



2018 Roanoke Valley Greenway Plan



Cover Photo by Dave McCoy: Roanoke River Greenway

2018

Roanoke Valley Greenway Plan

Approved by:
Roanoke Valley Greenway Commission
June 27, 2018

Signed by:



Arthur L. LaRoche, III

Chairman, Roanoke Valley Greenway Commission

Produced by
Roanoke Valley Greenway Commission
and
Roanoke Valley – Alleghany Regional Commission

In cooperation with
City of Roanoke, City of Salem, Botetourt County, Roanoke County, and Town of Vinton

EXECUTIVE SUMMARY

In 2017 the Roanoke Valley Greenway Commission celebrated its 20th anniversary and began looking ahead to plan for the future. The Greenway Commission has developed this 2018 Plan in conjunction with the Cities of Roanoke and Salem, the Counties of Roanoke and Botetourt, the Town of Vinton, and the Roanoke Valley-Alleghany Regional Commission, taking into account progress and changes since 2007 and looking at specific goals and direction for the next ten years. The 2018 Plan includes off-road and on-road routes, recognizing the need to tie neighborhoods to the bigger network to promote a bikeable and walkable community. While many miles of greenways and trails are now built, many routes are still conceptual and represent a vision for a comprehensive greenway network.

This 2018 Plan provides an update on the status of greenway routes, documents progress meeting goals established in 2007, and incorporates Botetourt County, a new member of the Greenway Commission, into the planning process and vision. The Plan incorporates two rounds of public comments, as well as staff perspective.

Several developments and issues emerged during the update process.

- Greenways have become important to the economic vitality of the region, supporting tourism, recruitment, redevelopment, festivals, fitness and a healthy environment. Greenways are the core infrastructure for the region's brand, Roanoke Outside.
- Greenways and trails are the face of the region for many visitors and potential businesses and thus should be well marked and well maintained, providing a pleasant and rewarding experience for all.
- Citizens want a bikeable and walkable community and need expanded signage and on-road facilities to provide connectivity between greenways, neighborhoods, and other destinations.
- All user groups need to practice common courtesies, good greenway etiquette, and safe usage practices.
- The growing greenway network requires increasing maintenance budgets to maintain service.

The vision for the Roanoke Valley Greenway network is to have Roanoke River Greenway as the backbone of the system, running west to east, and then having north-south routes tying to Botetourt County and to the existing public lands and trail opportunities surrounding the Valley. The greenway network is part of the bicycle and pedestrian infrastructure for the region and provides the arterial routes, with connectivity to neighborhoods via sidewalks, bike lanes, and on-road facilities.

Implementation of this plan will require continued cooperation among the many partners and will offer opportunity for all of the community to be involved. The vision of finishing the Roanoke River Greenway has been a resounding theme echoed from the citizens and corporations, but the residents of the valley are looking beyond Roanoke River to the next projects and total connectivity. The dream of having a greenway network that provides facilities for transportation to work, recreation, health, and social gatherings is laid out herein and challenges all partners to focus efforts on implementation and incorporation of greenways in development.

ACKNOWLEDGEMENTS

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Robert Beatty	Botetourt County GIS Analyst and Greenway Commissioner
Liz Belcher	Roanoke Valley Greenway Coordinator
Warren Clark	Botetourt County Greenway Commissioner
Megan Cronise	Roanoke County Principal Planner and Greenway Commissioner
Bailey DuBois	Roanoke County Planner II and Greenway Commissioner
David Holladay	Roanoke County Planning Administrator
Dee King	City of Salem Greenway Commissioner
Bud LaRoche	Town of Vinton Greenway Commissioner
Ursula Lemanski	National Park Service, Rivers Trails and Conservation Assistance, Virginia Projects Manager
Anita McMillan	Town of Vinton Planning and Zoning Director and Greenway Commissioner
Amanda McGee	Roanoke Valley - Alleghany Regional Commission Regional Planner
Jerod Myers	Botetourt County Planner and Greenway Commissioner
Renee Powers	City of Roanoke Trails and Greenways Supervisor
Lee Osborne	Transportation Planning Organization Representative and Greenway Commissioner
Frank Simms	Roanoke County Greenway Commissioner
Ben Tripp	City of Salem Planning Director and Greenway Commissioner
Donnie Underwood	City of Roanoke Parks and Greenways Planner and Greenway Commissioner
Lindsay Webb	Roanoke County Parks Planning and Development Manager and Greenway Commissioner

TABLE OF CONTENTS

Executive Summary	i
Acknowledgments	ii
Table of Contents	iii
Figures and Tables	iv
Glossary of Acronyms and Abbreviations	vi
Chapter 1 Introduction	1
1.1 Purpose of This Update	1
1.2 History of Greenway Planning in the Roanoke Valley	1
1.3 Changes and Growth in the Region	2
1.4 Vision for the Future of Greenways and Trails	2
Chapter 2 Status of the Roanoke Valley Greenway Program	3
2.1 Greenway Partners	3
2.2 Progress on Greenway Planning, Construction, and Funding	5
2.3 Addition of Botetourt County	13
2.4 Review of Goals, Objectives, and Strategies	15
Chapter 3 Community Input and Issues	21
3.1 Greenway Plan Update Process	21
3.2 Public Input and Discussion	22
3.3 Key Issues and Recommendations	24
3.4 Other Takeaways	27
Chapter 4 Greenway Network	29
4.1 Prioritization of Greenways	29
4.2 Greenway Routes	33
Chapter 5 Regional Transportation Connections	71
5.1 Other Regional Plans	71
5.2 Recommended Connections	75
Chapter 6 Goals, Objectives, and Implementation Strategies	85
Appendix A Intergovernmental Agreement Establishing the Roanoke Valley Greenway Commission	
Appendix B 2017 On-line Survey Questions and Responses	
Appendix C Public Input from 2017 Community Meetings	
Appendix D Public Response to Draft 2018 Plan	
Appendix E Tinker Creek Greenway Conceptual Plan	
Appendix F Web Sites for Referenced Documents and Organizations	
Appendix G Bibliography of Design Standards	
Appendix H 2018 Greenway Plan Network Map	

FIGURES

Figure 2-1	Roanoke Valley Greenway Commission Service Area	3
Figure 2-2	2007 Plan Map of Proposed Greenway Network	9
Figure 3-1	Destinations and Priorities Identified by the Public	23
Figure 4-1	Blueway Routes	31
Figure 4-2	Birding and Wildlife Trails in the Mountain Region of Virginia	36
Figure 4-3	Carvins Cove Trail Network: Map of Existing Trails	41
Figure 4-4	Catawba Greenway: Map of Existing and Proposed Sections	42
Figure 4-5	Explore Park Map of Existing Trails	45
Figure 4-6	Green Hill Park: Map of Roanoke River Greenway and Other Trails	47
Figure 4-7	Greenfield: Map of Trails at Botetourt Center and Greenfield Park	48
Figure 4-8	Hanging Rock Battlefield Trail Map	49
Figure 4-9	Havens Wildlife Management Area Map	50
Figure 4-10	Mason Creek Greenway Phase III: Proposed linkages between existing sections	55
Figure 4-11	Mill Mountain Greenway Map	57
Figure 4-12	Mill Mountain Park Trail Map	59
Figure 4-13	Mudlick Creek Greenway at Garst Mill Park	60
Figure 4-14	Murray Run Greenway and Fishburn Park Trails	61
Figure 4-15	Poor Mountain Preserve Trails	62
Figure 4-16	Read Mountain Preserve Trails	63
Figure 4-17	Roanoke River Greenway Status Map	66
Figure 4-18	Tinker Creek Greenway Study Area	68
Figure 5-1	Recommendations from the Bikeway Plan for the Roanoke Valley Area MPO, 2012	72
Figure 5-2	Map of Multimodal Centers and Districts, Regional Pedestrian Vision Plan, 2015	74
Figure 5-3	2018 Greenway Plan Regional Connectivity Map	76
Figure 5-4	Botetourt County Connections	77
Figure 5-5	City of Salem Connections	78
Figure 5-6	City of Roanoke Connections, Northwest	79
Figure 5-7	City of Roanoke Connections, Central and Southwest	80
Figure 5-8	Northern Roanoke County Connections	81
Figure 5-9	Southern Roanoke County Connections	82
Figure 5-10	Town of Vinton Connections	83

TABLES

Table 2-1	Plans with Greenway Components, Adopted since 2007	6
Table 2-2	Growth of the Greenway Network, Comparative Mileage	7
Table 2-3	Status of Greenway Routes in the 2007 Greenway Plan as of 12/31/2017	8-9
Table 2-4	On-Road Bicycle Accommodations Built by 12/31/2017	11
Table 2-5	Grants and Allocations for Roanoke Valley Greenways	13
Table 2-6	Existing Trails Incorporated into the Greenway Network with the Addition of Botetourt County	14
Table 2-7	Progress on 2007 Goals, Objectives and Strategies	15-17
Table 2-8	Progress on 1995 Goals, Objectives and Strategies	18-19
Table 4-1	2018 Roanoke Valley Greenway Network	32
Table 4-2	Birding and Wildlife Trail Routes in the Region	36
Table 4-3	U. S. Forest Service Trails within the Roanoke Valley Greenway Service Area	52

Table 4-4	Status of Roanoke River Greenway	64
Table 5-1	2006 Rural Bikeway Plan Recommendations	73
Table 5-2	Multimodal Districts and Centers without Direct Greenway Intersections	75
Table 5-3	Recommended Connections to the Greenway Network, Botetourt County	77
Table 5-4	Recommended Connections to the Greenway Network, City of Salem	78
Table 5-5	Recommended Connections to the Greenway Network, City of Roanoke	79
Table 5-6	Recommended Connections to the Greenway Network, Roanoke County	81
Table 5-7	Recommended Connections to the Greenway Network, Town of Vinton	83
Table 6-1	Implementation Strategies 2018	85-89

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

1995 Plan	Conceptual Greenway Plan, Roanoke Valley, Virginia, December 1995
2007 Plan	2007 Update to the Roanoke Valley Conceptual Greenway Plan
2018 Plan	2018 Roanoke Valley Greenway Plan
AASHTO	American Association of State Highway and Transportation Officials
ATC	Appalachian Trail Conservancy
BRP	Blue Ridge Parkway
CEDS	Roanoke Valley Area Regional Comprehensive Economic Development Strategy
CPTED	Crime Prevention Through Environmental Design
DCR	Virginia Department of Conservation and Recreation
DGIF	Virginia Department of Game and Inland Fisheries
Greenway Commission	Roanoke Valley Greenway Commission
MPO	Metropolitan Planning Organization
NBATC	Natural Bridge Appalachian Trail Club
NPS-APPA	National Park Service, Appalachian National Scenic Trail
Pathfinders	Pathfinders for Greenways, a non-profit support group
RATC	Roanoke Appalachian Trail Club
Regional Commission	Roanoke Valley – Alleghany Regional Commission
RIMBA	Roanoke Chapter of International Mountain Bicycling Association
RSTP	Regional Surface Transportation Program, a funding source for regional projects
RTCA	Rivers, Trails, and Conservation Assistance Program of the National Park Service
RVARC	Roanoke Valley - Alleghany Regional Commission
RVTPO	Roanoke Valley Transportation Planning Organization
TA	Transportation Alternatives Funding, formerly called Transportation Enhancements
TTC	Transportation Technical Committee (of the Rvtpo)
USFS	U.S. Forest Service (of the U.S. Department of Agriculture)
VDOT	Virginia Department of Transportation
WMA	Havens Wildlife Management Area
WVWA	Western Virginia Water Authority

1. INTRODUCTION

1.1. PURPOSE OF THIS UPDATE

In 2017 the Roanoke Valley Greenway Commission celebrated its 20th anniversary and began looking ahead to plan for the future. This document provides a review of the [2007 Update to the Roanoke Valley Conceptual Greenway Plan](#) (2007 Plan) and a look forward to the next decade. The purpose is to document progress towards goals identified in previous plans, to consider additional routes and issues, and to incorporate Botetourt County, a new member of the Greenway Commission, into the planning process and vision.

1.2. HISTORY OF GREENWAY PLANNING IN THE ROANOKE VALLEY

John Nolen first proposed “greenways” for Roanoke by including parkways along the river and streams in the 1907 and 1928 City of Roanoke comprehensive plans. Today’s greenway program began with completion of the [Conceptual Greenway Plan, Roanoke Valley, Virginia in December 1995](#) (1995 Plan). The 1995 Plan was developed under the direction of a regional Greenways/Open Space Steering Committee of citizens and planning staff meeting at the Fifth Planning District Commission (now called the Roanoke Valley-Alleghany Regional Commission, hereafter referred to as the Regional Commission) and included 51 routes, 24 of them off-road and 27 on-road. The 1995 Plan led in 1996 to hiring a greenway coordinator, forming an independent land trust, and establishing a non-profit friends group called Pathfinders for Greenways. In 1997 the City of Roanoke, Roanoke County, the City of Salem, and the Town of Vinton signed an Intergovernmental Agreement setting up the Roanoke Valley Greenway Commission (hereafter referred to as the Greenway Commission) to steer the program and adopted the 1995 Plan into their comprehensive plans.

Construction was not far behind, and the first greenway segment opened at Garst Mill Park in August 1997. In the early years, the Greenway Commission and localities focused on projects that were possible on existing public land or in conjunction with other infrastructure improvements. In developing the 2007 Plan, which documents those early developments, the Greenway Commission used a consultant to help analyze the organizational structure and the way things were working, examining the roles and responsibilities of various partners. That led to revisions to the Intergovernmental Agreement to include locality staff on the Greenway Commission, as well as representatives from major partners like Pathfinders for Greenways and the Roanoke Valley Transportation Planning Organization (RVTPPO). The 2007 Plan included a new prioritization of routes, with 35 off-road routes and trail destinations and with on-road routes included in the regional Bikeway Plan.

This document, the 2018 Plan, is an update of the 2007 Plan. The Greenway Commission has developed this 2018 Plan in conjunction with the localities and the Regional Commission, taking into account progress and changes since 2007 and looking at specific goals and direction for the next ten years. The 2018 Plan once again includes on- and off-road routes, recognizing the need to tie neighborhoods to the bigger network to promote a bikeable and walkable community. While many miles of greenways and trails are now built, many routes are still conceptual and represent a vision for a comprehensive greenway network.

TERMINOLOGY: WHAT IS A GREENWAY?

Greenways are linear parks, corridors of natural or open space:

- following land or water features such as streams, rivers, canals, utility corridors, ridgelines, or rail lines and
- managed for conservation, recreation, and/or alternative transportation and
- including trails for pedestrians, bicyclists, and other trail users.

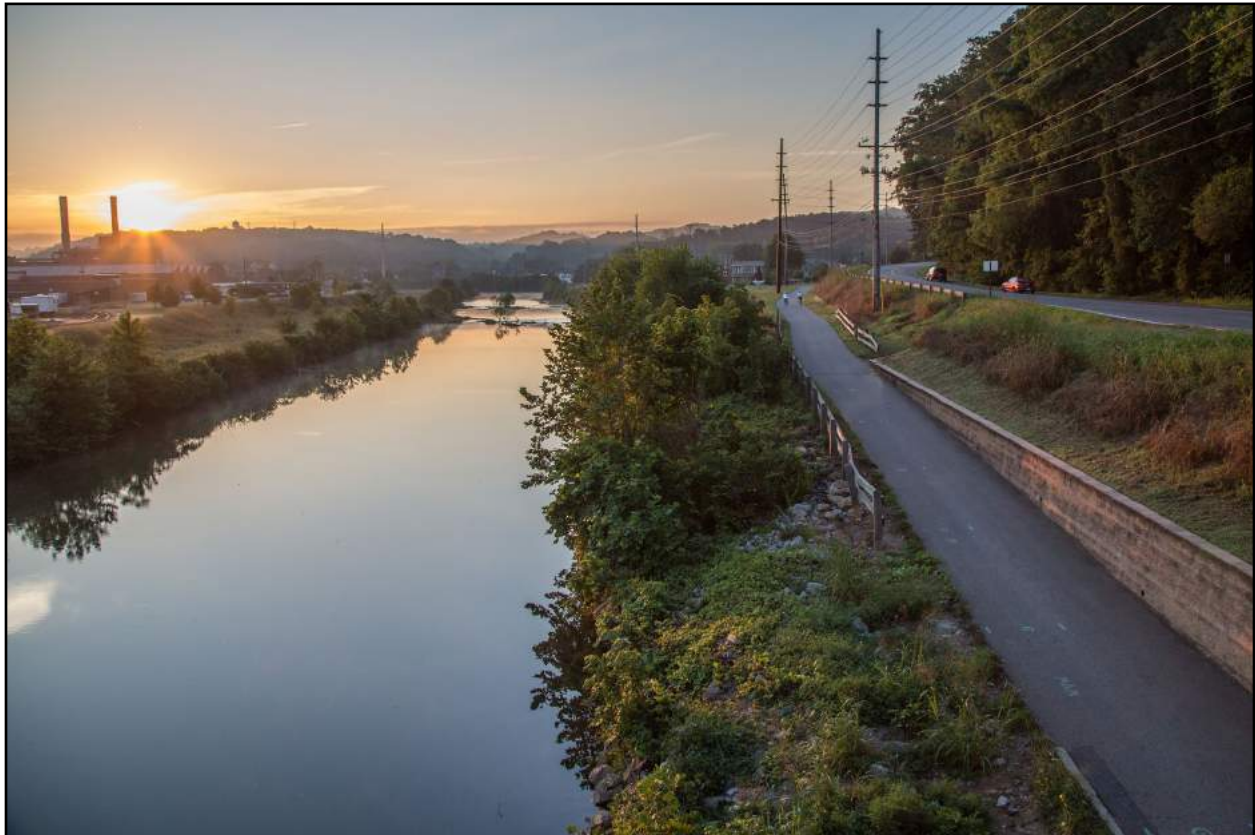
*2007 Update to the Roanoke Valley Conceptual Greenway Plan
(p. 1-2)*

1.3. CHANGES AND GROWTH IN THE REGION

Since the 2007 Plan, the Roanoke region has truly embraced the greenway system. The Greenway Commission undertook the Bridge the Gap campaign, which culminated in over \$13 million in private and regional transportation funds being allocated to Roanoke River Greenway. As Roanoke River Greenway has grown in length, more and more people have come to depend on it for daily needs, such as exercise, commuting, and special events. The vision of “Roanoke Outside” began to grow, with greenways and trails as the core infrastructure to access outdoor amenities throughout the valley. This push has led to an economy more focused on the importance of having a bikeable and walkable community with many outdoor recreation options nearby. The region has become a bicycling destination for both mountain bikers and road cyclists. The greenways are increasingly recognized as an important regional amenity, supporting redevelopment opportunities, attracting new businesses, aiding in employee and student recruitment, while encouraging housing construction, festivals, outfitters and tourism growth. In 2016, Botetourt County embraced this vision by joining the Greenway Commission, effectively doubling the geographic area of the greenway region.

1.4. VISION FOR THE FUTURE OF GREENWAYS AND TRAILS

The proposed Roanoke Valley Greenway network is shown on the map included in this 2018 Plan, Appendix H, located inside the back cover. The vision is to have Roanoke River Greenway as the backbone of the system, running west to east, and then having north-south routes tying to Botetourt County and to the existing public lands and trail opportunities surrounding the Valley. The greenway network is part of the bicycle and pedestrian infrastructure for the region and provides the arterial routes, with connectivity to neighborhoods via sidewalks, bike lanes, and on-road facilities.



Construction of Roanoke River Greenway has supported redevelopment of adjacent facilities, such as the River House, Wasena Taproom, the Bridges, and, in 2018, a building at the 9th Street industrial park for residential housing.

Photo by Darrell Powledge

2. STATUS OF THE ROANOKE VALLEY GREENWAY PROGRAM

2.1. GREENWAY PARTNERS

2.1.1. Roanoke Valley Greenway Commission

The Roanoke Valley Greenway Commission was formed in 1997 by an Intergovernmental Agreement among four local governments. With the update to the Greenway Plan in 2007, the Intergovernmental Agreement was revised, and it was revised again in 2016 when Botetourt County joined (Appendix A). The Greenway Commission is now comprised of five localities with three citizen members appointed by each of the participating governments, two staff appointees from each, one member appointed by the Roanoke Valley Transportation Planning Organization (RVTPO), one member from Pathfinders for Greenways, and non-voting ex officio members representing interested organizations.

The purpose of the Greenway Commission is to promote and facilitate coordinated direction and guidance in the planning, development, and maintenance of a system of greenways throughout the Roanoke Valley. In accordance with the Intergovernmental Agreement, the Greenway Commission's responsibilities are to encourage incorporation of greenways into each jurisdiction's planning efforts, explore greenway opportunities, make recommendations on legislation, investigate funding and grants, recommend standards, pursue partnerships, and coordinate the efforts of the federal, state, and local governments involved.

2.1.2. Local Governments

The greenway program is multi-jurisdictional, including the City of Roanoke, Roanoke County, the City of Salem, the Town of Vinton, and Botetourt County. The five jurisdictions help fund an office for the Greenway Coordinator on a per capita basis. The localities own and operate the greenways, and each has staff responsible for management and maintenance. The localities match capital grants within their respective jurisdictions, oversee planning and construction projects, and provide extensive staff time and in-kind services for greenway planning, construction, and management.

When the Intergovernmental Agreement was adopted in 1997, the greenway movement in the valley was a new frontier. Over time each locality has developed internal processes and staff expertise to deal with many greenway issues, and thus over time the Greenway Commission's role has evolved. That role varies by jurisdiction, depending on the locality's needs and staffing. The Greenway Commission strives to be responsive in complementing the localities' programs and in finding resources to help meet localities' needs.



Figure 2-1: Roanoke Valley Greenway Commission Service Area includes the City of Roanoke, City of Salem, Roanoke County, Town of Vinton, and Botetourt County.

2.1.3. Pathfinders For Greenways

Pathfinders for Greenways, Inc. (Pathfinders) is a 501(c)(3) grass roots citizen organization with a volunteer board united by the vision of establishing a first-class regional greenway system within the Roanoke Valley. The Pathfinders' purposes are to promote and encourage development of a greenway network, educate citizens and officials on greenway benefits and value, raise and receive gifts, donations and grants, organize volunteers to assist with greenway development and maintenance, and sponsor greenway promotional efforts. Pathfinders has been particularly effective in designing, building and maintaining natural surface trails, and it is due to their expertise and efforts that the 2007 Plan expanded the network to include "trail nodes," destination public lands with natural surface trails. Pathfinders' volunteers donate 5,000+ hours of service each year and have purchased over \$100,000 worth of trail building equipment.

