries.	Greenway	NCDOT Powell Bill Program
	■ Cities / Towns		■ Bicycle	
	Non-Profits		■ Pedestrian	
	Transit Operators		Amenities	
	School Districts		■ Connectivity	
	Other:		Other: Grade Crossing Closures	
Conservation Tax Credits	■ County	Persons donating their land through conservation easements for public trails (among other uses) can receive up to \$250,000 or 25% of the fair market value of the land conserved. Credits are not transferable to new property owners.	■ Greenway	One North Carolina Naturally Conservation Tax Credit; NC G.S. 113A-231
	■ Cities / Towns		Bicycle	
	■ Non-Profits		Pedestrian	
	Transit Operators		Amenities	
	School Districts		Connectivity	
	■ Other: State		Other:	

Source	Eligibility	Description	Project Type	More info
Land and Water Conservation Fund	■ County	The LWCF program is managed by NCDENR for acquiring land at a single site with grants up to \$250,000 for permanent outdoor recreation uses.	■ Greenway	LWCF Overview by NC Division of Parks and Recreation
	■ Cities / Towns		Bicycle	
	■ Non-Profits		Pedestrian	
	■ Transit Operators		Amenities	
	■ School Districts		Connectivity	
	■ Other: Tribal		■ Other: Land	
North Carolina Recreational Trails Program Grant	■ County	NCDENR manages a trails grant program with amounts up to \$75,000 with a 25% match requirement. All grants are matched 1:1 with cash, donated property value, or in-kind services.	■ Greenway	North Carolina Recreational Trails Program Grant General Information
	■ Cities / Towns		Bicycle	
	■ Non-Profits		Pedestrian	
	■ Transit Operators		Amenities	
	■ School Districts		Connectivity	
	■ Other:		■ Other: Land	
Clean Water Management Trust Fund	■ County	The CWMTF can be used to plan and design greenways or acquire land (fee simple or conservation easement) for them in riparian areas ONLY. Construction costs are not eligible, but utilities are allowed in the corridor.	■ Greenway	Clean Water Management Trust Fund
	■ Cities / Towns		Bicycle	
	■ Non-Profits		Pedestrian	
	■ Transit Operators		Amenities	
	■ School Districts		Connectivity	
	■ Other:		■ Other: Land	
Community Development Block Grant Program	■ County	CDBG funds have been used to construct trail projects, such as the Boulding Branch Greenway in High Point, NC. Amounts are typically between \$50,000 and \$200,000. Projects should benefit low- and moderate-income persons.	■ Greenway	CDBG Information Website
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		Other:	
Parks and Recreation Trust Fund	■ County	NCDENR also matches the venerable PARTF grants, but these go to trail projects only infrequently as they are associated with parks facilities. The matching requirement is 50/50 in cash (no in-kind services) but land value can be used in lieu of cash.	■ Greenway	NC Parks and Recreation Trust Fund Website
	■ Cities / Towns		Bicycle	
	■ Non-Profits		Pedestrian	
	■ Transit Operators		Amenities	
	■ School Districts		Connectivity	
	■ Other: Public Authority		■ Other: Land	

Source	Eligibility	Description	Project Type	More info
State Transportation Improvement Program Projects (NCDOT)	■ County	NCDOT funds projects both incidental to highway construction / widening and independent bicycle/pedestrian projects based on established project selection criteria. Approval of metropolitan or rural planning organizations is required.	■ Greenway	NCDOT Bicycle and Pedestrian Transportation Funding Information
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other: Tribal		■ Other: Land	
Payment-in-Lieu Fees	■ County	Communities may choose to allow developers to pay a fee for future improvements required by the government that the development is located within instead of constructing the improvement. Note that private developers can often construct more for less money than their public sector counterparts due to mobilization and other costs.	■ Greenway	Buncombe County would need to address this through an ordinance.
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other: Land	
Foundation Grants	■ County	Like other grants, foundations issue funds for projects that meet specific requirements – and they are highly competitive. Deadlines, submission requirements, degree of interagency collaboration desired, and match characteristics vary greatly.	■ Greenway	Bikes Belong
	■ Cities / Towns		■ Bicycle	International Mountain Biking Association
	■ Non-Profits		■ Pedestrian	Rails-to-Trails
	■ Transit Operators		■ Amenities	Pigeon River Trust Fund
	■ School Districts		■ Connectivity	
	■ Other: Non-Profit Organizations		■ Other: Education	
Safe Routes to Schools	■ County	SRTS funding is distributed by NCDOT for the purpose of funding education programs, school-based audits that lead to infrastructure improvements within two miles of an elementary or middle school.	■ Greenway	www.saferoutesinfo.org
	■ Cities / Towns		■ Bicycle	
	■ Non-Profits		■ Pedestrian	
	■ Transit Operators		■ Amenities	
	■ School Districts		■ Connectivity	
	■ Other:		■ Other: Education	