2.1.4. Supporting Organizations

2.1.4.1 Roanoke Valley-Alleghany Regional Commission

The Roanoke Valley-Alleghany Regional Commission, or Regional Commission, is a state-established regional planning organization. It provides assistance to local governments for land use planning, transportation planning, mapping, project management services, and grant applications. The Regional Commission sponsored and facilitated development of the initial greenway plan in 1995, obtained a grant for the update in 2007, and has developed the regional bicycle plans. It has continued to provide greenway services, including mapping, web assistance, use counts, bicycle route assessment and planning, and open space planning. In addition, the Regional Commission office houses the Roanoke Valley Transportation Planning Organization (RVTPO), also known as the Metropolitan Planning Organization (MPO), a federally required body responsible for regional transportation planning in urbanized areas. The Greenway Coordinator serves on the Transportation Technical Committee (TTC) of the RVTPO, and the RVTPO has an appointed member to the Greenway Commission.

2.1.4.2 Virginia Department Of Transportation

The importance of the Virginia Department of Transportation (VDOT) to the greenway program has grown significantly since the 2007 Plan. From the beginning of the program, there have been "Enhancement" transportation grants that could provide funding for greenway construction. Other grant funds administered through VDOT have become available through the years, providing significant greenway funding. VDOT helps the localities understand grant requirements, comply with federal and state regulations, and meet environmental regulations. VDOT maintains the roads in the counties and has been the implementing agency for striping of bike lanes and installation of bicycle signage in those jurisdictions.

2.1.4.3 Other Partners

The Intergovernmental Agreement allows ex-officio positions on the Greenway Commission. At this time, ex-officio members include the Western Virginia Water Authority (WVWA), Roanoke Regional Partnership, Blue Ridge Bicycle Club, Roanoke Chapter of International Mountain Bicycling Association (RIMBA), and Hollins University. The Greenway Commission has procedures for adding and removing members and reviews the membership annually.

Other groups involved in greenways in the past include Roanoke Appalachian Trail Club (RATC), Appalachian Trail Conservancy (ATC), Western Virginia Land Trust, Valley Beautiful Foundation, Roanoke Valley Urban Forestry Council, Foundation for Roanoke Valley, and Greater Raleigh Court Civic League. Other neighborhood groups have been involved with specific projects, and citizens, corporations, and civic organizations are encouraged to be actively involved in greenway planning and construction. The Greenway program has received valuable assistance from Virginia Road and Transportation Builders Association, Boy Scouts, Girl Scouts, Roanoke Kiwanis Club, Salem Rotary Club, corporations, equine enthusiasts, and volunteers from Rotary, Kiwanis, Valley Area Shared Trails, Roanoke College, Virginia Tech, North Cross School, the Governor's School for Science and Technology, and Faith Christian School.

The Greenway Commission has established important formal and informal connections to federal and state agencies. These include the Blue Ridge Parkway, National Park Service, Jefferson and George Washington National Forests, and Virginia Departments of Conservation and Recreation (DCR), Forestry, Transportation (VDOT), and Game and

Inland Fisheries (DGIF). The Greenway Commission and staff have assisted with statewide greenway conferences sponsored by DCR and with VDOT conferences and workshops, as well as providing advice to many jurisdictions interested in planning and constructing greenway systems.

2.2. PROGRESS ON GREENWAY PLANNING, CONSTRUCTION, AND FUNDING

2.2.1. Summary Of 2007 Plan

The 2007 Update to the Roanoke Valley Conceptual Greenway Plan (2007 Plan) included several components: an organizational analysis, a refinement of routes and their feasibility, and an assessment of the process of getting greenways funded and built. Using a grant from VDOT, the Greenway Commission and Regional Commission hired a consultant to complete a management analysis, develop alternative funding strategies, provide comparisons with other communities, and recommend implementation strategies. Two public input meetings were held, and the consultant conducted qualitative telephone interviews with key stakeholders, including elected officials, staff, and decision makers. The 2007 Plan addressed the issues raised at the public meetings and established Roanoke River Greenway as the #1 Priority. Much of the work done in the first ten years, exploring routes and their feasibility, played into the establishment of priority levels and recommended surfaces for all other projects. The 2007 Plan was adopted by each of the four local governments.

Significant steps taken after the 2007 Plan to implement its recommendations were:

- Revision of the Intergovernmental Agreement to include staff as voting members.
- Inclusion of Roanoke River Greenway in the flood reduction project within the City of Roanoke.
- Establishment and completion of the Bridge the Gap campaign to provide funding for construction of Roanoke River Greenway.
- Application for and receipt of significant grants for construction, including American Recovery and Reinvestment Act (Stimulus), Open Container, Regional Surface Transportation Program (RSTP), House Bill 2, Smart Scale, and Transportation Alternatives funding.

2.2.2. Regional Changes Since 2007

2.2.2.1 Regional Vision And Development

The landscape and focus of the Roanoke region have changed in the last ten years. Some of these changes are structural, as buildings have gone up or come down, others are economic as companies have moved out or in, and others are technological as things like smart phones have impacted the way people interact, the things they look for when selecting a job location, and the very branding of communities. Roanoke is no longer “a railroad town” but presents itself as appealing to outdoor enthusiasts; the Convention and Visitors’ Bureau now promotes Virginia’s Blue Ridge; and downtown living is popular in Roanoke, Salem, and Vinton. Buildings embody this changing landscape with the roof of the Taubman Museum facing I-581, the Virginia Tech Carilion Medical School anchoring the Jefferson Street redevelopment area near Roanoke River, and the River House apartments and Wasena City Tap Room defining neighborhood redevelopment and re-use.

In 2009 the Roanoke Regional Partnership, a regional economic development organization, recognized the untapped potential of the region’s natural assets and initiated Roanoke Outside to leverage natural assets to attract investment and talent to the region. With the hiring of staff to promote this vision, the Partnership developed an extensive web site compiling information from multiple organizations to provide a comprehensive list of outdoor resources, trails, and outfitters. They began promoting the outdoors through weekly emails and events like Radical Reels and GO Fest. The Roanoke Regional Partnership recognizes the importance the greenway system plays in growing the regional economy and incorporates greenways into regional marketing. The greenways are viewed as a top selling point for the region, and the Partnership has fully supported the implementation of the greenway plans.

During these changes, greenways have been increasingly recognized as important to attracting millennial employees, promoting health and wellness, contributing to an ecological mindset that helps address environmental issues, and providing a quality of life and facility that citizens can love. Greenways are now a target location for social interaction,

with huge weekly pub runs, countless races and festivals, and numerous adjacent breweries. Greenways have become a training ground for athletes, a free gym, the place to walk your dog, the place to meet and greet your neighbors, and the thing to show to travel writers and economic prospects. The greenway infrastructure is supported by a growing network of on-road bike lanes and by bike share stations.

2.2.2.2 Relevant Plans

As greenways have been built and citizens have become familiar with their benefits, the demand for more has risen. Advocates mention greenways at public meetings on a variety of topics, such as art, and push for greenways to be included in neighborhood and regional plans. Since the 2007 Plan was adopted, plans have been developed in all jurisdictions that incorporate greenway elements (Table 2-1).

Table 2-1: Plans with Greenway Components, Adopted since 2007	
<p><u>Botetourt County</u></p> <ul style="list-style-type: none"> • 2007: Town of Buchanan Comprehensive Plan • 2010: Botetourt County Comprehensive Plan Update • 2010: Town of Troutville, Virginia Strategic Plan • 2011: Botetourt County Strategic Plan 2011-2015 • 2016: Botetourt County Board of Supervisors Strategic Priorities • 2016: Gateway Crossing Area Plan • 2017: Parks, Recreation, Greenways and Blueways Section of Botetourt County Comprehensive Plan <p><u>City of Roanoke</u></p> <ul style="list-style-type: none"> • 2007: Greater Raleigh Court Neighborhood Plan • 2007: Parks and Recreation Department Master Plan Update • 2008: City-Wide Brownfield Redevelopment Plan • 2008: Mountain View/Norwich Corridor Plan • 2008: South Roanoke Neighborhood Plan • 2009: Old Southwest Neighborhood Plan • 2010: Carvins Cove Natural Reserve Trail Management Plan • 2010: Loudoun-Melrose/Shenandoah West Neighborhood Plan • 2010: Melrose-Rugby Neighborhood Plan Update • 2010: South Jefferson Redevelopment Area, Amendment 1 • 2011: Arts and Cultural Plan • 2011, 2012: Countryside Master Plan • 2013: Evans Spring Area Plan • 2013: Roanoke Parks and Recreation Update to the 2007 Master Plan • 2017: Downtown Roanoke 2017 Plan <p><u>Roanoke County</u></p> <ul style="list-style-type: none"> • 2007: Roanoke County Comprehensive Master Plan for Parks and Facilities • 2008: Hollins Area Plan • 2008: Mount Pleasant Community Plan • 2009: Route 221 Area Plan • 2010: Vinton Area Corridors Plan • 2012: Glenvar Community Plan • 2016: Explore Park Adventure Plan • 2016: Roanoke County Community Strategic Plan • 2018: Draft 419 Town Center Plan (under review) 	<p><u>City of Salem</u></p> <ul style="list-style-type: none"> • 2012: Comprehensive Plan of the City of Salem, VA • 2016: Downtown Plan <p><u>Town of Vinton/Roanoke County</u></p> <ul style="list-style-type: none"> • 2010: Vinton Area Corridors Plan <p><u>Town of Vinton</u></p> <ul style="list-style-type: none"> • 2010: Downtown Vinton Revitalization Plan • 2016: Town of Vinton Urban Development Areas <p><u>Blue Ridge Parkway</u></p> <ul style="list-style-type: none"> • 2015: Roanoke Valley/Blue Ridge Parkway Trail Plan, Environmental Assessment <p><u>Roanoke Regional Partnership</u></p> <ul style="list-style-type: none"> • 2014: Connections: Annual Report 2014 <p><u>Roanoke Valley Alleghany Regional Commission (RVARC)</u></p> <ul style="list-style-type: none"> • Annual: RVARC Annual Reports • Annual: Roanoke Valley Area Regional Comprehensive Economic Development Strategy (CEDS) • 2007: Roanoke Valley-Alleghany Regional Strategic Plan, 2007 Update • 2007: The Five Pillars of Economic Development • 2010: Annual Report on Regional Economic Progress • 2010: Existing and Possible Urban Tree Canopy, Reports for City of Roanoke, City of Salem, Roanoke County and Town of Vinton • 2014: Partnership for a Livable Roanoke Valley Plan <p><u>Roanoke Valley Transportation Planning Organization (RVTPPO)</u></p> <ul style="list-style-type: none"> • Annual: RVTPPO Performance Measures Reports • 2010: Route 419 Corridor Plan • 2011: 2035 Rural Long Range Transportation Plan • 2012: Bikeway Plan for the RVAMPO, 2012 Update • 2015: Roanoke Valley Pedestrian Vision Plan • 2016: 2040 Financially Constrained Long Range Transportation Plan • 2016: Roanoke Valley Transit Vision Plan

2.2.3. Growth Of The Greenway Network

The greenway network has grown, not only through construction, but also through expansion in 2007 to include “trail nodes” and expansion in 2016 to include Botetourt County’s resources. (See Section 2.3: Addition of Botetourt County.) Table 2-2 shows this growth of the network by showing how many miles were built at the time each plan was developed. Botetourt County’s trails are included in the 2018 Plan, but not in the 1995 or 2007 Plans. Some trail systems have actually gotten shorter, because of lack of maintenance or inclusion of the mileage in other places. The trails included in the 2018 Plan are described further in Chapter 4.

Table 2-2: Growth of the Greenway Network, Comparative Mileage

	Built Miles Included in Greenway Plans		
Off-road Routes	1995 Plan	2007 Plan	2018 Plan
Appalachian Trail++	37.2	37.2	79.0
Back Creek Greenway	0	0	0.4
Barnhardt Creek Greenway	0	0	0
BioMed Loop (included in other routes in 2018)	Not included	1.5	Removed
Birding and Wildlife Trail Sites (miles not included elsewhere)	Not included	7.50	18.75
Blue Ridge Parkway Trails++	19.5	16	30.5
Carvin Creek Greenway	0	0	0
Carvins Cove Trail Network	Not included	38.6	56.0
Catawba Greenway	Not included	0	0.7
Dry Creek Greenway	0	0	Removed
Dry Hollow Greenway	0	Removed	Not included
Explore Park Trails	0	7.0	14.0
Garden City Greenway (formerly Garnand Branch)	0	0	0.7
Gish Branch Greenway	0	0	0
Glade Creek Greenway	0	0	0.3
Gladetown Trail	0	0.6	0.7
Glenwood Horse Trail		With National Forest Trails	
Green Hill Park Trails	Not included	0.9	2.8
Hanging Rock Battlefield Trail	0	1.7	1.8
Havens Wildlife Management Area Trails+	Not included	20.3	20.3
Horners Branch	0	Removed	Not included
Horse Pen Branch	1	Moved to Carvins Cove Trails	
Jefferson National Forest Trail++	Not included	8.2	139.8
Lick Run Greenway	0	3.0	4.6
Long Ridge Trail	Not included	0	0
Masons Cove Greenway	Not included	0	0
Mason Creek Greenway	0	0	1.0
Mill Mountain Greenway	1.9	3.5	3.3
Mill Mountain Park Trails	2.8	8.2	9.9
Mudlick Creek Greenway (& Garst Mill)	0	0.5	0.5
Murray Run Greenway & Fishburn Park Trails	0	2.8	2.8
Paint Bank Branch	0	Removed	Not included
Perimeter Trail	Not included	Mileage in other routes	
Poor Mountain Preserve Trails +	0	0	3.4
Read Mountain Trails	0	0	4.5
Roanoke River Greenway	0	3.0	13.7
Roanoke River Greenway Extensions	0	0	0
Roanoke River Tributary (Franklin St.)	0	Removed	Not included
Spring Hollow Trails	Not included	0	0
Tinker Creek Greenway	0	1.2	3.3
Wolf Creek Greenway	0	2.2	2.2
Subtotal	62.4	163.9	414.9
On-road Bicycle Connections	1995 Plan	2007 Plan	2018 Plan
Bike Lanes	0	1.1	47.9
US Bike Route 76	9.6	13.7	55.5
Signed Bike Routes	0	9.9	31.9
Subtotal	9.6	24.7	135.3
Total	72.0	188.6	550.2
+State Jurisdiction ++ Federal Jurisdiction			

2.2.4. Status of 2007 Greenway Routes

Table 2-3 summarizes the current status of individual greenway routes which were included in the 2007 Plan. Projects that were included in 1995 but dropped in 2007 are not included. More detail on individual greenways can be found in Chapter 4.

Table 2-3: Status of Greenway Routes in the 2007 Greenway Plan as of 12/31/17								
PROJECT NAME	# in 2007 Plan	Exploration	Planning	Engineering	Funding	Right of Way	Construction	Complete
Appalachian Trail ++	1						✓	1985
Back Creek Greenway	2							
Martins Creek Rd. to Cotton Hill Rd.	2	✓						
Cotton Hill Rd. to Crystal Creek Rd.	2	✓	✓					
Starkey Park to Merriman Park	2	✓	✓	✓	✓	✓	✓	2002
Merriman Park to Blue Ridge Parkway	2	✓	✓					
Crystal Ck Rd to Penn Forest Elem.Sch.	2	✓	✓	✓	✓	✓	✓	2013
Jae Valley Rd. to Roanoke River	2	✓	✓			✓		
Barnhardt Creek Greenway	3	✓						
Biomed Loop	4	✓	✓	✓	✓	✓	Part	
Birding and Wildlife Trail Sites	5	✓	✓	✓	✓	✓	✓	2003
Blue Ridge Parkway Trails ++	6	✓	✓					
Carvin Creek Greenway	7	✓	✓			Some		
Carvins Cove Trail Network	8	✓	✓	✓	✓	✓	✓	Ongoing
Catawba Greenway	9	✓	✓	✓		✓	Part	
Dry Creek Greenway	10	✓						
Explore Park Trails	11	✓	✓	✓	✓	✓	Ongoing	
Garden City Greenway (Garnand Branch)	12							
Blue Ridge Parkway to Yellow Mtn Rd	12	✓						
Yellow Mtn to Ivywood	12	✓	✓	✓	✓	✓	✓	2016
Ivywood to Roanoke R. Greenway	12	✓	✓	✓	✓	✓	2016-18	
Gish Branch Greenway	13	✓						
Glade Creek Greenway	14							
Beyond Vinyard Park	14	✓						
Vinyard Park section	14	✓	✓			✓		
County line to Gus Nicks Blvd	14	✓	✓			Part		
Gus Nicks Blvd to Walnut Ave.	14	✓	✓	✓	✓	✓	2019	
Walnut Ave. to VA 24	14	✓	✓	✓	✓	✓	✓	2017
Gladetown Trail	15	✓	✓	✓	✓	✓	✓	2012
Green Hill Park Trails	16	✓	✓	✓	✓	✓	✓	2009
Hanging Rock Battlefield Trail	17	✓	✓	✓	✓	✓	✓	1999
Mason Creek Bridge	17	✓	✓	✓	✓	✓	✓	2014
Branch Drive to E. Main St.	17	✓	✓	✓	✓		2018-19	
Havens Wildlife Mgt Area Trails +	18	✓	✓	✓	✓	✓	✓	✓
Jefferson National Forest Trails ++	19	✓	✓	✓	✓	✓	✓	✓
Lick Run Greenway	20							
Peters Creek Rd to Countryside	20	✓						
Countryside to Wm. Fleming Schools	20	✓	✓	✓	✓	✓	✓	2014
Wm. Fleming to Interchange at I-581	20	✓	✓					
Valley View bridge	20	✓	✓	✓	✓	✓	✓	1999, 2015
Interchange to Visitors Bureau	20	✓	✓	✓	✓	✓	✓	2002, 2006
Long Ridge Trail	21	✓						
Masons Cove Greenway	22	✓						
Mason Creek Greenway	23	✓	✓		Part		Part	2013
Mill Mountain Greenway	24	✓	✓	✓	✓	✓	✓	2003
Mill Mountain Park Trails	25	✓	✓	✓	✓	✓	✓	2015

Table 2-3: Status of Greenway Routes in the 2007 Greenway Plan as of 12/31/17 (continued)

PROJECT NAME	# in 2007 Plan	Exploration	Planning	Engineering	Funding	Right of Way	Construction	Complete
Mudlick Creek Greenway	26							
Hidden Valley High School-Cresthill Dr.	26	✓	✓					
Cresthill to Garst Mill Park	26	✓	✓	✓	✓	✓	✓	1997
Garst Mill to Roanoke River	26	✓				One tract		
Murray Run Greenway	27							
Ogden Rd. to Colonial Ave.	27	✓	✓					
Colonial to Brambleton Ave.	27	✓	✓	✓	✓	✓	✓	2004
Brambleton to Grandin Rd.	27	✓	✓	✓	✓	✓	✓	2001, 2003
Perimeter Trail	28	✓						
Poor Mountain Preserve Trails +	29	✓	✓	✓	✓	✓	✓	2013
Read Mountain Trails	30	✓	✓	✓	✓	✓	✓	2012
Roanoke River Greenway (See p. 64)	31	✓	✓	✓	✓	✓	Ongoing	1999-2018
Roanoke River Greenway Extensions	32	✓						
Spring Hollow Trails	33	✓						
Tinker Creek Greenway	34							
Carvins Cove to City/Co line	34	✓	✓			Part	Part	2012
City/County line to Wise Ave.	34	✓	✓		✓			
Wise Ave to Roanoke River	34	✓	✓	✓	✓	✓	✓	2003, 2012
Wolf Creek Greenway	35							
Blue Ridge Parkway to Stonebridge Park	35	✓	✓		✓	✓	✓	2007
Stonebridge Park to Hardy Rd.	35	✓	✓	✓	✓	✓	✓	1999, 2001
Hardy Rd to Roanoke River	35	✓						
+State Jurisdiction ++ Federal Jurisdiction								

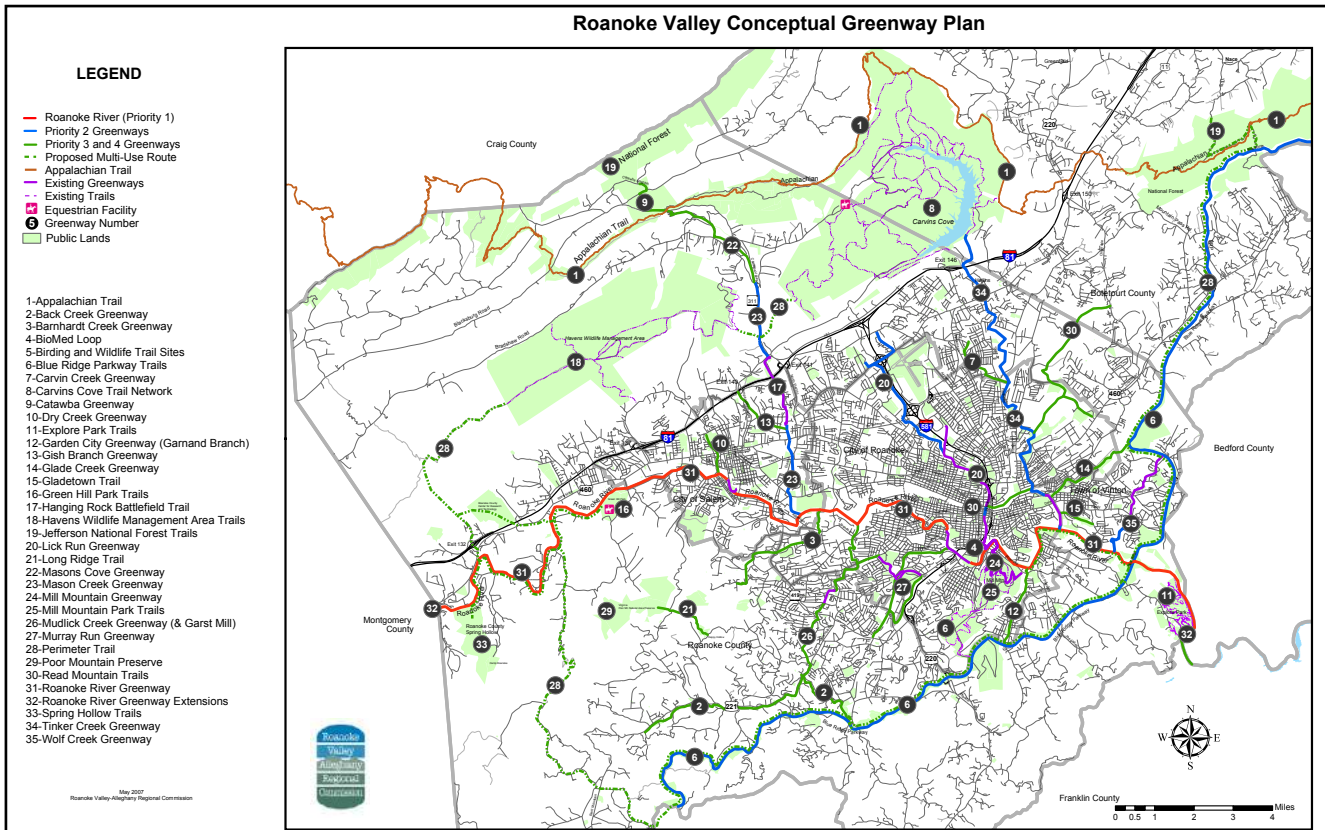


Figure 2-2: 2007 Plan Map of Proposed Greenway Network

2.2.5. On-Road Bicycle Connections

For decades the region has had bicycle plans, developed by the Metropolitan Planning Organization (now the RVTPO), to encourage bicycling as an alternative mode of travel and to facilitate development of greater connectivity between activity centers. These plans have documented bicycling conditions, accommodations, popular routes, safety concerns, and corridors needing improvements. The most recent update to the [Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization](#) (Regional Bicycle Plan) was completed in 2012. In addition, the [Ride Solutions](#) program has played a significant role in encouraging bicycle commuting and developing on-line mapping resources.