Appendix II: Existing Programs in Buncombe County

The following list is a sample of how the greenways in Buncombe County and Asheville are currently being used (some are not on a greenway but along a nearby river or park). These were identified during a scanning process for the program elements of the Plan. They are not intended to represent all programs, agencies and organizations supporting greenways.

Environmental, Education & Stewardship

- ◆ RiverLink: organizes river and stream cleanups and restoration; has 4 active brownfields and employing phytoremediation for documentation and replication purposes; hosts numerous events along the greenways; uses greenways and parks as outdoor classrooms and setting for river-related events; developed design guidelines for greenway and river access; host adopt a greenway and adopt a stream programs; have 66 adopt a stream teams and 12 adopt a greenway teams; sells one-foot sections of greenway to use the money to pay for trails; established land trust focused on small parcels, riparian buffers and steep bluffs; land banking efforts are being used for greenways; acquired easements along the Swannanoa River through Azalea Road area.
- ◆ Asheville Greenworks: organizes litter cleanups. Worked with youth groups on the Waller tract to rid the area of invasive plants;
- ◆ Friends of Hominy Creek: sponsors clean-ups of the greenway and creek;
- ◆ Black Mountain Recreation and Parks Department : maintains a community garden near greenway at Recreation Park in Black Mountain. There are future plans for garden along the Hominy Creek Greenway.
- ◆ Black Mountain Elementary School: held Earth Day event with greenway focus, including all 275 elementary students for Flat Creek Greenway.;
- ◆ Owen High School uses stretch along Swannanoa river for biological study;
- ◆ Montreat College: Students at Montreat designed conceptual signs for greenway system;

- ◆ Boy / Girl Scouts Groups: organizes clean-ups and maintenance;
- ◆ Trout Unlimited : assists with some RiverLink events along the greenways. Hosts fishing events at Recreation Park and Lake Tomahawk in Black Mountain;
- ◆ Warren Wilson College: hosts cleanups and service days which sometimes focus on riparian areas. Professors take class field trips along river;
- ◆ Audubon Society: sponsors bird watching trips;
- ◆ RiverLink through partnership with Progress Energy: Used elements of wetland areas of Carrier Park to develop education package of tools for a local elementary school and installed boardwalks.
- ◆ Progress Energy: Donated land for first greenway in Asheville.

Recreation, Health & Wellness

- ◆ Healthy Buncombe. Eat Smart/Move More: provides information about where people can walk and bicycle in Buncombe County, including along the greenways;
- ◆ City of Asheville: holds the annual Mountain Sports Festival held at Carrier Park and other races at Carrier Park;
- ◆ Asheville Greenways Commission: planning guided walks along the greenway;
- ◆ Asheville Track Club : sponsors races along greenways and hold trainings at Carrier Park;
- ◆ RiverLink: host health-themed events along the greenways; presenting sponsor for the Outdoor Adventure Guide that lists greenways and recreations spots in WNC;
- ◆ National Trails Day: sponsors hikes along greenways;
- ◆ Asheville Hiking Meet-Up Groups : organizes hikes along greenway;
- ◆ Black Mountain Parks and Recreation Department: held a National Trails Day event for new greenway. Uses Oaks Trail for Valentine run and high school cross country races;

- ◆ Carolina Mountain Club: schedules hikes along greenway;
- ◆ Asheville on Bikes: hold rides that have focal points related to existing or planned greenways;
- ◆ Bike Gang: Triathlon used greenways (bike, float, drink);
- ◆ SORBA: Organizes numerous activities related to mountain biking.
- ◆ Blue Ridge Bike Club: leads novice rides on greenways;
- ◆ Army Reserve: trains at Carrier Park;
- ◆ Care Partners: uses greenways and French Broad River Park for persons in their physical rehabilitation programs.;
- ◆ RiverLink: Promotes active transportation modes to access river events;
- ◆ Individuals: use the greenways for walking, running, bicycling, walking with a baby stroller, in-line skating, skateboarding, and fishing.