2.2.5.1 U.S. Bicycle Route 76

U. S. Bicycle Route 76, established in 1978 as part of the TransAmerica Trail, is a national, signed bike route running through Botetourt and Roanoke Counties. The portion on Blacksburg Road was included in the 1995 Plan, and, with the inclusion of Botetourt County, the entire 55.5 miles within the region is included in this 2018 Plan.

In 2017 the Regional Commission completed a study of the route to assess conditions and develop recommendations for improving the cyclist's experience, showcasing the region's resources, and increasing the economic benefits of this national facility. That [study](#) has specific recommendations to improve safety and wayfinding and encourages development of amenities and facilities for long distance riders. There is also a proposed U. S. Bicycle Route 11, which would follow the Blue Ridge Parkway.

2.2.5.2 Blue Ridge Parkway

The Blue Ridge Parkway, under the jurisdiction of the National Park Service, is located in Botetourt and Roanoke Counties from Milepost 75 to Milepost 136. It is a popular route for recreational and long distance riders but is not signed for bicyclists. The speed limit is 45 mph, and there is limited access and lower traffic volumes than on many other roads. However, there are often conflicts between bicyclists and cars, because of significant commuter traffic and because the alignment and hills make it difficult for cars to pass bicycles. The Parkway does not have paved shoulders, and thus there are many safety issues for bicyclists.

2.2.5.3 Other On-Road Facilities

The 1995 Plan included many proposed on-road routes, which were referenced in the 2007 Plan and included in the Regional Bicycle Plan. The localities have developed these facilities as opportunity has allowed, when roads are rebuilt, restriped, or reconfigured. Table 2-4 (p. 11) lists the roads with striped bike lanes and those that are on signed bicycle routes.

The City of Roanoke has led the way on adding bike lanes through striping space when paving.



Table 2-4: On-Road Bicycle Accommodations Built by 12/31/2017

Locality and Route Name	Miles of Bike Lane	Miles of Signed Bike Route	Locality and Route Name	Miles of Bike Lane	Miles of Signed Bike Route
City of Roanoke			City of Roanoke (cont'd)		
10th St. NW	1.67		Belmont		3.34
13th St.	2.90		Carlton Rd.		0.44
5th St. NW	0.56		Ferdinand Ave.		1.33
Boulevard St.	0.44		Maiden Ln.		2.08
Brambleton Ave.	1.60		Market St.		1.24
Brandon Ave.	4.53	1.61	Old Southwest		1.33
Broadway	0.45		Tinker		2.06
Colonial Ave.	1.81		Wise Ave.		1.69
Edgewood St.	0.20	0.52	City of Salem		
Franklin Rd.	3.66		Braeburn Dr.	1.90	
Gus Nicks Blvd.	1.33		Colorado St.	0.80	
Hershberger Rd.	1.60		Salem Bike Route		9.93
JP Fishburn Parkway	1.60		County of Botetourt		
McClanahan St.	0.46		U. S. Bicycle Route 76		41.80
Melrose Ave.	4.49		County of Roanoke		
Memorial Ave.	1.04		Brambleton Ave.	2.30	
Patterson Ave.	0.23		Mountain View Rd.	2.50	
Peters Creek Rd.	4.44		U. S. Bicycle Route 76		13.70
Peters Creek Extension	4.66	2.08	Town of Vinton		
Shenandoah Ave.	1.62	4.32	Hardy Rd.	1.10	
Totals				47.89	87.47

2.2.6. Development of Blueways as Water Trails

2.2.6.1 Roanoke River Blueway

In response to public input, the 2007 Plan had considerable discussion of development of a Roanoke River Blueway. Such a water trail would complement the greenway and help protect the scenic quality and health of the river, which directly affects users' experience on the greenway. The Greenway Commission had been providing annual canoe trips for elected officials and staff for many years, and numerous boat launches were being constructed in conjunction with Roanoke River Greenway. Some advocates assumed that the Greenway Commission was the logical group to organize the blueway development, but the four localities declined to expand the mission and staffing of the Commission at that time.

In 2013 the Regional Commission received several requests from localities to help organize development of the Roanoke River Blueway. Thus, in 2014 the Regional Commission organized a steering committee of users, locality staff, outfitters and other community partners to gather the information that would be needed to develop a blueway website. Many of the boat launches, water gauges, canoe racks, and other amenities had already been installed, but the committee identified additional needs to provide continuity for a water trail. Staff looked at efforts in neighboring jurisdictions and across the state and developed the [Roanoke River Blueway website](#). Partners on the steering committee stepped up to raise funding for installation of two new access points. The Greenway Commission supported these efforts by serving on the steering committee, providing amenities, assisting with funding, and providing tours, pictures, and other information.

The Roanoke River Blueway has been designated a Virginia Treasure, received the Governor's Award for Environmental Excellence, and received a Virginia Tourism Corporation Grant. Promoting the Roanoke River Blueway helps to market the Roanoke River Greenway as the flagship greenway for the broader network. The Roanoke River Blueway, 45 miles long with 17 access points, remains a key amenity for outdoor recreation in the Roanoke Valley and is important to the greenway network.

2.2.6.2 Upper James River Water Trail

In 2015 Botetourt County developed the Upper James River Water Trail from Iron Gate to Alpine, a distance of 46 miles. This blueway has eight sections, with Class I and II rapids and excellent fishing. Several outfitters provide rental tubes, kayaks, fishing tours, and shuttles. In 2017 two segments of the river, totaling 30 miles, were designated part of the Virginia Scenic Rivers system and added to the 16-mile segment designated in 1985 to provide Scenic River status for the entire river in Botetourt County. The trail's [website](#) provides detailed information about each section and contacts for renting equipment.



The Upper James River Water Trail offers tubing, canoeing, kayaking, and fishing. Outfitters provide rental equipment and guide services.

2.2.7. Greenway Funding

2.2.7.1 Construction Funding

Greenway construction and development has been funded through a myriad of federal, state, local, and private sources. Table 2-5 (p. 13) documents the grants and donations received since the 2007 Plan. Most grants require some match. These charts do not document all the local government spending to match grants and employ staff for managing projects. The 2007 Plan recommended reducing reliance on federal and state grants, but, in fact, the region is very dependent on these sources.

2.2.7.2 Greenway Commission Funding

As outlined in the Intergovernmental Agreement (Appendix A), the Greenway Commission budget is funded on a per capita basis by each of the participating localities. The budget has increased over twenty years as the cost of salary and benefits for the Greenway Coordinator has increased, but the Greenway Commission is still staffed by only one employee. The Commission has an agreement with Roanoke County to provide office space and equipment and to serve as fiscal agent.

2.2.7.3 Funding through Pathfinders for Greenways

Pathfinders relies on private donations and grants to cover its expenses. With those funds Pathfinders has been able to purchase a truck, trailer, two mini-skid steers, hand tools, and trail construction materials. Pathfinders does not have staff, but is assisted by the Greenway Coordinator and has a part-time contract employee to do clerical work and bookkeeping.

In 2007 a group of young professionals called Valley Forward started a fundraising race, Gallop for the Greenways, to provide monies to speed up greenway construction. The race is an annual event and the proceeds have paid for engineering, survey, construction, and land purchase on different greenway and trail sections. Pathfinders has also participated in other events for charitable organizations, such as First Fridays and the Deschutes Street Pub, won awards such as Cox Heroes, and received corporate donations, such as those from Bridge the Gap donors and from Novozymes, which provided \$50,000 annually for six years.



Pathfinders has received grants and donations that have allowed purchase of a mini-skid steer to assist with trail building.

Table 2-5: Grants and Allocations for Roanoke Valley Greenways					
Year Awarded	Federal	State	Local	Private	Total
2007	\$ 1,005,000	\$ 173,300	\$ 773,000	\$ 69,631	\$ 2,020,931
2008	\$ 279,000	\$ 0	\$ 4,344	\$ 281,221	\$ 564,565
2009	\$ 2,565,000	\$ 10,000	\$ 485,000	\$ 379,300	\$ 3,439,300
2010	\$ 251,503	\$ 1,300,000	\$ 0	\$ 75,162	\$ 1,626,665
2011	\$ 925,000	\$ 33,825	\$ 200,000	\$ 159,550	\$ 1,318,375
2012	\$ 652,000	\$ 1,374,000	\$ 1,268	\$ 639,904	\$ 2,667,172
2013	\$ 13,140,443	\$ 81,000	\$ 411,000	\$ 80,200	\$ 13,712,643
2014	\$ 657,392	\$ 60,000	\$ 50,500	\$ 49,000	\$ 816,892
2015	\$ 1,790,784	\$ 0	\$ 200,000	\$ 30,250	\$ 2,021,034
2016	\$ 8,061,329	\$ 1,643,041	\$ 670,000	\$ 103,760	\$ 10,478,130
2017	\$ 2,610,000	\$ 3,195,175	\$ 0	\$ 17,805	\$ 5,822,980
Total	\$ 31,937,451	\$ 7,870,341	\$ 2,795,112	\$ 1,885,783	\$ 44,488,687

2.3. ADDITION OF BOTETOURT COUNTY

In 2015 Botetourt County asked about the possibility of joining the Greenway Commission. After informal discussions between County and Greenway Commission staff, the Botetourt County Board of Supervisors took action to request to join the Greenway Commission. While the addition of new members was specifically allowed in the Intergovernmental Agreement, no process had previously been specified. Thus, the Greenway Commission reviewed the request at length, considering the pros and cons, the impact on staff and funding, and the expectations. In April 2016 it recommended to the localities that Botetourt County be admitted as a member and that the Intergovernmental Agreement be revised to reflect the change. Subsequently, each of the four localities took action approving a resolution to add Botetourt as a member and to revise the Intergovernmental Agreement. On June 29, 2016 these documents were signed by the administrators of each jurisdiction at the Annual Meeting of the Greenway Commission, held at Greenfield Education and Training Center.

Botetourt County is 548 square miles in size and brings many resources and opportunities to the greenway program. In the eastern part of the County are the Blue Ridge Parkway and the Glenwood District of the Jefferson National Forest. In the northern part of the County are the James River and Craig Creek. In the western part are the Patterson Mountain and North Mountain Trails of the Eastern Divide District of the National Forest. In the southern part are Carvins Cove, Tinker Creek, and Read Mountain. U.S. Bicycle Route 76 runs through the County for 41.8 miles from Buchanan through Troutville to Catawba Road, and the Appalachian Trail crosses the County from Carvins Cove through Daleville to the Blue Ridge Parkway. Thus, the County is well connected with recreational resources, has ample space for development of support facilities like camping, and could be a hub for outdoor recreation.



On June 29, 2016 Botetourt County joined the Greenway Commission with the signing of documents at Greenfield Education and Training Center.

Table 2-6 (p. 14) is a list of the existing trails in Botetourt County which are being incorporated into the 2018 Plan, thus enlarging the total mileage in the Roanoke Valley Greenway network.

**Table 2-6: Existing Trails Incorporated into the Greenway Network
with the Addition of Botetourt County**

Name	Trail or Section	Management Partners (Acronyms Listed p. vi)	Surface	Existing Miles Added
Andy Layne Trail	Rt 779 to Appalachian Trail	Roanoke Cement, RATC	C	3.0
Appalachian Trail	Campbell Shelter to VA 652	NPS-APPA, RATC, ATC	C	17.5
Appalachian Trail	VA 652 to Thunder Hill Shelter	USFS, RATC & NBATC	C	40.1
Birding and Wildlife Trail Sites	Alleghany Highlands Loop: Callie Furnace	USFS	B	0.3
Birding and Wildlife Trail Sites	Iron Ore Loop: Craig Creek Recreation Area - mileage counted under National Forest	USFS	B	0.0
Birding and Wildlife Trail Sites	Peaks of Otter Loop: Harveys Knob Overlook	Blue Ridge Parkway	A	0.0
Birding and Wildlife Trail Sites	Peaks of Otter Loop: Warbler Road	USFS	B	13.0
Birding and Wildlife Trail Sites	Roanoke Valley Loop	WVWA; Roanoke Parks & Rec	A	0.1
Birding and Wildlife Trail Sites	Roanoke Valley Loop: Woodpecker Ridge Nature Center	Private	B-C	0.8
Blue Ridge Park	Blue Ridge Park Trail	Botetourt Parks and Rec	A-B-C	0.65
Boxley Park	Blue Ridge Springs Trail	Botetourt Parks and Rec	C	0.6
Carvins Cove Trail Network	Multiple Trails, Listed in Chapter 4; 45 miles, counted previously	Roanoke Parks & Rec	B-C	0
Greenfield Trail System	Cherry Blossom Trail	Botetourt Parks and Rec	B	0.88
Greenfield Trail System	Boyer Holiday Trail	Botetourt Parks and Rec	C - grass	0.86
Greenfield Trail System	Colonel William Preston Trail	Botetourt Parks and Rec	C - grass	2.4
Greenfield Trail System	Greenfield Recreation Trail	Botetourt Parks and Rec	C - grass	3.1
Blue Ridge Parkway	Harkening Hill Trail	BRP, USFS	C	3.3
Blue Ridge Parkway	Fallingwater Trail	BRP, USFS	A & C	1.6
Blue Ridge Parkway	Flat Top Mountain Trail	BRP	C	4.4
Jefferson National Forest	Multiple Trails, listed in Chapter 4	USFS-Eastern Divide	C	57.4
Jefferson National Forest	Multiple Trails, listed in Chapter 4	USFS-Glenwood/ Pedlar	C	76.3
George Washington National Forest	Multiple Trails, listed in Chapter 4	USFS-James River	C	6.1
Perimeter Trail	Curry Gap to Nace	On roads - USFS, VDOT	A-B	6.2
Tinker Creek Greenway	Botetourt Co. Line to Carvins Cove Boat Landing	Roanoke County Parks, Rec. and Tourism; Roanoke Parks and Rec.	C	0
Upper James River Water Trail	Iron Gate to Craig Creek	DGIF	Water	14.0
Upper James River Water Trail	Craig Creek to Springwood	DGIF	Water	16.5
Upper James River Water Trail	Springwood to Buchanan	DGIF, VDOT	Water	5.0
Upper James River Water Trail	Buchanan to Arcadia	DGIF	Water	6.0
Upper James River Water Trail	Arcadia to Alpine	VDOT, DGIF, USFS	Water	4.5
U.S. Bicycle Route 76	Rockbridge County to Roanoke County Line	VDOT	A	41.8
Existing Mileage Added to Roanoke Valley Greenway Network				326.4
Surfaces: A = Paved, asphalt or concrete; B = Crushed aggregate stone, wood chips; C = Natural surface, wood chips, stone, or grass				

2.4. REVIEW OF GOALS, OBJECTIVES, AND STRATEGIES

2.4.1. Review of Goals, Objectives, and Strategies from 2007 Plan

In the 2007 Plan issues raised by the public led to development of six new goals, in addition to those in the 1995 Plan. Those six goals were regional goals for all the partners involved in the greenway program to consider during development of the greenway network. After completion of the 2007 Plan, the four localities and the Greenway Commission addressed many of these issues by revising the Intergovernmental Agreement, expanding the Greenway Commission membership to include staff, revising the bylaws, and focusing on Roanoke River Greenway. In 2014, in line with the Commission's responsibility to review the Plan periodically, the Executive Committee updated the implementation strategies and this 2018 Plan includes further updates in Chapter 6.

Table 2-7: Progress on 2007 Goals, Objectives, and Strategies

Goal	Objectives	Strategies	Progress by 2018
1. Greenway Construction Complete a connected greenway network of trails to provide the multiple benefits of a greenway system, with focus on finishing Roanoke River Greenway.	Prioritize greenway construction and focus resources on completion of the greenway network's arterial routes.	Focus on finishing the Roanoke River Greenway (Priority #1) in the next five years.	High
	Provide a connected greenway system by focusing on long stretches of off-road trails and tying them together with on-road bicycle and pedestrian facilities.	Focus on finishing Priority #2 routes in five to ten years.	Moderate
	Improve the process for getting greenways built.	Incorporate on-road greenways and connections into the regional Bikeway Plans.	High
	Provide identification, regulatory, and informational signs on each greenway to facilitate use and management.	Develop master plans for Priority 1 and 2 greenways with time lines for land acquisition and construction.	Moderate
		Identify a project team for each project, with assigned roles and responsibilities.	Moderate
		Within each locality coordinate project management, land acquisition, and greenway construction with all departments that might help or be impacted.	Moderate
		Develop greenway sign guidelines to encourage signage consistency while retaining flexibility to meet locality requirements.	Moderate
		Continue to use Pathfinders for Greenways to build Class C trails.	High
2. Funding Increase greenway funding to meet the goals for trail construction and completion of the greenway network.	Develop an aggressive, regional, multi-year funding plan that identifies fiscal goals and sources of continuous funding for greenway construction.	Continue to seek federal and state grants but reduce reliance on these sources.	High; low.
	Develop new sources of revenue for greenway construction.	Develop an implementation plan for completion of the Roanoke River Greenway and utilize it in soliciting corporate donations and investments.	High
		Target multiple funding sources and explore innovative funding possibilities such as bonds, stormwater fees, private grants, and partnerships.	High
		Expand fund raising activities such as charitable donations, festivals, races, and other fundraising events.	High
		Include capital money for greenways in each locality's Capital Improvement Program.	High
		Develop a donation program to allow private donation of greenway amenities such as water fountains, bike racks and benches.	High

Table 2-7: Progress on 2007 Goals, Objectives, and Strategies (continued)

Goal	Objectives	Strategies	Progress by 2018
2. Funding (cont'd)		Develop a method for receiving and efficiently utilizing corporate donations.	High
		Develop a list of specific trail sections or components that could be funded by corporate or other private monies.	Moderate
3. Land Acquisition Develop a land acquisition program that provides rights-of-way needed for greenway construction.	Develop an aggressive, land acquisition program that identifies properties needed for each project and time lines for acquisition that dovetail with construction schedules.	Form land acquisition teams, define roles and responsibilities of team members, and train team members to assist with acquisition of greenway easements.	Low
	Work cooperatively among local jurisdictions to coordinate land acquisition across jurisdictional boundaries.	Identify existing public properties and easements being acquired for other purposes to determine if greenway easements can be incorporated.	Moderate - High
		Develop a mechanism to be involved in the utility easement process so that greenway easements can be considered where appropriate.	Moderate
		Work with planning staff to refine local zoning ordinances to encourage and protect greenway corridors.	Moderate - High
		Work with developers to include greenway easements, and greenway construction, within new developments that are located along identified greenway corridors.	Moderate - High
		Utilize corporations and chambers of commerce to support development of trails within industrial/ business complexes.	Moderate
4. Community Outreach and Education Develop a community outreach and education program that provides information on greenway opportunities and benefits.	Develop a dynamic outreach program that communicates the economic, health, environmental, and quality of life benefits of the greenway system.	Expand the Greenway Commission and localities' web sites to provide current information on projects and events, trail locations and maps, and information for tourists.	Moderate - High
	Increase awareness of greenway implementation efforts through a comprehensive marketing strategy.	Provide greenway marketing information to the economic development departments of the local jurisdictions.	Moderate
	Expand environmental educational programs and service opportunities through cooperation with local schools and an expanded volunteer program.	Develop an outreach program that goes beyond the Roanoke Valley to be used to attract new businesses and enhance the valley's value as a tourism destination.	Moderate - High
		Develop a speaker's bureau to market greenways to Valley residents through club and organization meetings, civic associations, and business groups.	Low
		Standardize use of the greenway logo on trail signs, maps, and marketing materials.	High
		Publicize greenway projects, trail locations, and benefits via the press, newsletters, signage, and web site.	High
		Expand the volunteer and volunteer recognition program.	Moderate
		Develop a "Youth of the Greenways" advocacy component to engage young audiences to volunteer and contribute to future greenway development.	Low

Table 2-7: Progress on 2007 Goals, Objectives, and Strategies (continued)

Goal	Objectives	Strategies	Progress by 2018
5. Organizational Structure Refine the organizational structure to effectively and efficiently implement the Update to the Conceptual Greenway Plan and manage the growing greenway system.	Clarify the roles and responsibilities for implementing the Greenway Plan.	Clarify the roles and responsibilities of each locality, the Greenway Commission and volunteers in implementation of the Greenway Plan and specific projects.	High
	Improve the Greenway Commission's function to assist the localities effectively.	Update and renew the Intergovernmental Agreement.	High
		Identify staffing needs of the localities and Greenway Commission to meet the responsibilities of each in implementing the Greenway Plan and managing the greenway network.	Moderate
		Develop a Memorandum of Understanding with Western Virginia Water Authority and other utility companies to facilitate right-of-way planning and management of greenways within utility corridors.	Low
6. Greenway Management Manage the greenway network to meet user needs, provide a range of experiences in a secure environment, and protect the natural resources.	Utilize best management practices in design and maintenance of greenways.	Work with legal departments to develop ordinances needed to effectively manage greenways and to encourage consistency across jurisdictions when feasible.	Moderate
	Improve regional coordination among greenway managers to address management issues and develop consistent responses.	Develop methods for users to report problems or conditions on greenways.	Moderate
	Provide departments maintaining greenways with sufficient budget and resources to manage the growing greenway network.	Involve law enforcement and emergency management personnel prior to the opening of new greenways.	Moderate - High
		Schedule regional meetings among staff managing greenways to share methods and experiences.	Low
		Identify greenways in locality mapping and geographic information systems.	High
		Use national and state guidelines like CPTED (Crime Prevention through Environmental Design) and AASHTO (American Association of State Highway and Transportation Officials) to design secure and safe trails.	High
		Expand adopt-a-greenway programs and other methods for volunteer assistance to reduce maintenance costs.	High

2.4.2. Review of Goals/Objectives from 1995 Plan

The 2007 Plan incorporated the Goals and Objectives from the 1995 Plan. The 1995 Plan presents a holistic vision for a Valley-wide greenway system. That plan identifies many greenway corridors to establish an interconnected trail system. However, the greenway system is more than just an alternative transportation and recreation facility. The 1995 Plan addressed not just the physical infrastructure but the following as well:

- Recreation opportunities
- Wellness of the Valley's citizens (health and fitness needs/active lifestyle)
- Preservation/conservation of natural resources
- Educational opportunities
- Economic development potential

These ideas are represented as seven goals with 45 related objectives and strategies. The Steering Committee for this update reviewed these strategies and subjectively re-evaluated the success in achieving each. The table below lists the goals and objectives/strategies and ranks the degree of progress on each as: None, Low, Moderate, or High. These goals, objectives and strategies represent an ambitious concept that could create a model greenway system.

Table 2-8: Progress on 1995 Goals, Objectives, and Strategies			
Goals 1995 Plan	Objectives/Strategies	Progress by 2007	Progress by 2018
1. Transportation Provide corridors that bicyclists, pedestrians, and others can use to get from one place to another as an alternative to motor vehicle use.	Provide greenways that connect schools, libraries, shopping centers, work sites, parks and other places in the community.	Moderate	Moderate – High
	Provide connections between mass transit sites and make arrangements for safe storage of greenway system users' bicycles (or other belongings) while they are using the transit system.	Low	Low
	Identify and make plans for existing roads that should be widened or otherwise modified to accommodate bicycles and pedestrians.	Moderate	Moderate
	Initiate Valley-wide design and installation standards to incorporate bicycle and pedestrian facilities on new roads and road improvement plans.	Low	Moderate
	Initiate design standards that are sensitive to the disabled in order to ensure opportunities for a variety of users.	High	High
2. Safety Design a greenway system that maximizes safety of greenway system users and nearby property owners and neighborhoods.	Establish integrated law enforcement and emergency response programs that service the needs of greenway system users and landowners.	Low	Moderate – High
	Incorporate into the greenway management system appropriate safety and security strategies.	Moderate	Moderate
	Design the greenway system to accommodate different activities (such as horseback riding and bicycling) with a minimum of user-conflict.	Moderate	Moderate
	Improve bicycle safety by implementing safety education programs in local schools and the community.	None	Low
3. Recreation/ Fitness/Health Design the greenway system as both a recreational resource and as public access to other recreational resources, offering a full spectrum of recreation and exercise opportunities.	Provide a greenway system that accommodates a variety of recreational activities.	High	High
	Encourage businesses to establish and integrate use of greenways into corporate health and wellness programs.	Low	Moderate – High
	Promote programs and facilities that provide opportunities for individual health related activities.	Moderate	High
	Make each greenway a stand-alone destination (as well as a link to other resources) by providing amenities such as benches, picnic areas, and workout stations.	Moderate	Moderate - High
4. Education Educate the public about the need for and benefits of greenways, and educate the greenway system user about the area's natural and cultural history.	Educate the community on the importance of environmental conservation and restoration ecology.	Moderate	Moderate
	Develop a program of continuing education for elected officials, agency staff, developers and engineers to define the latest technologies, design methodologies and land use practices for managing the environment.	Low	Low
	Increase public awareness of the importance of the Roanoke River and its watershed lands to the future of the Roanoke Valley.	Moderate	Moderate - High
	Educate the public on the benefits and uses of greenways. Develop an out-reach education program to attract new users.	Moderate	Moderate – High
	Educate property owners of the economic advantages of having a greenway on or near their property.	Low	Moderate
	Educate greenway system users on proper greenway system etiquette that respects the rights of adjacent property owners and other greenway system users.	Moderate	Moderate
	Use the greenway system as an outdoor Environmental Learning Lab for school and community use.	Moderate	Moderate
	Provide historic information using trail markers along historically significant trail corridors.	Low	Moderate
	Provide maps and literature on trail length, difficulty, restrictions and amenities.	Moderate	Moderate

Table 2-8: Progress on 1995 Goals, Objectives, and Strategies (continued)

Goals 1995 Plan	Objectives/Strategies	Progress by 2007	Progress by 2018
5. Economic Development Address both the appropriate costs of implementing the greenway system (including land acquisition and capital improvements) and the benefits that will result from its creation.	Utilize the greenway system as an economic development marketing tool for the Roanoke Valley.	Low	High
	Use greenway linkages to complement and enhance tourist attractions.	Moderate	Moderate
	Document economic benefits of greenways, such as increasing the value of land that lies contiguous to a greenway and the benefits to a new business locating in the Roanoke Valley.	Low	Moderate
	Establish a mechanism to ensure continuing maintenance of the greenways, such as using volunteers to keep maintenance costs low and starting Adopt-A-Greenway program.	Moderate	Moderate
	Utilize tax incentives, easements and other approaches to encourage individuals and businesses to donate land, funding or materials.	Moderate	Moderate
	Establish procedures for subdivision developers to provide donations of land or rights-of-way for greenway systems.	Low	Moderate
	Utilize existing rights-of-way, utility corridors, and other features to lower installation costs.	Low	Moderate
	Explore and obtain multiple sources of funding for greenways.	Moderate	High
6. Environmental Design a plan that preserves, promotes and enhances the Valley's environmental assets.	Encourage localities to include greenways as a flood reduction strategy in the Roanoke Regional Stormwater Management Plan.	Moderate	Moderate
	Develop a valley-wide strategy for protecting natural stream corridors and other open space, plus a mitigation program for addressing resources that have been adversely altered by land development.	None	Moderate
	Promote greenways as an alternative transportation mode that can help reduce air pollution.	Moderate	High
	Utilize areas adjacent to greenways as natural areas that protect, maintain, or restore natural vegetation and aquatic and wildlife habitats.	Moderate	High
	Design greenways to reduce non-point source pollution in stormwater runoff.	Moderate	Moderate - High
	Utilize greenways as buffer zones between developed area and open spaces.	Moderate	Moderate
7. Organizational and Operational Implement the Roanoke Valley Conceptual Greenway Plan on a regional level and proceed with future greenway system planning and implementation.	Obtain local government and citizen support for the Roanoke Valley Conceptual Greenway Plan.	High	High
	Respond to citizen concerns such as safety issues and user conflicts in the establishment and operation of the greenway system.	Moderate	Moderate
	Establish standards for the design, operation, and maintenance of the greenway system.	Low	Moderate - High
	Ensure that an organizational structure exists for regional planning, implementation, and operation of greenways in the Roanoke Valley.	High	High
	Establish a non-profit organization to launch a public awareness campaign, volunteer programs and fundraising efforts.	High	High
	Select a pilot greenway project and implement it.	High	High
	Pursue implementation of other elements of the Roanoke Valley Conceptual Greenway Plan.	Moderate	High

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3. COMMUNITY INPUT AND ISSUES

3.1. GREENWAY PLAN UPDATE PROCESS

The Greenway Commission and Regional Commission selected a variety of methods for involving citizens, locality staff, and officials in the update to the Greenway Plan. These methods included convening a steering committee (listed on the inside cover of this Plan), holding seven public input meetings, conducting an on-line survey, and meeting frequently with locality staff, locality greenway teams and the Greenway Commission.

3.1.1. Public Input Meetings

Six community meetings were held in 2017 to gather public input on the future of the greenway system. Total attendance was 208 people. These meetings took place on the following dates at locations noted:

- March 21, 2017 in Botetourt County at the Greenfield Education and Training Center
- March 27, 2017 in Roanoke County at Mountain View Elementary School
- March 30, 2017 in the City of Roanoke at Fishburn Elementary School
- April 3, 2017 in Roanoke County at South County Library
- April 6, 2017 in Roanoke County at Glenvar Middle School
- April 10, 2017 in the Town of Vinton at the Vinton War Memorial

Each meeting began with a presentation on the history and status of the greenway program. Attendees divided into groups to rotate through stations focused on specific topics. Within each station, the facilitator led the group through questions, recording answers on flip charts and allowing personal responses on comment sheets. The topics were:

- Station 1 - Regional Vision
- Station 2 - Neighborhood Vision
- Station 3 - Tinker Creek Greenway (only at Greenfield, Mountain View, and Vinton meetings)
- Station 4 - Operations and Management

Input from these stations is summarized in Section 3.2. Complete flip chart notes from these meetings and all comment sheets are recorded in Appendix C.

3.1.2. On-line Survey

An on-line survey was available from February 27th to April 17th of 2017. This survey contained 27 questions on a variety of topics, from personal use patterns to regional connectivity goals. The survey received 542 responses. The questions and a summary of responses for each question are included in Appendix B.

3.1.3. Meetings with Staff and Officials

Staff from multiple departments and agencies were consulted via transportation meetings, management meetings, Greenway Commission meetings, locality greenway team meetings, and individual conversations. This feedback provided data for the Plan, as well as perspective on management issues.

3.1.4. Public Review of Draft Plan

A draft greenway plan was presented to the public on April 19, 2018 at the Berglund Center. At this open house meeting, organized again at four stations, staff discussed the plan and answered questions. Comments and reactions from the 108 attendees were recorded on flip charts, as well as individual comment sheets. These comments, as well as on-line responses and email input



Citizens provide public input on the regional vision at the Greenfield meeting.

received by May 4, were incorporated into revisions to this 2018 Plan and are shown in Appendix D. The 2018 Plan was approved by the Greenway Commission on June 27, 2018 and was forwarded to the five localities for review and action.

3.2. PUBLIC INPUT AND DISCUSSION

The structure of the community meetings with four stations framed the discussion at the meetings and organized the public input. This input and the Greenway Commission response to it is summarized below.

3.2.1. Regional Vision

The 2007 Plan prioritized individual greenways into four categories and focused work on Roanoke River Greenway as Priority #1. Many miles of greenways and trails in all priority levels have been built since that plan. In order to capture public satisfaction with the vision of the 2007 Plan, people were asked to reassess the network, verbalize their vision, and propose changes if needed.

At the Regional Vision stations, attendees were asked to use stars and dots to mark on a map what they thought were key destinations and priority greenway routes. The cumulative results of this activity are shown in Figure 3-1: Destinations and Priorities Identified by the Public (p.23). The destinations with the most votes were Carvins Cove, Explore Park, and Smith Mountain Lake (which is outside the Greenway Commission service area). Other destinations were widely spread across the region and seem to reflect the public's desire to use greenways for transportation.

Connectivity was a recurring theme as part of the regional vision. People want greenways, particularly Roanoke River Greenway, to be completed in order to provide a continuous route. Where a greenway is not completed, they want an on-road accommodation to reach the next section safely. They also want to be able to access the greenways by foot or bicycle, rather than having to drive to trailheads. Additional themes from public responses include the importance of greenways for transportation, connections to work and businesses, tourism, and access to nature. Attendees at Greenfield and Mountain View meetings particularly recognized the challenge of strategically envisioning Botetourt's new system and connections, but also preferred using public land or on-road routes, as opposed to private lands, for development of routes.

Completion of the greenway network adopted in 2007 was a key priority identified in all community meetings. In particular, respondents want to finish the backbone of the greenway network, Roanoke River Greenway, and the north-south connections to Carvins Cove and the Blue Ridge Parkway. Responses from both the public input meetings and the survey identified Tinker Creek Greenway as the next regional priority. Tinker Creek Greenway is the route which could most easily extend from the Roanoke Valley into Botetourt County and, as a north-south corridor, it extends through four of the five member localities, just as Roanoke River Greenway does from west to east. The vision of having a greenway network that provides a trunkline route from west to east and arterials north to south is adopted in this 2018 Plan, as articulated in Section 1.4.

3.2.2. Neighborhood Vision

At each community meeting and during the survey process citizens responded with their own neighborhood in mind. Some citizens look to greenways to protect their neighborhood from development, a concept voiced by many at the Fishburn Elementary School meeting where residents were concerned about the impact of development of the Shenandoah Life property on Murray Run Greenway and on their own residences. Others are most concerned about reaching the greenways safely by foot or bicycle; 41% of respondents to the survey said they could not. Neighborhood destinations include schools, residential neighborhoods, parks, libraries and local stores. In neighborhoods that are densely developed, it is not possible to put off-road paths to every destination. Connectivity recommendations such as sidewalks and on-road bicycle accommodations were proposed as an alternative solution; these are further discussed in Chapter 5: Regional Transportation Connections. These recommendations could improve the utility of the greenway network as a web of transportation corridors connecting communities across the Roanoke Valley, as well as improve access to recreational opportunities such as mountain bike trails, hiking trails, and regional blueways.

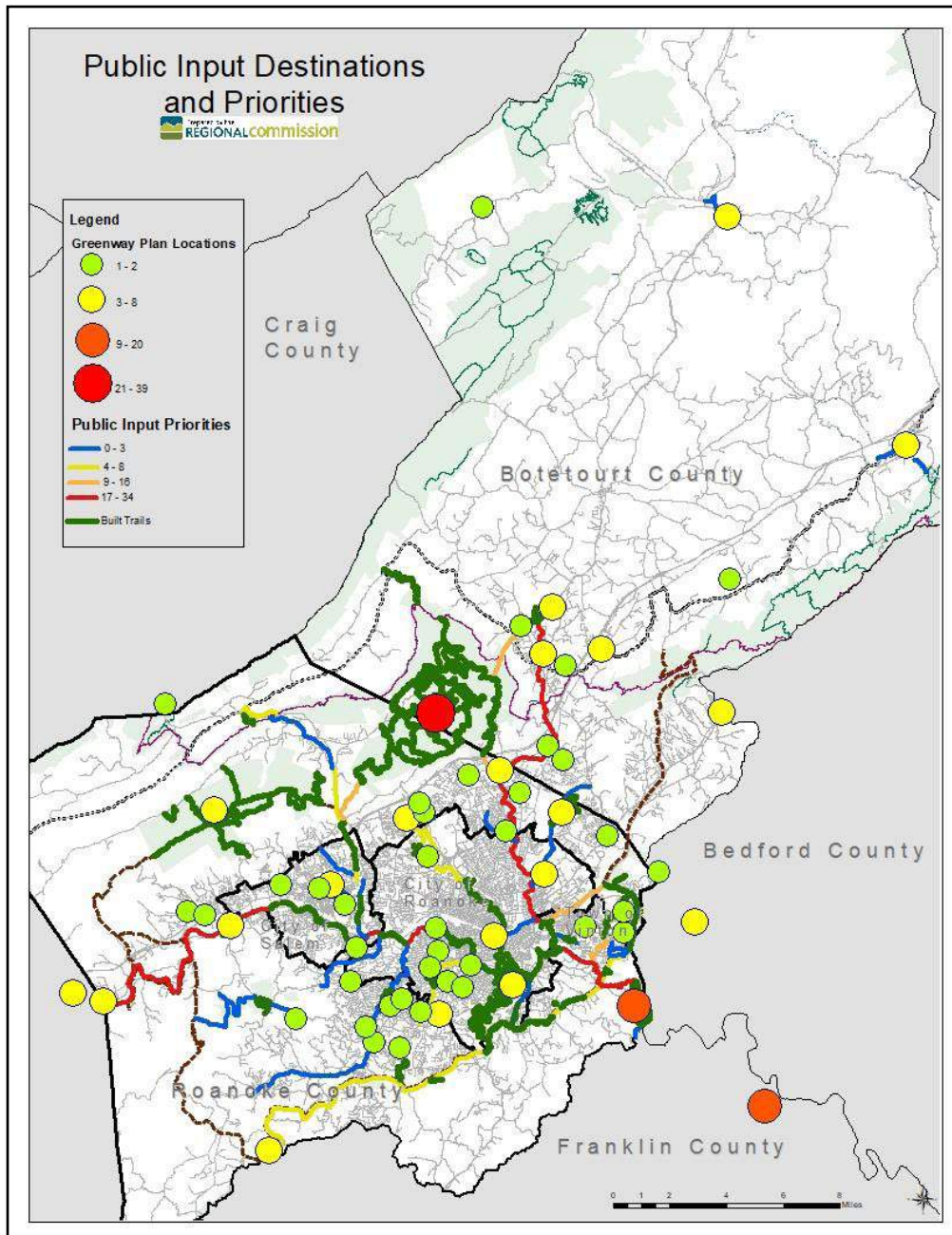


Figure 3-1: Destinations and Priorities Identified by the Public

3.2.3. Tinker Creek Greenway

Studies of the Tinker Creek corridor began in FY 16, separately from the update to the Greenway Plan. The Tinker Creek Greenway Connectivity Study was supported by the Rivers, Trails, and Conservation Assistance (RTCA) Program of the National Park Service. Ursula Lemanski, RTCA Virginia Projects Manager, was an integral part of coordinating a Tinker Creek Greenway Steering Committee and writing the Conceptual Plan.

As these two planning efforts approached the point where public input was needed, staff realized that it would be more efficient to seek that input simultaneously with the Greenway Plan. Thus, at the community meetings near Tinker Creek— Greenfield, Mountain View and Vinton War Memorial – there was a Tinker Creek Greenway Station to obtain feedback on routing options. While there were many neighbors who did not want the greenway on their property, Tinker

Creek Greenway was a very important piece of the network for many people and was strongly supported as the most logical route to Botetourt County and as the next priority. The Tinker Creek Greenway Conceptual Plan is included in this document as Appendix E. It documents the planning process, alternatives, and evaluation of the location options.

3.2.4. Operations and Management

The Operations and Management station was part of all six community meetings, and issues with maintenance and amenities were the focus of five survey questions. In addition, staff had a focus group meeting with maintenance personnel. Generally, comments ran along the broad topics of user conflicts, amenity improvements, damage to facilities, wayfinding, and funding. These issues are discussed further in Section 3.3.

3.3. KEY ISSUES AND RECOMMENDATIONS

The 2007 Plan addressed 14 issues and made recommendations for improvements. Many of those recommendations have been implemented, but the issues persist and require on-going attention. This 2018 Plan addresses issues most frequently mentioned, but the discussion in the 2007 Plan is still valid.

3.3.1. Priorities

Regional priorities help leverage resources and funding to complete routes that connect all localities. Since 2007 Roanoke River Greenway has been the flagship greenway - the longest, most popular and most used greenway in the Roanoke Valley. Citizen response demonstrates a firm commitment to completing this greenway and to ensuring it is maintained as the heart of the regional greenway network. Current timelines show Roanoke River Greenway could be completed from Green Hill Park to Explore Park by 2023. There is strong community support for Tinker Creek Greenway to become the next regional priority greenway. This north to south route will connect Botetourt County, Roanoke County, Roanoke City, and the Town of Vinton.

This 2018 Plan recognizes that there are many projects underway, based on the resources and opportunities for development. On any given greenway corridor, which can be many miles long, the priority can vary depending on the proximity to the urbanized area and locality resources. In Chapter 4 the greenway routes have been sorted into five categories, reflecting their status and progress.

3.3.2. Connectivity

The theme of connectivity had several components: one was finishing specific greenways so that they provide continuous routes, another was connecting communities by providing facilities between greenways for safe bicycle and pedestrian travel and between neighborhoods and the greenways, and a third was connecting the region to other regions. The progress on specific greenways is detailed in Chapter 4, with additions to some greenways to provide connections to other routes. Chapter 5 was developed to address the issue of connectivity between greenways, neighborhoods, and communities via sidewalks, bike lanes, and other on-road accommodations.

3.3.3. Signage, Wayfinding, and Web Information

The theme of signage and information was heard frequently in 2007. Since then, the localities, Greenway Commission, and partners such as Roanoke Kiwanis Club have made significant efforts to install kiosks with maps and rules, identification signs, entrance signs with addresses, rules signs, mile markers, etiquette reminders, on-road directional signs, and interpretive signs. Still, the public regularly mentioned signage on the greenway, the need for improvements to both wayfinding and educational signage, and the need to simplify rules and improve etiquette.

The need for wayfinding signage varies depending on the complexity of intersections and was mentioned often for Lick Run Greenway and the on-road section of Roanoke River Greenway around Golden Park, connecting to Tinker Creek Greenway. Signage regarding etiquette and mile markers are lacking on some greenways, few bridges over the greenways are labeled, and seldom is there information on how to connect to roads, parking, bicycle infrastructure, or other greenway segments. Consistency across jurisdictions was a repeated concern.

While signage on the greenways has improved, the general public has become more and more dependent on phones and the internet for wayfinding. Roanoke Outside has developed a significant website with maps and trail information.

Mapping tools change constantly, and it is a challenge to keep web maps current and applications up-to-date. Pathfinders for Greenways initially developed the greenway website with volunteers, but neither they nor the Greenway Commission have had the resources to address social media trends and the demand for on-line information. Web maintenance and upkeep, calendars of events on greenways, notice about weather related closures and conditions, and interactive mapping are demands that have grown significantly since 2007.