Cultural

- ◆ Black Mountain Primary School – built boats to float in Flat Creek along the greenway;
- ◆ Town of Black Mountain: holds sculpture stroll along Lake Tomahawk;
- ◆ River Arts District: holds a Studio Stroll two times a year;
- ◆ Riverlink: hosted an outdoor sculpture exhibit in the park;
- ◆ City of Asheville: sponsors Easel Riders (mobile art lab);
- ◆ Black Mountain: a Buddhist group did a walking meditation by the community garden along the greenway trail.

Safety

- ◆ Buncombe County Parks, Greenways, and Recreation Department: have held bike safety classes for kids and County employees;
- ◆ Safe Routes to Schools: promotes physical activity among children and hosts annual walk to school events;
- ◆ Healthy Buncombe/Blue Ridge Bike Club: sponsors bicycle rodeos for children.

Appendix III: Detailed Results of 2011 Plan Survey—

1. Greenways and Trails are designated for bicycling, walking and similar uses along corridors that connect natural areas, parks, cultural attractions, neighborhoods, schools, community destinations and commercial areas. How often do you use greenways or trails in Buncombe County?

	Response Percent	Response Count
Almost every day	15.0%	77
Once or twice a week	19.8%	102
Two or three times per week	15.9%	82
Once or twice a month	24.1%	124
Less than once a month	15.7%	81
Never	9.5%	49
answered question		515
skipped question		0

2. Buncombe County, along with its partners throughout the region, is conducting a Greenway & Trails Master Plan. This survey is the first step in public involvement as we generate key themes and ideas for the plan. We will be conducting specific community outreach throughout Buncombe County to gather more ideas. We also want to gather input from visitors to the region. (NOTE: Maximize your screen for full view.) Please tell us where you live in Buncombe County. If you do not live in Buncombe County, please indicate from where you visit us.

	Response Percent	Response Count
Arden	6.1%	29
Asheville	58.6%	277
Avery Creek	0.8%	4
Barnardsville	2.5%	12
Biltmore Forest	0.2%	1
Black Mountain	10.4%	49
Candler	3.0%	14
Enka	1.3%	6
Fairview	3.0%	14
Leicester	2.5%	12
Montreat	0.0%	0
Skyland	1.1%	5
Swannanoa	3.0%	14
Weaverville	5.1%	24
Woodfin	2.5%	12
Other --or -- I do not live in Buncombe County (please specify)		34
answered question		473
skipped question		42

3. Do you think more greenways and trails will benefit these community factors?

	Yes	No	Response Count
Quality of Life	97.1% (475)	2.9% (14)	489
Recreational Opportunities	98.0% (478)	2.0% (10)	488
Property Values	94.8% (453)	5.2% (25)	478
Community Health & Fitness	97.3% (474)	2.7% (13)	487
Economic Development & Tourism	92.5% (443)	7.5% (36)	479
Community Appearance	96.9% (469)	3.1% (15)	484
Community Connectivity	94.7% (460)	5.3% (26)	486
More Commuting Options	89.7% (428)	10.3% (49)	477
Help Attract & Retain Businesses	88.1% (413)	11.9% (56)	469
Improve the Environment	95.0% (460)	5.0% (24)	484
	answered question		491
	skipped question		24

4. Please indicate the type of activities for which you or your children have used a greenway or trail in Buncombe County:

	Response Percent	Response Count
Walking / running	95.1%	446
Bicycle riding	73.6%	345
Mountain biking	33.3%	156
Walking pets	50.1%	235
Commuting to work	21.7%	102
Going to school	7.7%	36
Stroller / Kids exercise	22.2%	104
Shopping trips	10.0%	47
Nature observation	63.8%	299
Skateboarding / Inline skating	5.3%	25
Horseback riding	1.5%	7
Winter recreation (cross-country skiing / snowshoeing)	11.7%	55
Other (please specify)		30
	answered question	469
	skipped question	46