3.3.4. User Conflicts

As use of Roanoke River Greenway has increased, conflicts between users has become a significant concern. Pedestrians complain about the speed of bicyclists, and bicyclists complain that pedestrians are unpredictable and take up the whole trail. Several injuries and even a lawsuit have occurred. Pets are also a significant source of conflict, as leashes impact bicycle safety. Concerns about pet waste cleanup and water quality have led to installation of numerous Mutt-Mitt stations. User conflicts and fear of being hit by a bicycle are most common in the City of Roanoke, where the greenway is longer, but conflicts also occur in Salem, where sunbathers on the trail obstruct users and where fishermen may cast too close to the greenway.

The Greenway Ambassador Program was started to encourage common courtesy and etiquette along the greenways, in hopes of improving behavior and reducing interactions. Ambassadors patrol in official vests, talk to other users, and report maintenance issues to staff. Other proposed solutions to user conflicts include: centerlines, wider greenways, separate pedestrian and bicycle lanes, speed limit signs, and speed limit enforcement. The public feels that connecting the greenway network more thoroughly to bike lanes and other greenways could take pressure off popular stretches by dispersing traffic. Marketing and education are important factors for letting people know about other trails and appropriate greenway etiquette.

3.3.5. Event Management

The greenways have become a popular place for fund raising events such as races, weekly pub runs, church services, reunions, and informal outings such as bike rides for Scouts and other groups. The City of Roanoke now regulates events, charging for the use and limiting the number of closures of the greenways. The City of Salem does not allow races on the trails. Other jurisdictions are still developing policies. Management of group use is an on-going concern, as individuals and groups vie for space for their activities.

3.3.6. Amenities

The array of amenities along the greenways has increased significantly since 2007. Benches, water fountains, wildflower gardens, art sculptures, and bike racks are prevalent. Bathrooms are the resource in most demand. Some bathrooms have been retrofitted for year round use, and port-a-johns are available when budgets allow. Donations and volunteer help for installation of smaller items like benches and kiosks are easier to obtain than funding for long term maintenance and replacement.

Greenway Identification Signs

The Greenway Planning, Standards and Safety Committee initially recommended the incorporation of street addresses into greenway identification signs, especially at trailheads and parking areas. These addresses serve an important function as a safety measure, allowing quick response for emergency calls, and as a wayfinding measure for those navigating with a phone or other mapping device.

Additionally, wayfinding signage can direct users of all transportation modes on how to reach the greenway and can assist users in reaching other greenways in the network once on a particular route.



Greenway Identification Sign, Town of Vinton

3.3.7. New Equipment

New equipment is constantly being developed and often shows up on the greenways. The most recent are motorized skateboards and E-bikes, bicycles with an electric battery to assist the cyclist in climbing hills. Motorized vehicles are prohibited on the greenways, unless for ADA purposes. Those purchasing this equipment may not realize it is not allowed. Big wheels, tricycles, skateboards, and even electric wheelchairs can be problematic if not used responsibly. There is increasing demand for cell reception, chargers for electric wheelchairs, and webcams to provide reports on flooding. Each new item will require consideration, decisions by staff, and possibly ordinances.

3.3.8. Staff Challenges

While the Greenway Commission itself is responsible for planning, securing grant funding, and working with the public, as well as identifying future projects and helping to see that those projects are built, the Commission is not currently involved in management. This is handled by the member localities. Each member locality has different procedures, organizational challenges, and statutes that can directly affect user experience on the greenway network.

Greenways are popular facilities and staff in all the localities have been proud to keep them well maintained. Staff are challenged by:

- **Funding:** Greenway construction across the region is being funded largely with state and federal grants, matched by local capital monies and in-kind labor. Budgets for managing departments do not always grow as the network grows. This means that management must be increasingly inventive in how they approach maintenance.

- **Landscaping:** Landscaping methods have shifted due to a variety of factors, including funding and stormwater control. Maintaining flowerbeds and mowing regularly require staff resources that are often not available. There are benefits to allowing forested or native grass landscaping to occur: it is lower maintenance and reduces runoff into streams and rivers often running parallel to greenways. However, the public may not be aware of these water quality benefits and may demand a maintenance level that is not affordable or environmentally friendly.

- **Flooding:** Two types of flooding were discussed as challenges for greenway maintenance. The first was flooding due to rising rivers and streams, which can block trails, leave mud and trash, and sometimes destroy bridges and fencing. Staff are challenged to get the greenways cleared after these events. The second kind of flooding is due to extreme storm events, particularly on unpaved trails, causing water to stream down the trail and wash out gravel or other trail structure. Repairs are often costly and may only hold until the next storm event. Both of these types of flooding came up during public input meetings, as well as staff session, specifically in regards to Roanoke River Greenway and Wolf Creek Greenway, respectively.

- **Maintaining Amenities:** Staff expressed concerns with the cost of maintaining amenities such as trashcans and bathrooms, which are often requested by the public. Costs include staff time, repairs, and regular upkeep. While amenities such as benches are added incrementally after a greenway is installed, funding for maintenance and replacement seldom grows.

Stormwater Management

The greenway system has many environmental benefits to the Roanoke Valley. These can be increased by partnering between departments which manage the greenways and Stormwater agencies. Some examples of existing partnerships include Mutt Mitt stations for reducing pet waste that could run off into nearby rivers and streams, and planting riparian buffers to improve water quality. Educating the public about the broader environmental benefits of riparian buffers may reduce demand for mowing and more maintenance intensive landscaping.



Riparian Buffers Preserve Water Quality

• **Vandalism:** Like all public spaces, greenways have vandalism. Potential solutions to prevent or avoid vandalism include solar lights, greater police presence, proactive landscaping decisions that improve sightlines, installation of cameras, and increased volunteer presence, such as the Greenway Ambassadors.

• **Securing Good Design:** Lastly, management staff pointed out that many problems can be ameliorated via good design, but maintenance staff are not always involved in the design phase. Also, the funding source may dictate the standards used for construction.

3.4. OTHER TAKEAWAYS

One of the most important takeaways from this section is the need for locality staff to work together across jurisdictions in order to support one another and to coordinate across departments within each locality. Greater coordination can provide several important outcomes, including increasing the uniformity of experience for greenway users throughout the system; maximizing the utility of infrastructure additions such as bathrooms and water fountains; and trading knowledge and best practices. Some of the best practices for area localities have been included in this chapter for reference, but the practice of greenway maintenance is constantly evolving. New challenges will require new solutions, and sharing those solutions will be helpful.

It is important to recognize some of the funding issues which will continue to exist and begin thinking about the Greenway Commission's role in exploring new funding sources. Grants have been a primary source of funding for the greenway system, but grant funding is often only available for projects which design or build new parts of the network, and, more rarely, for large repair projects. Maintenance funding and funding for staff positions continues to be a challenge for localities. Funding for amenity improvements requested by the public, such as bathrooms, lighting, edible landscapes, and trash cans, should be prioritized along with funding for staff support to maintain these new amenities.

Lastly, partnerships with the community are an important element of continuing to fund and improve the greenway network. There are numerous ways of fostering a sense of community along the greenway. Signage to educate people on protocol for interacting with other users, information on upcoming events and programs which use the greenway, and partnerships with public and private entities can all help to improve the utility of the greenway corridors and satisfaction of users. Some examples include erecting kiosks with information about stormwater management, using yield signs to encourage etiquette and sharing, or developing commemorative plates to thank citizens and organizations who have shaped the greenway system. Many, many groups use the greenways, and it is important to work with these groups to encourage ownership, love and care for the facilities.



Commemorative trees and benches are a way that citizens feel connected to the greenways.

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4. GREENWAY NETWORK

4.1. PRIORITIZATION OF GREENWAYS

The 1995 Plan recommended 51 greenway routes with each route labeled as either on-road or off-road on a map. The 2007 Plan focused on the off-road routes (35) and endorsed the 2005 Bikeway Plan and 2012 Update for on-road routes. In response to public and staff input, this 2018 Plan includes off-road routes and important on-road connectors. The 2018 Plan groups routes based on their role in the greenway network and their progress to date. On any given greenway, localities will be at different stages depending on the proximity to urban areas, opportunity for coordination with other developments, funding, availability of rights-of-way, and total workload.

Roanoke River will be in Category 1 and is the primary greenway corridor, the region's #1 priority since 2007. Category 2 routes are those hard surfaced greenways that are underway and that provide arterial north-south corridors, most connecting to Roanoke River Greenway. Category 3 routes are those greenways and trails that are most important to the region, provide destinations for users, or are funded/underway within a locality. Category 4 is routes with no resources at this time in terms of land or funding. Category 5 includes routes that are largely complete and clusters of trails and destinations on other public lands that help provide connectivity for the greenway network. This 2018 Plan, like the 1995 Plan, lists on-road routes to provide connectivity, described in Chapter 5; it also recognizes the blueway corridors that were introduced in 2007 and have developed since then, complementing the greenway system.

All greenways and trails discussed in this section are listed alphabetically. The number for each route is the number used on the Greenway Plan Map inside the back cover of this document; all routes and their numbers are shown in Table 4-1.

Category 1 Route: **Map #40: Roanoke River Greenway**

The only greenway in this category is Roanoke River Greenway, the longest greenway in the regional network. Many sections of this paved greenway are built, and it is still the #1 priority, in order to focus efforts on finishing it. This east-west route has proven to be an invaluable community asset in terms of economic development, tourism, special events, recreation, health, and environmental education. Roanoke River Greenway is the backbone of the greenway network.

Category 2 Routes: These are hard surfaced greenways which will run north and south from Roanoke River Greenway to the public lands surrounding the valley. Sections of each have been built, with some started and others extended over the last ten years. These routes provide the arterials, the major side corridors of the greenway network.

The Category 2 routes are:

- Map #18: Glade Creek Greenway
- Map #22: Hanging Rock Battlefield Trail
- Map #27: Lick Run Greenway
- Map #29: Mason Creek Greenway
- Map #43: Tinker Creek Greenway

Category 3 Routes: These routes are either important to the region, destinations, funded or engineered within a locality, or progressing with significant planning and design. Some are partially, but not completely, built. They may also be trails on another agency's land, where a portion of the network is complete but additional connections are needed or planned. They can be hard surface or natural surface. Many are important for connection to the network, economic development and public health.

The Category 3 Routes are:

- Map #5: Blue Ridge Parkway Trails
- Map #7: Carvins Cove Trail Network
- Map #9: Catawba Greenway
- Map #12: Daleville Greenway
- Map #13: Eagle Rock Greenway
- Map #14: Elizabeth Greenway
- Map #15: Explore Park Trail Network
- Map #16: Garden City Greenway
- Map #19: Gladetown Trail
- Map #24: Hinchee Trail
- Map #34: Murray Run Greenway
- Map #37: Poor Mountain Trails
- Map #38: Read Mountain Greenway
- Map #39: Read Mountain Trails
- Map #44: Wolf Creek Greenway

Category 4 Routes: These are other greenway projects to be addressed as opportunity and resources arise. They may be routes that localities are working on when possible or routes which have strong citizen support but no resources in terms of land or funding.

The Category 4 Routes are:

- Map #2: Back Creek Greenway
- Map #3: Barnhardt Creek Greenway
- Map #6: Carvin Creek Greenway
- Map #8: Carvins Cove Connections
- Map #11: Craig Creek Trail
- Map #17: Gish Branch Greenway
- Map #25: James River Greenway
- Map #28: Long Ridge Trail
- Map #30: Masons Cove Greenway
- Map #33: Mudlick Creek Greenway
- Map #35: National Forest Connections
- Map #36: Perimeter Trail
- Map #41: Roanoke River Greenway Extensions
- Map #42: Spring Hollow Trails

Category 5 Routes: These are existing trails and greenway projects that are substantially complete, given existing planning. They may be clusters of trails or destinations on public lands that help provide connectivity for the greenway network. While substantially complete, they will continue to require maintenance and may need improvements.

The Category 5 Routes are:

- Map #1: Appalachian Trail
- Map #4: Birding and Wildlife Trail Sites
- Map #10: City, County, and Town Park Trails
- Map #20: Green Hill Park Trails
- Map #21: Greenfield Trails

- Map #23: Havens Wildlife Management Area Trails
- Map #26: Jefferson National Forest Trails
- Map #31: Mill Mountain Greenway
- Map #32: Mill Mountain Park Trails

On-road Category: This 2018 Plan recognizes how important the on-road connections are for continuity in the system. Existing on-road routes, such as U.S. Bicycle Route 76 and bike lanes, are shown in Chapter 2, Table 2.4. Connectivity is discussed in more detail in Chapter 5 and suggested connections are shown on the Regional Connectivity Map, page 76.

The On-Road developments suggested are:

- Bike accommodations on arterials;
- Infrastructure suggested in urban development area (UDA) plans and designated growth area (DGA) plans;
- Neighborhood connections to Roanoke River Greenway and bike routes; and
- Neighborhood sidewalks and greenway connections.

Blueways: This 2018 Plan recognizes the blueway routes as important recreation opportunities that contribute significantly to the economic impact of the greenway and trail networks. The existing blueways – Upper James and Roanoke River – are discussed in Section 2.2.6.

The potential blueway routes are:

- Back Creek Blueway
- Craig Creek Blueway
- Jennings Creek Blueway
- Mason Creek Blueway
- Tinker Creek Blueway

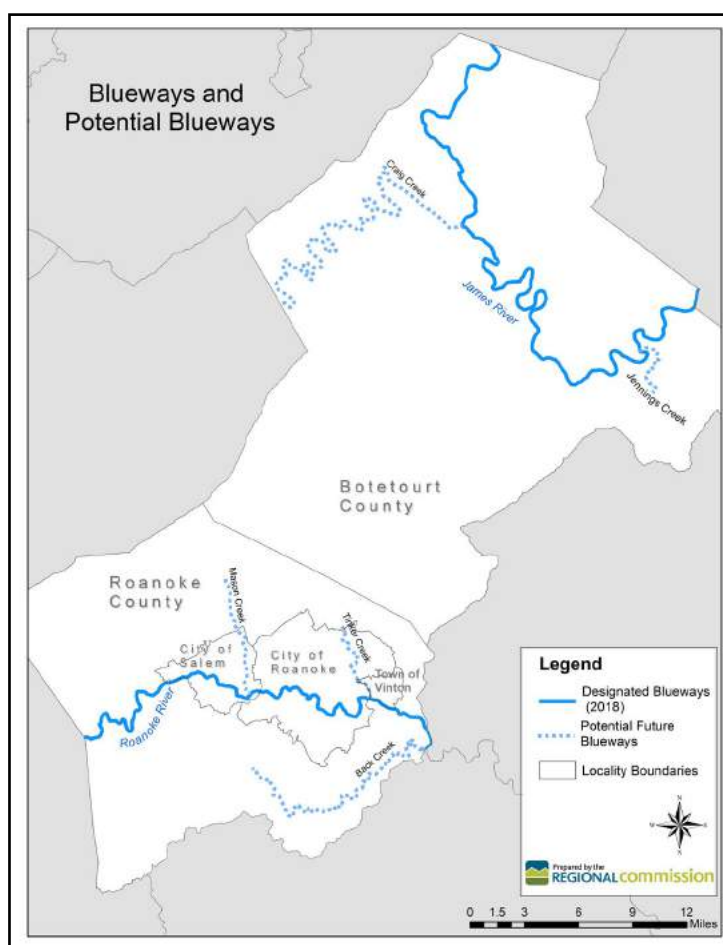


Figure 4-1: Blueway Routes

On the Greenway Network Map, Appendix H, included inside the back cover of this 2018 Plan, the greenway routes are listed and numbered in alphabetical order. Table 4-1 (p.32) shows the numbering system, jurisdiction, and surface expected for each trail.

Table 4-1: 2018 Roanoke Valley Greenway Network

PROJECT NAME	Plan #	Localities	Category	Surface
Appalachian Trail++	1	Roanoke and Botetourt Counties, City of Roanoke	5	C
Back Creek Greenway	2	Roanoke County	4	B-C
Barnhardt Creek Greenway	3	Roanoke County, City of Roanoke	4	A-B-C
Birding and Wildlife Trail Sites	4	All	5	A-B-C
Blue Ridge Parkway Trails++	5	Roanoke County, City of Roanoke	3	C
Carvin Creek Greenway	6	Roanoke County	4	A-B-C
Carvins Cove Trail Network	7	City of Roanoke	3	C
Carvins Cove Connections	8	Roanoke and Botetourt Counties	4	B-C
Catawba Greenway	9	Roanoke County	3	B-C
City, County, and Town Park Trails	10	All	5	B-C
Craig Creek Trail	11	Botetourt County	4	B
Daleville Greenway	12	Botetourt County	3	A-B
Eagle Rock Greenway	13	Botetourt County	3	B-C
Elizabeth Greenway	14	City of Salem	3	A-B
Explore Park Trail Network	15	Roanoke County	3	B-C
Garden City Greenway	16	City of Roanoke	3	A-B
Gish Branch Greenway	17	City of Salem	4	B-C
Glade Creek Greenway	18	Town of Vinton, Roanoke County, City of Roanoke	2	A-B-C
Gladetown Trail	19	Town of Vinton	3	C
Green Hill Park Trails	20	Roanoke County	5	B-C
Greenfield Trails	21	Botetourt County	5	B-C
Hanging Rock Battlefield Trail	22	City of Salem, Roanoke County	2	A-B
Havens Wildlife Management Area Trails+	23	Roanoke County	5	C
Hinchee Trail	24	Roanoke County	3	C
James River Greenway	25	Botetourt County	4	B-C
Jefferson National Forest Trails++	26	Botetourt and Roanoke Counties	5	B-C
Lick Run Greenway	27	City of Roanoke, Roanoke County	2	A
Long Ridge Trail	28	Roanoke County	4	C
Mason Creek Greenway	29	Roanoke County	2	B-C
Masons Cove Greenway	30	City of Salem, Roanoke County	4	A-B
Mill Mountain Greenway	31	City of Roanoke	5	A
Mill Mountain Park Trails	32	City of Roanoke	5	C
Mudlick Creek Greenway	33	Roanoke County, City of Roanoke	4	A-B
Murray Run Greenway	34	City of Roanoke, Roanoke County	3	A-B-C
National Forest Connections	35	Botetourt County	4	C
Perimeter Trail	36	Roanoke & Botetourt Counties	4	C
Poor Mountain Trails+	37	Roanoke County	3	C
Read Mountain Greenway	38	City of Roanoke, Roanoke County	3	A-B-C
Read Mountain Trails	39	Roanoke and Botetourt Counties	3	C
Roanoke River Greenway	40	Roanoke County, Cities of Roanoke and Salem	1	A
Roanoke River Greenway Extensions	41	Franklin and Montgomery Counties	4	A-B-C
Spring Hollow Trails	42	Roanoke County	4	C
Tinker Creek Greenway	43	City of Roanoke, Roanoke and Botetourt Counties, Town of Vinton	2	A-B-C
Wolf Creek Greenway	44	Town of Vinton, Roanoke County	3	B
+State Jurisdiction ++Federal Jurisdiction	Design Guidelines in Appendix G.	A = Paved, asphalt or concrete; B = Crushed aggregate stone, wood chips; C = Natural surface, wood chips, stone, or grass		

4.2. GREENWAY ROUTES

4.2.1. Appalachian Trail, Map #1, Category 5

Description

The Appalachian National Scenic Trail (AT) is a 2,174-mile footpath from Katahdin in Maine to Springer Mountain in northern Georgia. The AT provides the ultimate greenway on the northern edge of the Roanoke Valley, with 79 miles in Roanoke and Botetourt Counties. This trail is managed for foot travel only by the National Park Service, U.S. Forest Service/Jefferson National Forest, Appalachian Trail Conservancy (ATC), Roanoke Appalachian Trail Club (RATC), and Natural Bridge Appalachian Trail Club. Bicycles and horses are not allowed on the AT.

Well known lookouts along this section of AT include Audie Murphy Memorial, Dragon's Tooth, McAfee Knob, Tinker Cliffs, Fullhart Knob, and Apple Orchard Mountain. Key access points with parking are located at:

- VA 311 at Dragon's Tooth Trailhead, with access via Dragon's Tooth Trail (Roanoke County);
- VA 311 at the top of Catawba Mountain (Roanoke County);
- VA 779, Catawba Creek Road, with access via the Andy Layne Trail (Botetourt County);
- US 220 in Daleville at the park-n-ride (Botetourt County);
- US 11 near Troutville (Botetourt County); and
- Blue Ridge Parkway overlooks at Blackhorse Gap (Milepost 97.7), Taylor Mountain (MP 97), Montvale (MP 95.9), Harvey's Knob (MP 95.3), Bobblets Gap (MP 93), and Bearwallow Gap (MP 90.9) (Botetourt County).

There is also access to the AT via Sawmill Branch Trail within Carvins Cove Natural Reserve.

Information on the AT is available from many sources, including the [National Park Service](#), the [Appalachian Trail Conservancy](#), and the [Roanoke Appalachian Trail Club](#).

Status

In the last five years hiking use of the AT in this region has increased dramatically. McAfee Knob has become the iconic destination overlook, with hiking there on the "bucket list" for college students and tourists. McAfee Knob appears as background on billboards and websites and is now the Roanoke County logo. This increase in use has led to significant management issues, including overflowing parking lots, parking on the edge of roads, trail erosion and widening, trash, and frequent search and rescue calls. RATC and ATC have responded by adding port-a-johns at the McAfee parking lot, hiring ridgerunners, encouraging use of the McAfee fire road, and organizing a volunteer McAfee Knob Task Force to provide visitor information and education.

There are several plans which propose new access connections to the AT. The Carvins Cove Trail Plan proposes Rocky Branch Trail as #36 from the boat landing to the AT near the powerline crossing. This 2018 Plan proposes two routes which would cross the AT – Tinker Creek Greenway (#43) crossing near the Tinker Creek bridge and #8, which would cross near Angel's Gap to provide a connection from Carvins Cove to Botetourt County. Permission for such crossings would require concurrence from various partners and National Park Service approval and environmental compliance.

Challenges

The congestion at the McAfee parking lot has led VDOT to increase safety signage, including rumble strips and flashing lights. VDOT has also received funding for FY 21-23 to provide a bridge over Rt. 311 to reduce pedestrian crossings of the road. The crossings of US 220 near Daleville and of US 11 near Troutville are also a significant challenge and need safety improvements.



Dragon's Tooth is one of the destination AT sites in this region.

Because the managing partner for this section of AT, the National Park Service, does not have a local office, much of the burden of this increase in use falls on the local partners, especially the volunteers of RATC. The Appalachian Trail Conservancy is assisting with funding for additional ridgerunner hours and has organized meetings for local, state, and federal staff with management roles. Roanoke County has increased its emergency services to the area and those volunteers have spent significant time exploring the most efficient rescue routes. VDOT has stepped forward with improvements and grants. More may be needed.

An ever present challenge for the AT is growth and development within the viewshed or near the AT corridor. Botetourt County is encouraging economic development, and a 256-unit apartment complex is being built next to the AT. This will undoubtedly increase use on that side of Tinker Mountain and increase maintenance needs, but could also bring new volunteers and supporters.

Next Steps

While the AT is a National Park, it is dependent on volunteers and the cooperative management system. ATC should continue to facilitate meetings among all the management partners and to explore management options. Resources from volunteers and governments will continue to be needed to protect this iconic resource.



McAfee Knob is one of the most photographed points on the AT.

4.2.2. Back Creek Greenway, Map #2, Category 4

The 1995 Plan included a greenway route (#45) along the entire length of Back Creek. Exploration of the corridor, setting of priorities, and recognition of the extensive acquisition that would be needed led to shortening the route in the 2007 Plan to the section from the headwaters to Merriman Park. Some improvements have been made in this corridor, but there is not yet a continuous greenway route.

At the headwaters of Back Creek there are several public properties which might be linked by a greenway, including a well field site and Back Creek Elementary School. Downstream from Crystal Creek Road Roanoke County manages a large park complex including Darrell Shell and Starkey Parks, Merriman Soccer Complex, South County Library Wetland Trail, as well as Penn Forest Elementary and South County Library. At Darrell Shell there is a fitness loop around the ballfields, and the County has built sidewalks and pedestrian connections between the park facilities which could be linked together as part of Back Creek Greenway. There is a well-used bicycle access point from Merriman Soccer Complex to the Blue Ridge Parkway, which is proposed by the Parkway in its Trail Plan as an official connection of Parkway and greenway trails.



South County Library Wetland Trail was built in 2015.

Route 221 has been widened as far as Cotton Hill Road, and Cotton Hill has been widened to the Parkway. Bike lanes were not included, but a sidewalk for pedestrians and a wide shoulder for bicyclists were included on Cotton Hill. Route 221 is a critical road for bicyclists because it provides a section of so many loop rides, and Cotton Hill could provide access to the Blue Ridge Parkway. Citizens have encouraged Roanoke County to build a greenway on VDOT property in the area between Cotton Hill Road and the bridges downstream. The County has explored this option and reached out to VDOT about permits to do this. An agreement is possible, but at this time there are no financial resources for pursuing this trail.

4.2.3. Barnhardt Creek Greenway, Map #3, Category 4

Barnhardt Creek begins near state property on Long Ridge, parallels the end of Grandin Road Extension, winds through Hidden Valley Country Club and Middle School, and runs into Roanoke River at the Salem/City of Roanoke line. Within the City of Roanoke it is often called Craven Creek. While this route is difficult from a right-of-way standpoint and would require on- and off-road sections, it could provide linkages from suburban neighborhoods like Meadow Creek, Fairway Forest, Farmingdale, Medmont Lake, and Crestwood to Roanoke River and to Poor Mountain Preserve.




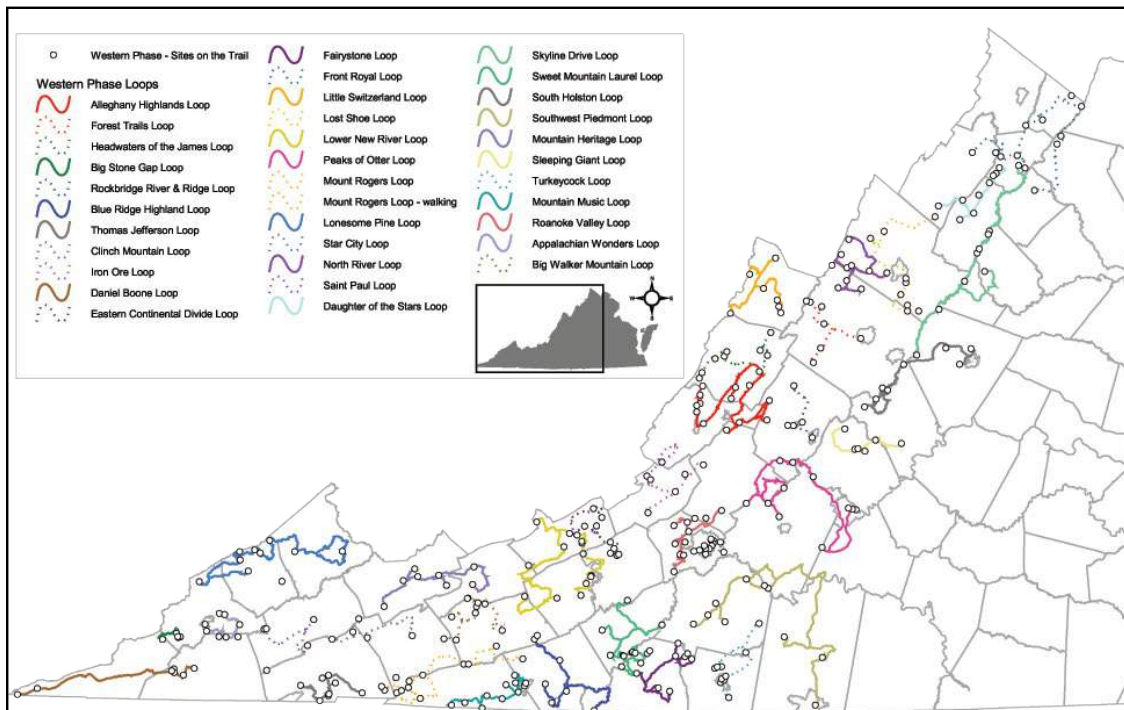
The fifteenth anniversary of the greenway program in 2012 was a special year with nine greenway and trail bridges built by the localities and volunteers.

4.2.4. Birding and Wildlife Trail Sites, Map #4, Category 5

The Virginia Department of Game and Inland Fisheries has developed a Birding and Wildlife Trail to celebrate the state's diverse habitat and bird watching opportunities. The Mountain Area guide includes two loops in the Roanoke Valley, the Star City Loop and the Roanoke Valley Loop, and three loops covering other sites in Botetourt County, the Alleghany Highlands Loop, Iron Ore Loop, and the Peaks of Otter Loop. The guide highlights parks, trails, greenways, and other sites where nature enthusiasts will have good opportunities for observing birds and wildlife and directs users on driving between these sites. While many of the individual sites are otherwise listed in this 2018 Plan with individual map numbers, the Birding and Wildlife Trail is included as a separate "greenway" to highlight its importance as a state network. Due to the number of sites, these are not marked on the Greenway Plan map.

Sites currently listed in the five jurisdictions are:

Table 4-2: Birding and Wildlife Trail Routes in the Region		
Star City Loop	Roanoke Valley Loop	Alleghany Highlands Loop
<ul style="list-style-type: none"> • East Gate Park • Masons Mill Park • Thrasher Park • Wolf Creek Greenway • Explore Park • Chestnut Ridge Trail • Mill Mountain Park (including Star Trail) • Roanoke Water Pollution Control Plant • Tinker Creek Greenway • Wasena Park and Roanoke River Greenway • Rivers Edge Sports Complex • Fishburn Park • Garst Mill Park Greenway 	<ul style="list-style-type: none"> • Woodpecker Ridge Nature Center • Carvins Cove Recreation Area - Boat Landing • Whispering Pines Park • Carvins Cove Recreation Area - Bennett Springs • Havens Wildlife Management Area • Hanging Rock Battlefield Trail • Green Hill Park • Moyer Sports Complex/ Roanoke River Greenway • Poor Mountain Natural Area Preserve • Happy Hollow Garden • Bent Mountain Elementary School 	<ul style="list-style-type: none"> • Callie Furnace
		Peaks of Otter Loop
		<ul style="list-style-type: none"> • Harveys Knob Overlook • Warbler Road
		Iron Ore Loop
		<ul style="list-style-type: none"> • Craig Creek Recreation Area
		



Virginia Birding and Wildlife Trail Guides are available from the Virginia Tourism Corporation at 1-866-VABIRDS, 1-866-822-4737. Additional information and loops are available at [Virginia Department of Game and Inland Fisheries](http://VirginiaDepartmentofGameandInlandFisheries.com).

Figure 4-2: Birding and Wildlife Trails in the Mountain Region of Virginia

4.2.5. Blue Ridge Parkway Trails, Map # 5, Category 3

Description

The Blue Ridge Parkway, a National Park, is a 469-mile recreational motor road through Virginia and North Carolina connecting Shenandoah and Great Smoky Mountain National Parks. The Parkway is a popular on-road cycling route for recreational cyclists, in part due to its limited access and lower traffic levels when compared to most community streets and highways. The Parkway swings in and out of Botetourt County from Milepost (MP) 75 near Arnold Valley Overlook to MP 105 near US 460 and traverses southern Roanoke County from MP 105 to MP 136 near Adney Gap.

The Parkway has several trail systems in the area: 1) the six-mile Chestnut Ridge Loop Trail around Roanoke Mountain Picnic Area, 2) the 13-mile horse trail paralleling the Parkway from US 220 to Stewart's Knob, 3) the one-mile Roanoke River and Fisherman's trails from the overlook to the river, 4) the half mile Buck Mountain Trail from the parking area to an overlook, and 5) ten miles of hiking trail near the Peaks of Otter, including Harkening Hill, Fallingwater, and Flat Top Mountain Trails. None of these trails are open to bicycling. Between 1995 and 2018 the mileage of these trails has varied, as sections have been closed due to damage or insufficient maintenance.

Status

In 2001 the Greenway Commission and the Blue Ridge Parkway signed a General Agreement allowing the Commission to assist with trail planning, mapping, and rehabilitation of Parkway trails. This five-year agreement allowed the Commission to facilitate volunteer assistance in reconstructing and maintaining Parkway trails under the direction of Parkway staff. Work completed during that time included inventory and assessment of the Parkway trail system from MP 121 (US 220) to MP 110 (Stewart's Knob), development of a trail plan (January 2004) which recognized greenway connections at Mill Mountain, Roanoke River, and Wolf Creek Greenways, construction of a portion of Wolf Creek Greenway, and extensive trail rehabilitation on the Chestnut Ridge Loop Trail and horse trail, utilizing volunteers and a grant obtained by the Commission.

In January 2006 the Parkway launched a new trail planning process, with a draft plan released in fall of 2011. In 2013 the Parkway completed its first General Management Plan, but the trail plan was not included. The same trail plan, with no changes in response to significant public and locality input, was released in fall of 2015 as the final [Roanoke Valley/Blue Ridge Parkway Trail Plan](#). The Plan recommended no mountain biking on Parkway trails, except if developed as greenway routes on lands off Roanoke River Parkway. It proposed a new trail from Buck Mountain overlook to Back Creek Greenway, official connections at several access points, and a new trail on Stewart's Knob.



Volunteers built over 200 steps to provide access from the Blue Ridge Parkway to the Roanoke River.

Roanoke County has continued to work with Parkway staff to negotiate a crossing of the Parkway for Roanoke River Greenway. The crossing is proposed to be under the Parkway at Highland Road.

In 2015 Pathfinders' Mid-Week Crew completed a rehabilitation of the Fisherman's Trail at Roanoke River Overlook, building 200 steps down to the river. Minimal funding was provided by Friends of the Rivers of Virginia, Friends of the Blue Ridge Parkway and Pathfinders. This improvement has led to significant increase in boating, as it is the only accessible launch below the dam and above the rapids. The Roanoke Chapter of Friends of the Blue Ridge Parkway

has increased its efforts to pick up trash and maintain trails.

Benefits

The Parkway trails provide many loop connections between Roanoke Valley greenways. Completion of the Parkway system would greatly enhance the regional network. It would also give the Parkway trail attractions in the Roanoke area and much needed assistance with trail construction and maintenance.

Challenges

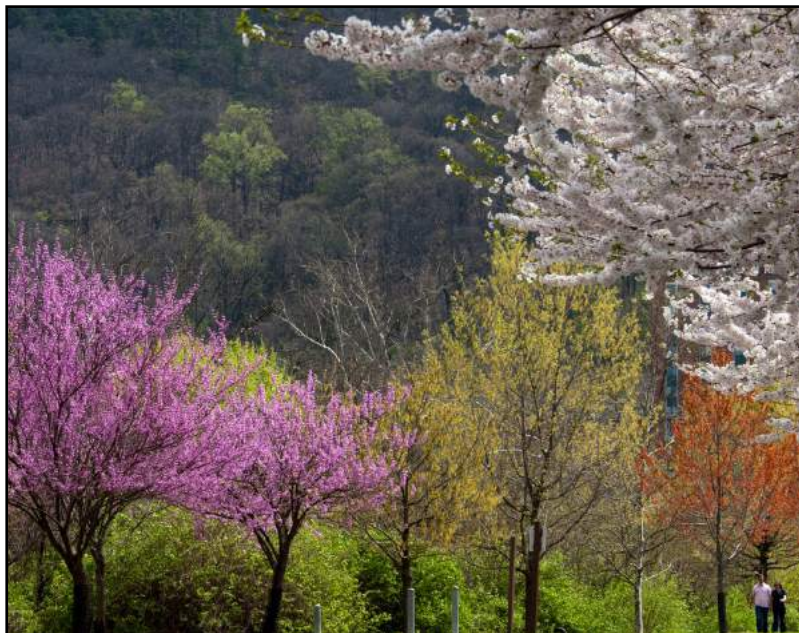
The Parkway is significantly underfunded and understaffed in Virginia, with planning staff located in Asheville, North Carolina; coordination often takes many months or years. In terms of trails, maintenance is challenging because the narrow corridor does not allow sustainable design. Also, to complete the Parkway trail system, a bridge across the Roanoke River for trail users is needed.

Next Steps

The Parkway is looking to volunteers or other organizations for completion of the trail work. No NPS funding is available for it at this time. Volunteers from Pathfinders for Greenways and the Roanoke Chapter of Friends of the Blue Ridge Parkway continue to work on rehabilitation and maintenance of the horse trail and Chestnut Ridge Trail. Roanoke County will continue its coordination efforts to get the Roanoke River Greenway built and the horse trail rehabilitated between Mill Mountain and Explore Park. The City of Roanoke will continue to work with the Parkway on alternative uses of Roanoke Mountain Picnic Area. Roanoke County and City should assist the Parkway with all connections allowed in the Parkway Trail Plan.

4.2.6. Carvin Creek Greenway, Map # 6, Category 4

The 1995 Plan included a greenway route (#9) from Carvins Cove Reservoir to Tinker Creek. Exploration of the corridor, setting of priorities, and recognition of the extensive acquisition that would be needed led to shortening the corridor in 2007. There are two feasible sections. One is from Brookside Park to Tinker Creek. The second section is being incorporated as an option for Tinker Creek Greenway from LaMarre Drive through Hollins University campus to Carvins Cove. (See Appendix E.) The existing trail from Plantation Road to the boat dock at Carvins Cove could be renamed to be part of Carvin Creek Greenway, if Tinker Creek Greenway is developed on another route.



*Greenways and trails provide opportunity to enjoy the beauty of spring.
Photo by David Lewis*

4.2.7. Carvins Cove Trail Network, Map #7, Category 3

Description

The Carvins Cove Natural Reserve is a 12,700-acre municipal park protecting the watershed of Carvins Cove Reservoir. The Carvins Cove Natural Reserve is a 12,700-acre municipal park protecting the watershed of Carvins Cove Reservoir. The Cove, which is owned and managed by the City of Roanoke, is located in Roanoke and Botetourt Counties, 7 miles from downtown Roanoke and 4 miles from Interstate 81. The reservoir is fed by springs and creeks within the Reserve as well as by tunnels from Catawba and Tinker Creeks.

When the Western Virginia Water Authority (WVWA) was formed in 2004, the City gave the reservoir and lands below the 1,200-foot contour to WVWA to be managed as one of the valley's major water sources. The remaining Reserve lands above 1,200' were retained by the City and are managed by the Parks and Recreation Department. Carvins Cove is the largest municipally owned park east of the Mississippi River and the second largest municipal park in the country.

Carvins Cove Natural Reserve can be accessed from three public roads:

- Reservoir Road near Hollins, known as "the boat landing"
- Carvins Cove Road, Route 740 off of Route 311, known as "Bennett Springs"
- Timberview Road

At the Reservoir Road entrance there is a large parking lot, picnic area, fishing pier, restrooms, boat launch, trails, and office. On Carvins Cove Road there is a parking lot, restroom and trailhead located a mile from the Bennett Springs gate. At Timberview Road there is a small parking lot and trailhead.



Volunteers admire the rock they split to make a trail feature.

Status

In 2007 Roanoke Parks and Recreation Department developed a Carvins Cove Natural Reserve Park Management Plan. Subsequently, the City granted a conservation easement to Virginia Outdoors Foundation to protect the lands above 1200'. The Management Plan recognized the need for a trail plan, and in 2009 the Department initiated this planning. The effort was led by the Greenway Coordinator, with significant volunteer help for trail assessments. In 2010 the Carvins Cove Trail Management Plan was approved by Council, documenting 46 miles of trails, the trail termini, degree of difficulty, trail conditions, maintenance needs, and access needs. The plan outlined proposed trail closures, proposed new trails, procedures for approval, and priorities. This plan started a new era in management of Carvins Cove for recreational use and gave both staff and volunteers direction on trail standards, signage, events, and improvements. Volunteers continued to build new trails, now that there was a method for approval and plan for locations. In 2012 volunteers and Roanoke County completed the first linkage from the greenways to the Cove with the construction of Tinker Creek Greenway from Hollins University to the boat landing.

In 2013 the City hired a trail specialist to take on many of the tasks previously done by volunteers, becoming the volunteer coordinator and trail manager. Gradually, this has led to improvement in maintenance of trails, roads, and ditches and in signage, information, and amenities like a bathroom at Bennett Springs. It has also allowed multiple volunteer groups to build trail, thus leading to diversity in trail types.

There are now 56 miles of trail at the Cove, most of them open to hikers, mountain bikers, and equestrians. The trails and allowed uses are shown on the map in Figure 4.3 (p.41). This 2018 Plan incorporates the entire Carvins Cove trail network into the greenway system and recognizes this area as a destination site attracting users from all over the East Coast.

Benefits

The Carvins Cove trail network provides a premier natural area that serves as a destination site for greenway users, as well as for tourists of all trail persuasions. Completion of additional greenway connections to the Cove, such as the Hinchee Trail described in Section 4.2.24, will allow local users to ride to the Cove and will enhance connectivity to other parks and public lands. The Cove has the potential to become a national destination for naturalists, mountain bikers, hikers, and equestrians. The region recently received designation as the first silver level IMBA Ride Center in the east, and this is only possible because of the extensive network at the Cove.

Challenges

Currently, Carvins Cove is in a pristine state with a large system of multi-use trails cared for by dedicated volunteers under the supervision of one staff person. Land use fees are collected by WVWA, but this funding is not available to the Parks Department. WVWA does use these fees to pay for patrols and to make improvements at the boat landing such as a handicapped accessible fishing pier and bathroom renovations. As visitation continues to increase and Carvins Cove becomes more and more a destination site, additional resources will be needed to ensure long-term sustainability of the trails and natural resources at the Cove.



Carvins Cove offers equestrians many miles of trail riding.

This large area has many miles of boundary, adjoining other public lands as well as private lands. There are instances of boundary encroachments, hunting, erection of tree stands, and riding of ATVs. Increased law enforcement presence, surveys when needed, and coordination with multiple agencies will be important to protection of this significant resource.

Next Steps

The City and the Water Authority should continue to coordinate on management of this asset and develop financial resources to maintain its watershed and recreational values. Roanoke County is coordinating with Pathfinders to provide an additional access to the Cove via the Hinchee Trail (Section 4.2.24).

Additional information on Carvins Cove is available at the [City of Roanoke](#) and [WVWA](#) web sites.

4.2.8. Carvins Cove Connections, Map #8, Category 4

Increasingly, users want to be able to reach Carvins Cove without driving to a parking lot. This route recognizes the many requests to connect to the Cove. The routes developed will be dependent on available right-of-way and coordination with other management agencies.