5. Do any of these issues deter you or your family from using greenways and trails? You may answer more than one.

	Response Percent	Response Count
No greenway or trail nearby	64.4%	278
Greenway / trail doesn't go where I want to go	48.6%	210
Greenway/trail is a dead-end	37.7%	163
Route is too indirect	13.2%	57
Lack of time	12.0%	52
Hazards or obstructions (e.g. uneven pavement, puddles)	9.3%	40
Too secluded / lacks visibility	9.5%	41
Not enough connections to get to the greenway	52.1%	225
No lighting / too dark	11.8%	51
Intersects a street that is uncomfortable to cross	10.9%	47
Don't know where the greenways or trails are located	28.9%	125
No separation between pedestrians and bicyclists	9.3%	40
Don't feel safe	9.0%	39
Lack of signage	11.8%	51
Other (please specify)		38
answered question		432
skipped question		83

6. What amenities would you like to see along greenways & trails (limit 5)?

	Response Percent	Response Count
Parking areas at trailheads	52.9%	245
Bus connections to trailheads	25.1%	118
Volunteer-led tours	3.9%	18
Rest areas / shelters	20.3%	94
Picnic tables	22.5%	104
Directional signage / mile markers	43.8%	203
Bicycle / rollerblade rental	8.4%	39
Bicycle parking / Lockers	17.9%	83
Restrooms	48.0%	213
Benches / Gathering Spaces	30.9%	143
Horseback riding amenities	1.3%	6
Performance space	5.6%	26
Interpretive / educational signage	21.0%	97
Drinking water	45.8%	212
Native trees & shrubs	57.0%	264
Wildlife benefits such as nesting boxes and wetlands	50.3%	233
Community gardens	31.3%	145
Pet clean-up / water stations	34.3%	159
Dog parks	13.8%	63
Trash cans	47.5%	220
Food & beverage concessions	2.8%	12
Fishing access	11.0%	51
Other (please specify)		39
answered question		463
skipped question		52

7. What characteristics are vital in developing a quality greenways / trails system and encouraging you and your family to use it?

	Not Vital	Not Sure	Vital	Very Vital	Rating Average	Response Count	
More greenways and trails	3.5% (16)	2.2% (10)	24.8% (115)	69.5% (322)	3.60	463	
More sidewalk connections to greenways	8.0% (38)	10.5% (47)	34.2% (153)	47.3% (212)	3.21	448	
More bike lane / route connections	8.9% (40)	10.5% (47)	28.6% (128)	51.9% (232)	3.23	447	
Better maintenance	10.7% (45)	30.1% (126)	44.2% (185)	15.0% (63)	2.63	419	
More marked pedestrian crossings	17.2% (72)	29.4% (123)	37.6% (157)	15.8% (66)	2.52	418	
More lighting	31.2% (130)	32.6% (136)	27.3% (114)	8.9% (37)	2.14	417	
More benches or rest areas	36.7% (152)	30.7% (127)	25.1% (104)	7.5% (31)	2.03	414	
Better directional signage	18.0% (75)	27.4% (114)	40.6% (169)	13.9% (58)	2.50	416	
More information about the pathways	11.4% (50)	17.4% (76)	47.1% (206)	24.0% (105)	2.84	437	
More landscaping on the greenways / trails	33.0% (135)	33.3% (136)	26.4% (108)	7.3% (30)	2.08	409	
More visibility / less secluded	33.6% (136)	31.6% (128)	25.7% (104)	9.1% (37)	2.10	405	
More things to do along the greenway	57.2% (233)	28.0% (114)	10.6% (43)	4.2% (17)	1.82	407	
Accommodations for horseback riding	76.3% (305)	19.3% (77)	3.5% (14)	1.0% (4)	1.29	400	
Public art / contests	55.7% (226)	24.4% (99)	17.2% (70)	2.7% (11)	1.87	406	
						answered question	467
						skipped question	48

8. What are the top three (3) destinations IN YOUR NEIGHBORHOOD that you would like to access by walking or riding a bicycle along a greenway or trail? Please be specific.

	Response Percent	Response Count
Destination 1	100.0%	363
Destination 2	87.3%	317
Destination 3	66.1%	240
	answered question	363
	skipped question	152

9. What are the top five (5) destinations and points of interest ACROSS BUNCOMBE COUNTY that you would like to walk or ride a bicycle via a greenway or trail? Please be specific.

	Response Percent	Response Count
Destination 1	100.0%	328
Destination 2	89.9%	295
Destination 3	81.4%	267
Destination 4	64.6%	212
Destination 5	51.2%	168
	answered question	328
	skipped question	187