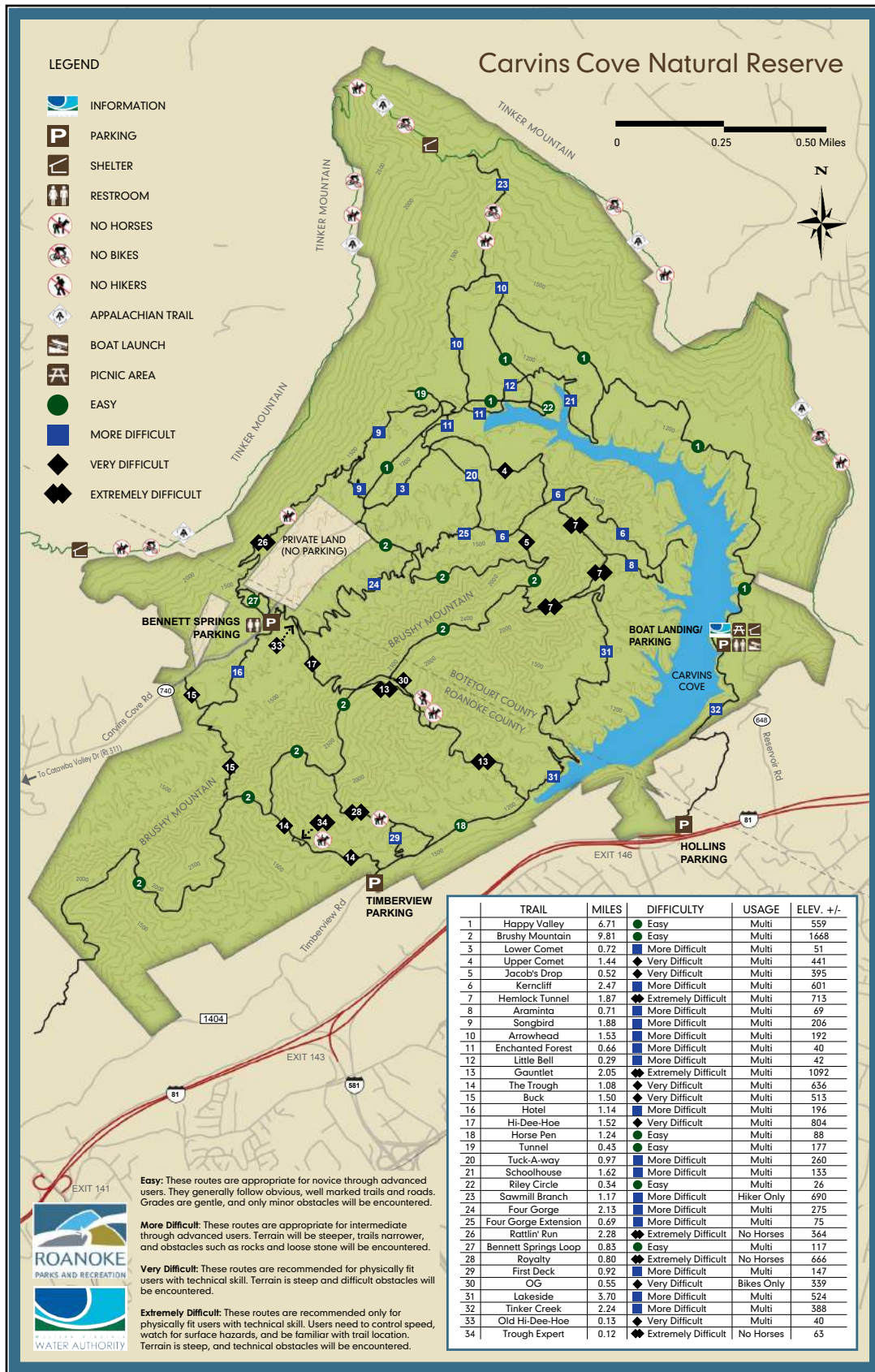


Figure 4 3: Carvins Cove Trail Network: Map of Existing Trails

4.2.9. Catawba Greenway, Map # 9, Category 3

This greenway was added to the Greenway Plan in 2007 at the request of citizens, envisioned as a link between the Appalachian Trail, the National Forest, the Catawba community, and the Roanoke Valley greenway network. The greenway will have two sections, one tying from the AT south of Rt. 311 to Roanoke County's Catawba Community Center and the Virginia Tech Catawba Sustainability Center (CSC); the other section, in Phase 2, will start at a parking lot at CSC and climb the former Rt. 311 to a vantage point for bird watching, then climb up to the fire road to McAfee Knob.

As plans have developed, the trail's role as a connection from the AT to the Catawba community has become increasingly important. Roanoke County and CSC have worked for many years to develop plans and permits for the trail and now plan to build a parking lot and bathroom to relieve congestion at the 311 parking lot. The sections close to the AT are on National Park Service land and require environmental compliance by them. Phase 1, the section south of Rt. 311, was approved in 2012 and built by volunteers in 2013. Roanoke County then built a bridge across Catawba Creek substantial enough to resist frequent flooding. When NPS compliance is finished, volunteers will build the trail from CSC to the fire road. The County is designing a parking lot and bathroom to serve trail users starting at CSC. The upper sections of this route will be hiker only because of the connection to the AT. The planned alignments of the different sections are shown in Figure 4-4.

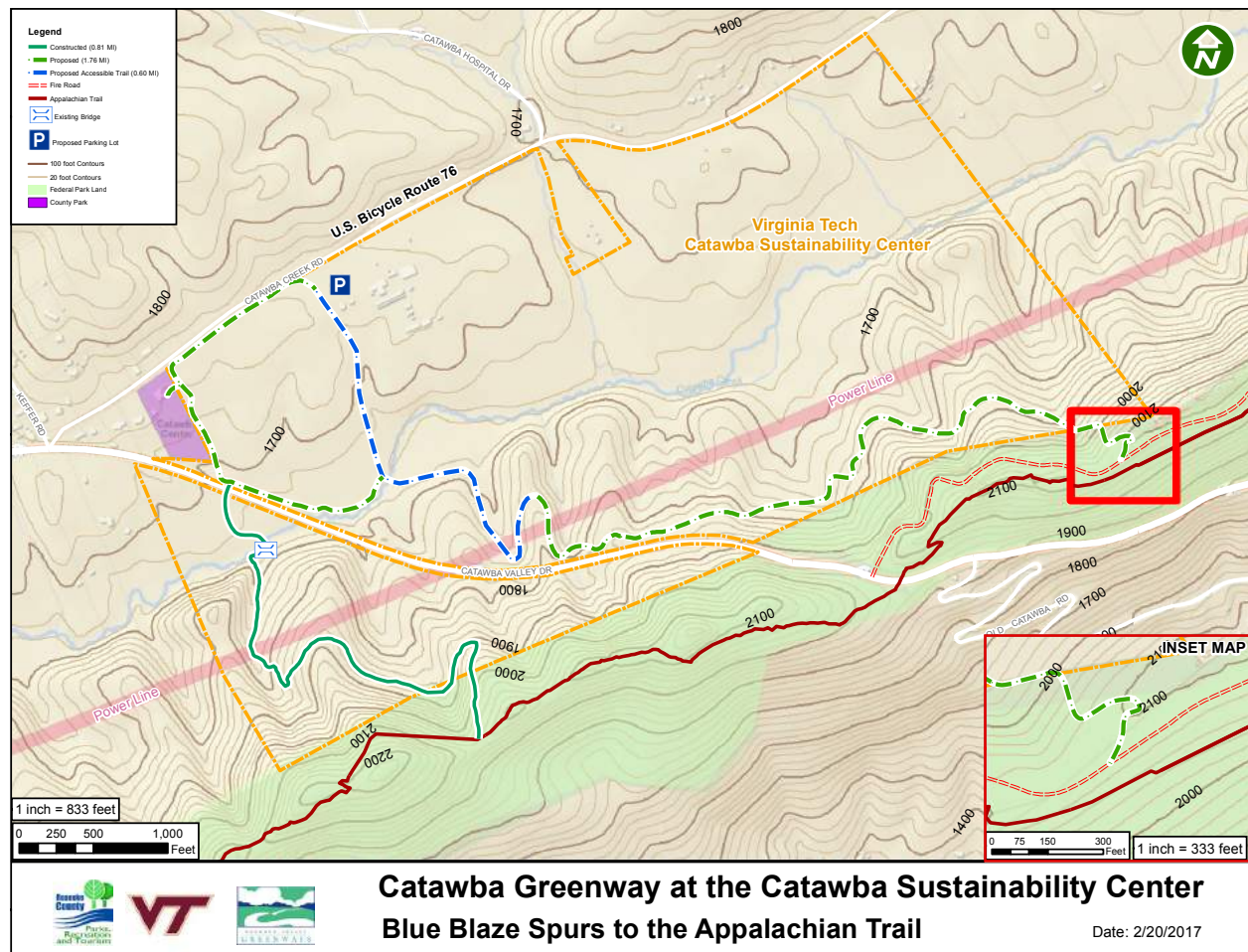


Figure 4 4: Catawba Greenway: Map of Existing and Proposed Sections

4.2.10. City, County, and Town Park Trails, Map #10, Category 5

There are numerous trails within the jurisdictions that have been built as features within local and regional parks or business centers. The City of Roanoke and Roanoke County both have a Parks Master Plan that itemizes trails and trail needs. This item number encapsulates those trails that are not otherwise included in the greenway network. Some of these trails serve the local neighborhood, school or employees, some have become destinations, others are associated with a greenway, and others could be connected to the greenway network, becoming attractions along the way. The City of Roanoke has paved or natural surface trails in Countryside Park (part is Lick Run Greenway), Fallon Park (cyclocross course near Tinker Creek Greenway), Fern Park (connected to Mill Mountain Trails), Fishburn Park (connected to Murray Run Greenway), Highland Park, Jackson Park, Kennedy Park (near Lick Run Greenway), Lakewood Park (near Murray Run Greenway), Norwich Park (near Roanoke River Greenway), and Ridgewood Park. In Roanoke County there are trails in Darrell Shell Park, South County Library, Starkey Park and Merriman Soccer Complex (all associated with Back Creek Greenway and Blue Ridge Parkway trails); Happy Hollow Gardens (terminus of proposed Long Ridge Trail); Walrond Park; Oak Grove Park, Hollins Park, and Mount Pleasant (near Blue Ridge Parkway Trails). In the Town of Vinton there are trails in Vinton Business Center, and in the Town of Buchanan trails are used at the Town Park. In Botetourt County there are trails in Boxley Park and Blue Ridge Park. There is a high demand in the region for additional trails close to home, and future development could help strengthen communities by providing local recreation opportunities and neighborhood connections through parks to greenways.

4.2.11. Craig Creek Trail, Map #11, Category 4

This route is included because it was so frequently mentioned by the public. There is an abandoned C&O rail line from New Castle to Eagle Rock, largely owned by VDOT and the Jefferson National Forest. Fifteen miles of this 26-mile route are in Botetourt County; the remainder is in Craig County, which is not a member of the Greenway Commission. In 2000-01 the Virginia Department of Conservation and Recreation (DCR) conducted a study of the potential of making this a rail-trail. There was vehement public objection, largely from residents of Craig County where many adjacent landowners were using the property as their own. Since then, Craig County has developed a trail on the rail bed from New Castle to Craig County Schools. In Botetourt County the rail bed is used in some locations for driveway access, but is largely open to the Forest Service Craig Creek Recreation Area. Botetourt County has acquired the rail property near Eagle Rock and is moving forward to develop a trail on it.

4.2.12. Daleville Greenway, Map #12, Category 3

Botetourt County is proposing a hard surfaced greenway trail in the greater Daleville area designed to accommodate pedestrians and bicyclists. The Botetourt Greenway Committee has studied the project's feasibility and conducted public outreach among area property owners to establish a viable route. Once built, the Daleville Greenway will connect various residential, recreational and commercial amenities. Among the proposed connections for the first phase are the Glebe Retirement Community, Daleville Town Center, and U.S. Bicycle Route 76. The Daleville Greenway could ultimately provide a connection from Greenfield to the proposed Tinker Creek Greenway extension coming out of the Roanoke Valley.

4.2.13. Eagle Rock Greenway, Map #13, Category 3

Botetourt County seeks to provide a hub for outdoor recreation and highlight the historic and natural resources of Eagle Rock by creating a future boat landing on the Upper James Water Trail, along with a small park and greenway connection to town. The proposed greenway connection follows the CSX Transportation main line, which runs between Railroad Avenue and the James River through Eagle Rock. The project area also includes a retired railroad bridge that crosses the James River. The bridge formerly served the C&O Railroad's Craig Valley Line. It had a county road cantilevered on the north side, and a pedestrian path cantilevered on the south side. Rehabilitation of this structure could provide future greenway access across the James to Craig Creek Road and the Craig Creek Trail, if developed. An [engineering study](#) was conducted in 2015 assessing challenges and opportunities of the area.

4.2.14. Elizabeth Greenway, Map #14, Category 3

Most of the area within the triangle bordered by Texas Street, Lynchburg Turnpike, and Idaho Street has long been known as the Elizabeth Campus. In 1998 Salem rezoned portions of the property for commercial development. The Salem YMCA was built and numerous enterprises have been built within the Salem Commerce Park. Roanoke College still maintains its portion of the Elizabeth Campus, including buildings, soccer fields and tennis courts. This greenway will provide recreational use through the properties and will help connect downtown Salem to the Salem Civic Center.

4.2.15. Explore Park Trail Network, Map #15, Category 3

[Explore Park](#) is 1,100 acres of state owned land managed by the Virginia Recreational Facilities Authority (VRFA) and leased for 99 years to Roanoke County. The park includes many recreation opportunities like canoeing, fishing, picnicking, hiking, and mountain biking. Within the park are a Blue Ridge Parkway Visitor Center, the Brugh Tavern, Arthur Taubman Center, and a restored church which can be rented for special events. Access to the park is from Blue Ridge Parkway Milepost 115 via Roanoke River Parkway.

Roanoke County completed the [Explore Park Adventure Plan](#) in 2016 to guide development of the park and expansion of recreation opportunities. Explore Park’s trail system has several components, including 14 miles of mountain bike trails, hiking trails, and interpretive trails. Volunteers have provided assistance with construction and maintenance of these trails, as well as with those at Mayflower Hills Disc Golf Course, which opened in spring 2018.

The County has a contract for design of Roanoke River Greenway to Explore Park and is seeking funding for sections through the park. Roanoke River Greenway will be a major non-motorized transportation corridor to and within the park. Development of Explore Park is underway, with camping opportunities anticipated by summer of 2018.



Rutrough Point at Explore Park is a popular fishing area.

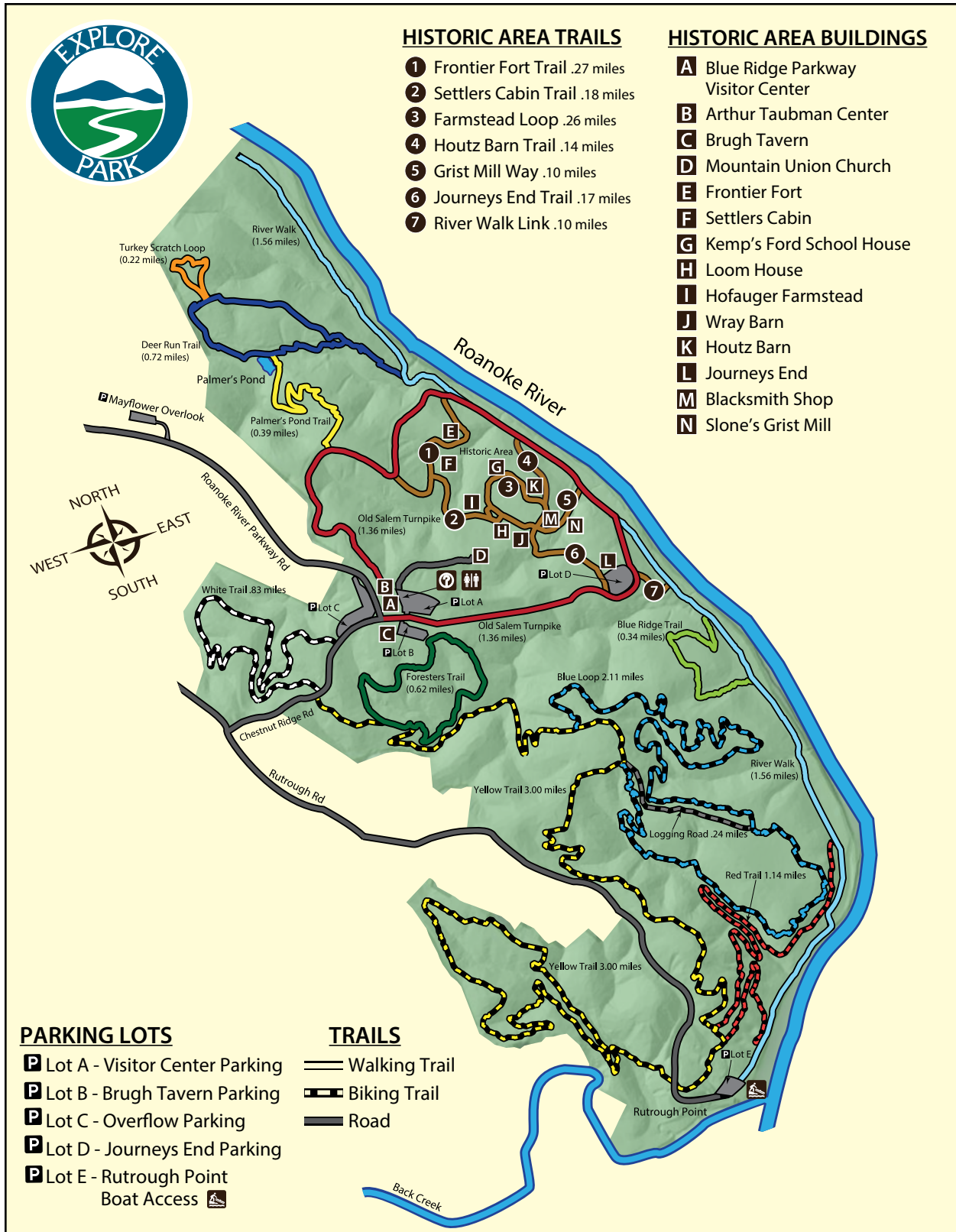


Figure 4-5: Explore Park Map of Existing Trails

4.2.16. Garden City Greenway, Map 16, Category 3

The Garden City Greenway corridor follows Garnand Branch from the Roanoke River near the American Electric Power (AEP) substation to Garden City Recreation Center, with a potential connection to the Blue Ridge Parkway trails. Construction of this greenway was mentioned often by the public in development of the 2005 Garden City Neighborhood Plan. In 2014 Roanoke City received Safe Routes to School funding to begin the project, generally as an on-road widened sidewalk. When the roundabout at the intersection of Bennington St. and Rt. 116 was built, a path connecting from Garden City Boulevard to Roanoke River Greenway was included. In 2016 pedestrian crossings to the trail segment built with the roundabout and a bridge across Garnand Branch were installed at the Riverland Road/Garden City Boulevard stoplight; wide sidewalks were included when the corner property was developed. In January 2018 construction began on the lower off-road portion of the greenway, utilizing properties purchased with flood mitigation funds. This greenway is a major improvement to the pedestrian and bicycle facilities of this neighborhood and, when complete, can provide important connections from Roanoke River Greenway through the neighborhood to the trail networks of Mill Mountain Park and the Blue Ridge Parkway.



Garden City Greenway provides for safe travel through the neighborhood.

4.2.17. Gish Branch Greenway, Map #17, Category 4

Gish Branch is a tributary of Mason Creek, and the corridor includes several historic structures related to the Valley Railroad. This greenway could link Salem neighborhoods to the Hanging Rock Battlefield Trail and the Exit 140 Park-n-Ride.

4.2.18. Glade Creek Greenway, Map #18, Category 2

Glade Creek is a tributary of Tinker Creek, with headwaters in eastern Roanoke and Botetourt Counties near US 460. The floodway for the creek is quite wide, and numerous homes in the Town of Vinton were lost during the flood of 1985. For many years corporate sponsor Orvis, Roanoke County, and other partners have worked on various ways to protect the creek from sedimentation and erosion and to improve fish habitat. In 2017 the Town completed construction of the first section of this greenway from Tinker Creek at Virginia Avenue to Walnut Avenue. The Town is designing the next section from Walnut to Gus Nicks Boulevard, through Gearhart Park, in 2018, with expected construction in 2018-19, and is including the greenway in plans for redevelopment of Gish's Mill. From there the projected alignment along the creek will include a difficult crossing under a Norfolk and Southern trestle, where the greenway will enter Roanoke County's Vinyard Park. Beyond Vinyard Park the greenway could connect to developments in the City of Roanoke or to the Blue Ridge Parkway near Stewarts Knob. The portion in Vinyard Park is a priority for Roanoke County in its Parks master plan.



The first section of Glade Creek Greenway was completed in 2017.

4.2.19. Gladetown Trail, Map #19, Category 3

Gladetown Trail in Vinton was built by Pathfinders' volunteers in 2012 as a loop trail from the Craig Avenue Recreation Center around the stormwater management pond. The connection on to Niagara Road has been explored and is included in Vinton's Comprehensive Plan, with connections to the Tinker Creek canoe launch, developed in 2015, and to Wolf Creek Greenway.

4.2.20. Green Hill Park Trails, Map #20, Category 5

Green Hill is a 224-acre Roanoke County Park located along the Roanoke River west of Salem. The park offers a range of festival events, sports, and recreation opportunities. It includes an equestrian facility with show rings, stables, and a hunt course. The Greenway Coordinator and Pathfinders' volunteers worked with Roanoke County in 2008 to develop a trail plan and build 1.9 miles of multi-use trails for hiking and mountain biking. These tie into the section of Roanoke River Greenway through the park, which opened in 2008.

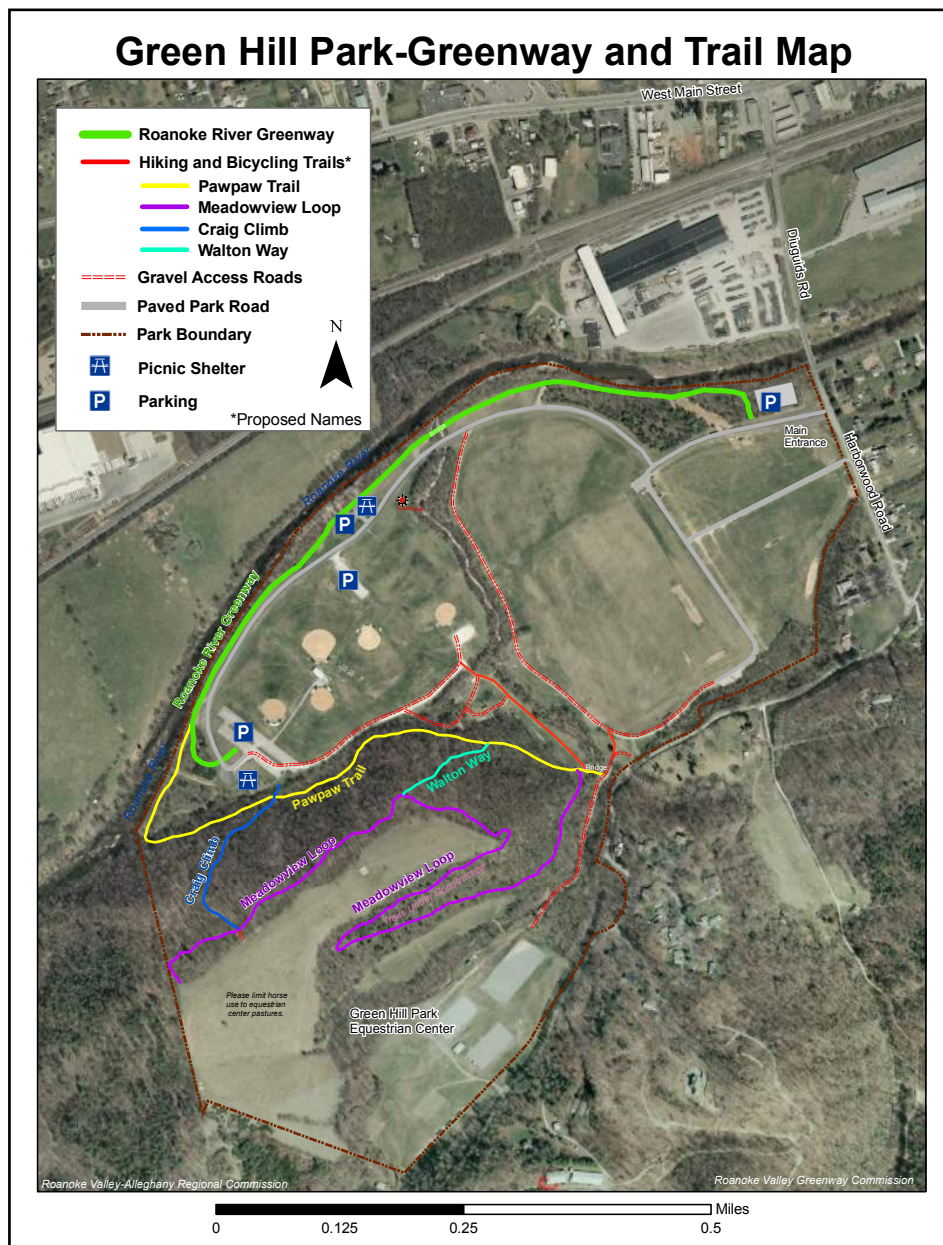


Figure 4-6: Green Hill Park: Map of Roanoke River Greenway and Other Trails

4.2.21. Greenfield Trails, Map #21, Category 5

Located north of the Daleville Town Center on US 220, Greenfield Park is a large recreational area that features the Sports Complex (a baseball/softball stadium), soccer fields, a disc golf course, a playground area, and county owned trails. The trail system weaves through the Botetourt Center at Greenfield, which is a business park that contains parking for trailheads. These trails were built and are maintained by the County and include the Cherry Blossom Trail, Holiday Boyer Trail, William Preston Trail, and Greenfield Recreation Trail. Some are handicapped accessible, cinder-surface trails; others are grass surface and open to cross country runners and equestrians. The large pond along the Cherry Blossom Trail and the diversity of vegetation and insects attract many species of birds and thus bird watchers. Bluebird boxes can also be found in the park. This Plan recommends that these trails be nominated for inclusion on the Virginia Birding and Wildlife Trail (4.2.4).

In October 2017, a conceptual master plan for the Greenfield Historical Preservation Area was presented to the public. The area is located within the Botetourt Center at Greenfield, adjacent to existing trailhead parking and US 220. The concepts presented call for the expansion of the existing trail network with the addition of interpretive walking paths that would guide visitors through the history of the area and its inhabitants. In 2017 some of the recreational trails were temporarily closed during construction of new businesses.



Figure 4-7: Greenfield: Map of Trails at Botetourt Center and Greenfield Park

4.2.22. Hanging Rock Battlefield Trail, Map #22, Category 2

Description

Hanging Rock Battlefield Trail is the only existing rail-trail project in the Roanoke Valley. It is a portion of Mason Creek Greenway, 1.7 miles long, along a railbed donated by Norfolk and Southern. The project was initiated by the Hanging Rock Battlefield and Railway Preservation Foundation, supported by the City of Salem and Roanoke County. The railroad right-of-way was donated to the Foundation and then from it to the localities. Features include the Hanging Rock, Mason Creek, Buzzards Roost, and Route 311 scenic byway.

This joint project between the City of Salem and Roanoke County opened in 1999. Facilities included a northern parking lot with historic information and exhibits, shared parking facilities at the Orange Market and at the southern terminus of the trail, numerous interpretive signs about the Battle of Hanging Rock and the railroad corridor, bike racks, a renovated trestle bridge, and wildflower plantings along the trail. Since the 2007 Plan, Roanoke County has completed the bridge across Mason Creek, wetland plantings, and a separate parking area at the Orange Market. The greenway is listed on Virginia's Civil War Trails map of the Shenandoah Valley and on the western Virginia Birding and Wildlife Trail Guide.

Status

Use of this greenway has increased steadily. In 2013 Parkway Brewing Company opened a facility next to the trail. Parkway's popularity has encouraged use of the trail, and Parkway has been a sponsor for many years of the annual fundraising race, Gallop for the Greenways.

Salem has designed the extension of Hanging Rock from its southern terminus to East Main Street, with construction expected in 2019. At East Main the trail will connect to other proposed and funded sections of Mason Creek Greenway (See Figure 4-10.). On the northern end, the trail will connect to the newly proposed Hinchee Trail, Section 4.2.24, to provide a direct link to Carvins Cove.

Benefits

This greenway has been an attraction for tourists, particularly those interested in the Civil War. The Civil War Roundtable at Virginia Tech often sponsors field trips to this site, which is the closest battlefield to Blacksburg. With easy access to Interstate 81, tourists may be introduced to the Valley's greenway network at this trail.

Challenges

The cinder surface of this trail is subject to erosion during heavy stormwater events. Because the facilities are almost 20 years old, the signs and bollards need maintenance or replacement. The surface itself needs more frequent rolling and compaction. There is an opportunity to expand interpretive facilities along the trail by renovation of the coal tippie, but it is not owned by the County and such a renovation is unfunded at this time.

Next Steps

Salem expects to begin construction of the extension to East Main Street in 2019.

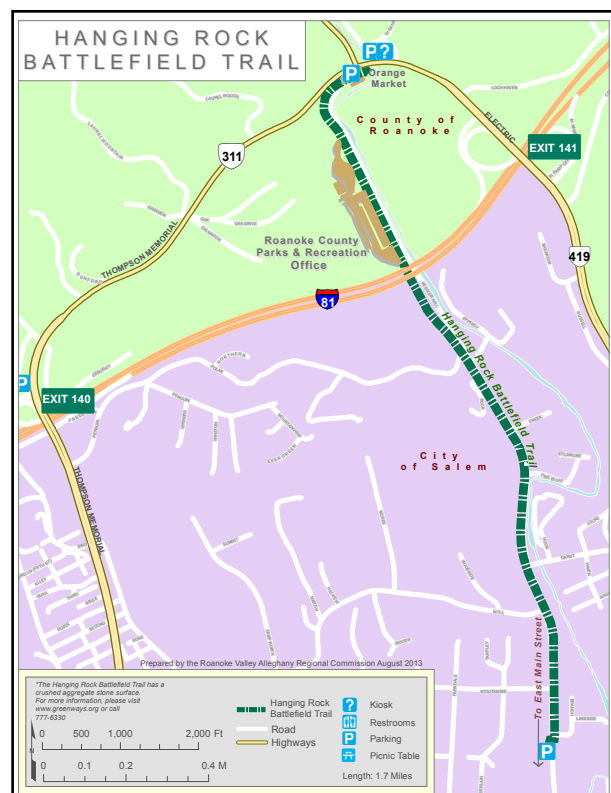


Figure 4-8: Hanging Rock Battlefield Trail Map

4.2.23. Havens Wildlife Management Area Trails, Map #23, Category 5

Havens Wildlife Management Area (WMA), covering 7,190 acres, is located in northwest Roanoke County and managed by Virginia Department of Game and Inland Fisheries. Havens encompasses most of Fort Lewis Mountain and is generally steep and inaccessible terrain except to the hardest hunter or nature enthusiast. Elevations range from 1,500 to 3,200 feet. In addition to hunting, Havens offers visitors the opportunity to hike, view wildlife and wild flowers, and pursue other outdoor interests. The WMA is an important connection between Carvins Cove and the western part of Roanoke County and its trails could be a component of the proposed Perimeter Trail (4.2.36).

Havens has two primary public access points:

- Carroll's Access Road from Wildwood Road; parking here is not always open.
- Bradshaw Road, VA 622, where there is a small parking lot.

In addition, there is access to the various communication towers on the mountain via Forest Acre Road, which is gated. Public access on this road would significantly increase the opportunities for use of these trails.

Additional information is available from the [Department of Game and Inland Fisheries](#).

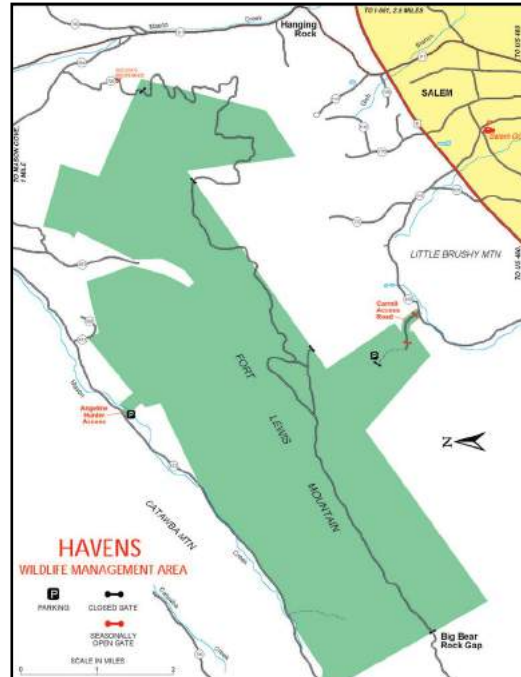
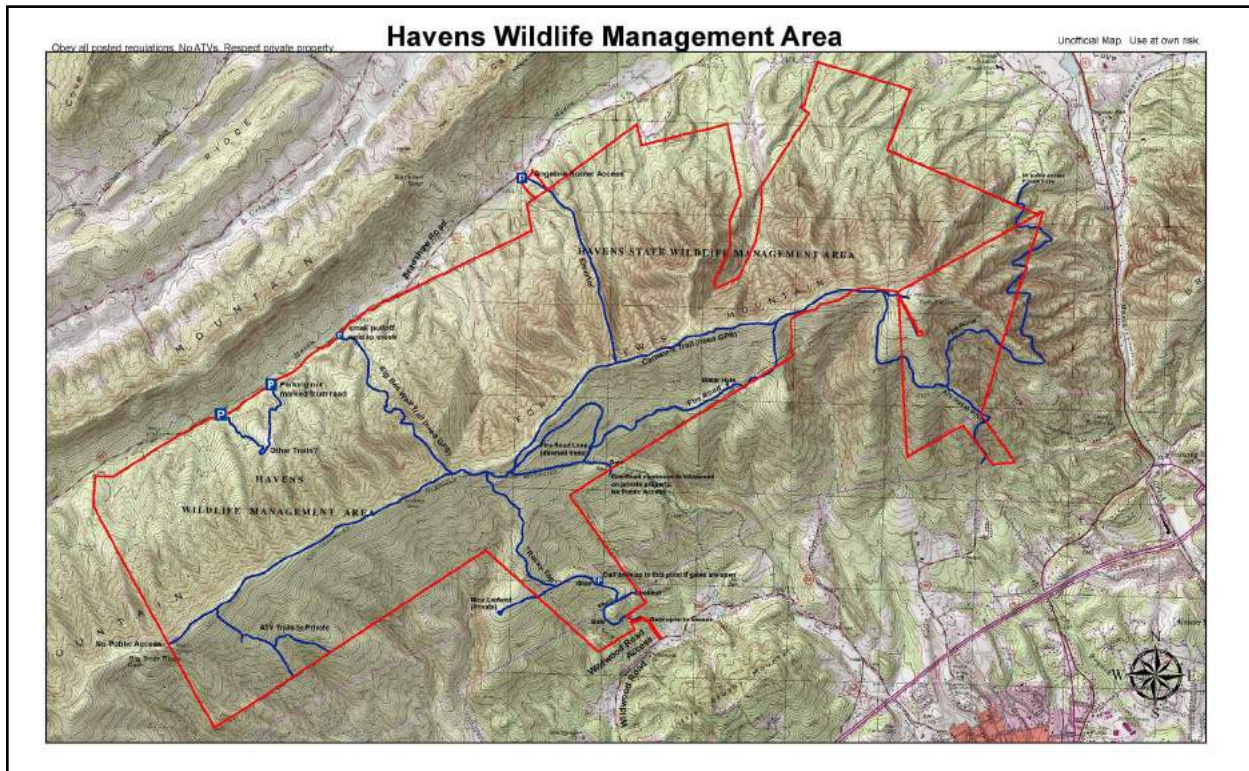


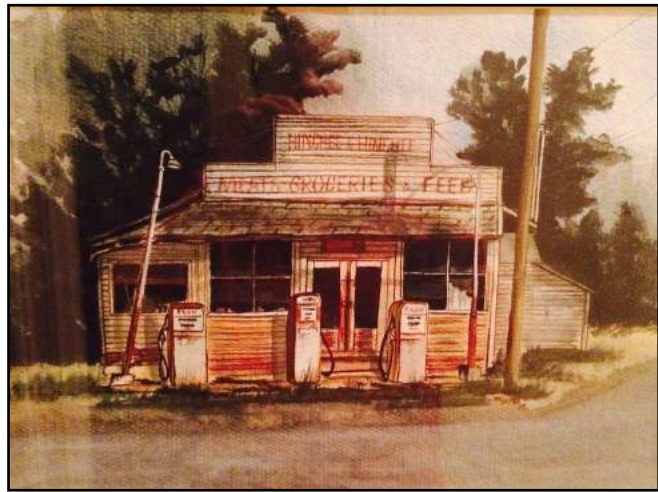
Figure 4-9: Havens Wildlife Management Area Map



Trail users have made unofficial maps to show trails at Havens WMA.

4.2.24. Hinchee Trail, Map #24, Category 3

Planning for this trail began with the 2007 Plan and became more specific in the Trail Management Plan for Carvins Cove, approved by Roanoke City Council in 2010. This connection is described as “a major connector to the valley greenway network” and recognizes the opportunity to tie the Carvins Cove Trail Network to the Hanging Rock Battlefield Trail and thus the greenway network. Brushy Mountain Fire Road, an existing single lane, unsurfaced road with ditches, is this connection, running from Timberview Road at Hanging Rock to Happy Valley Trail at the Carvins Cove gate, a distance of over 12 miles. While ten miles of the road are on the City’s Carvins Cove property, two miles have been in the Hinchee family for many decades. When the land passed to a younger generation through trusts, the owners approached the Greenway Coordinator with willingness to protect the land and allow the greenway linkage. In 2017 Pathfinders for Greenways purchased 35 acres and ½ interest in the 200-acre property, with an agreement to donate it to Roanoke County in 2019. Survey and additional rights-of-way may be needed on the road. The property will be managed by Roanoke County Department of Parks, Recreation and Tourism.



The Hinchee store was a busy general store prior to construction of Rt. 311.

4.2.25. James River Greenway, Map #25, Category 4

The James River has historically been a major transportation corridor and there have been many efforts to make the river completely navigable through addition of locks and other navigation aids. In 2009 the Virginia Department of Conservation and Recreation designated statewide trunk line trails, including a conceptual James River Heritage Trail that could basically parallel the Upper James River Water Trail. The Town of Buchanan is looking at options for initiating this greenway with a trail on park properties within the Town.

4.2.26. Jefferson National Forest Trails, Map #26, Category 5

The Jefferson National Forest includes 690,000 acres of woodlands between the James River and southwest Virginia. It is managed by the U. S. Forest Service for multiple uses, including recreation, timber, wildlife, water, and minerals. The Jefferson is now administered jointly with the George Washington National Forest, which covers the Forest Service lands in the north western part of the state from the James River to the Potomac River.

The U. S. Forest Service is one of the experts nationally in construction and management of natural surface trails for hiking, horseback riding, mountain biking, and other trail uses. The addition of Botetourt County to the Greenway Commission significantly increases the number of Forest Service Trails in the service area. Table 4-3 provides information on the 139.8 miles of Forest Service trails in the jurisdictions which are members of the Greenway Commission. The National Forest provides existing trail destinations as well as important greenway connections for the Perimeter Trail, Appalachian Trail, and other trail loops. National Forest trails close to the Roanoke Valley include the North Mountain, Patterson Mountain, Arcadia/North Creek, and Glenwood Horse trails. Trails on the National Forest are under federal jurisdiction and management.



The National Forest has many miles of multi-use trails.

Table 4-3: U. S. Forest Service Trails within the Roanoke Valley Greenway Service Area

Trail Name	Segment	County	Forest Service District	Use	Surface	Mileage
Boy Scout Trail	Dragons Tooth Trail to AT	Roanoke	Eastern Divide	Hike	C	0.5
Catawba Valley Trail	Rt. 779 to North Mtn Trail	Botetourt	Eastern Divide	Hike and Bike	C	2.5
Craig Creek Campground Trail	Trail around peninsula	Botetourt	Eastern Divide	Hike and Bike	C	2.0
Dragons Tooth Trail	Rt. 311 parking to AT at saddle	Roanoke	Eastern Divide	Hike	C	1.2
Hoop Hole Trail	Upper and Lower Loop	Botetourt	Eastern Divide	Hike and Bike	C	9.0
Iron Ore Trail	Roaring Run to Hoop Hole	Botetourt	Eastern Divide	Hike and Bike	C	2.4
Kelly Trail	Price Mtn Tr to FS 184	Botetourt	Eastern Divide	Hike, Bike, Horse	C	1.3
Lee's Creek Horse Trail	FS 5061 to Stone Coal Creek Rd.	Botetourt	Eastern Divide	Hike, Bike, Horse	C	2.8
North Mountain Trail	Rt. 311 to Turkey Trail	Roanoke	Eastern Divide	Hike and Bike	C	6.5
North Mountain Trail	Turkey Trail to Stone Coal Gap	Botetourt	Eastern Divide	Hike and Bike	C	6.7
Patterson Mountain	Patterson Mountain Trail	Botetourt	Eastern Divide	Hike, Bike, Horse	C	6.0
Patterson Mountain	Tucker, Helms Loop, Elmore	Botetourt	Eastern Divide	Hike, Bike, Horse	C	5.1
Price Mountain	Rt. 606 to Patterson Creek Rd.	Botetourt	Eastern Divide	Hike, Bike, Horse	C	6.6
Roaring Run Trail	Trailhead to falls	Botetourt	Eastern Divide	Hike	C	1.5
Sulphur Ridge Trail	Rt. 606 to Price Mtn Trail	Botetourt	Eastern Divide	Hike, Bike, Horse	C	3.3
Apple Orchard Falls	North Creek Rd. Trailhead to BR Parkway	Botetourt	Glenwood/ Pedlar	Hike	C	3.3
Buchanan Trail	VA 43 to Cove Mtn. Trail	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	2.5
Cornelius Creek Trail	Appalachian Trail to North Creek Rd.	Botetourt	Glenwood/ Pedlar	Hike	C	2.9
Cornelius Creek Spur Trail	FS 812 to Cornelius Creek Trail	Botetourt	Glenwood/ Pedlar	Hike	C	2.8
Cove Mountain Trail	Rt. 622 to Glenwood Horse Trail	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	1.5
Curry Creek Trail	AT to Rt. 640	Botetourt	Glenwood/ Pedlar	Hike	C	0.7
Glenwood Horse Trail	Multiple	Botetourt	Glenwood/ Pedlar	Hike, Bike, Horse	B/C	29.2
Glenwood Horse Trail Alternate	Multiple	Botetourt	Glenwood/ Pedlar	Hike, Bike, Horse	B/C	7.7
Hammond Hollow Trail	AT to FS 634	Botetourt	Glenwood/ Pedlar	Hike	C	1.8
Little Cove Trail	AT to Rt. 614	Botetourt	Glenwood/ Pedlar	Hike from FS 3004 to AT; Hike and Bike from FS 3004 to 614	C	2.8
Salt Pond Road	Curry Gap on BRP to Rt. 711	Botetourt	Glenwood/ Pedlar	Hike, Bike, Horse	B	4.7
Spec Mines Trail	BR Parkway to Glenwood Horse Trail Alt.	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	2.8
Sprouts Run	Solitude Road to FS 812	Botetourt	Glenwood/ Pedlar	Hike	C	3.4
Whitetail Trail	Long and short loops	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	2.6
Wildcat Mountain Trail	Loop in Cave Mtn. Lake Rec. Area	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	4.0
Wilson Mountain Trail	Rt. 622 to Skillern Mtn. Road	Botetourt	Glenwood/ Pedlar	Hike and Bike	C	3.6
Anthony Knob Trail	Lollipop from Longdale Picnic Area to Blue Suck Trail	Botetourt	James River	Hike, Bike, Horse	C	4.7
Blue Suck Trail	Longdale Furnace Picnic Area to Anthony Knob Trail	Botetourt	James River	Hike, Bike, Horse	C	1.4
B = Crushed aggregate stone or wood chips; C = Natural surface, wood chips, stone, or grass					Total Miles	139.8

4.2.27. Lick Run Greenway, Map #27, Category 2

Description

Lick Run is a tributary of Tinker Creek, starting in north Roanoke County and running to downtown Roanoke. The creek has water year round and is one of the major drainages in the valley, contributing to flooding downtown during heavy rains. The 1928 Comprehensive Plan for Roanoke depicted a green corridor along this creek, thus recognizing its importance to the green infrastructure of the valley. Lick Run Greenway provides a direct connection between downtown Roanoke and the Valley View business district.

Status

Construction of Lick Run Greenway from Valley View Extension to downtown was completed in phases between 1999 and 2006. Within the downtown area, the original route was designed to go to the Visitor Center at O. Winston Link, but was later moved to take advantage of the Martin Luther King bridge. Now, with the completion of the Amtrak Platform, the downtown alignment is being returned to the original alignment, providing a connection to the Visitor Center, Hotel Roanoke, and the Market Street glass bridge with its popular view of the trains below.

Planning for Lick Run Greenway sections beyond Valley View was completed in 2009, with the [Lick Run Greenway Phase III Feasibility Study](#) of routing options. In 2013 the Evans Spring Area Plan was completed, and residents insisted that the greenway be included in any new development near Fairland Lake. In 2014 a half mile section was built in conjunction with development of Countryside Park, as well as a one mile fitness trail. In 2016 a new bridge for the greenway was built over I-581 as part of the Valley View exit reconfiguration. In 2018 the greenway was provided a separated grade crossing at 10th Street as part of the reconstruction of the road. Amenities along the greenway include fitness stations, bike fix-it equipment, interpretive signs, and the bridge connecting to Norris Drive as a neighborhood connection.

Benefits

Lick Run Greenway is a crucial greenway in terms of transportation from downtown Roanoke to northern parts of the valley. It provides a free exercise and recreation facility in a section of the City which has historically been underserved. It also is important in terms of green infrastructure. Protection of riparian buffers along this perennial stream and its many tributaries such as Cedar Creek helps reduce runoff and thus flooding in downtown. The wooded linear trail linking multiple parks provides a beautiful setting with unusual habitat for an urban area.

Challenges

The Feasibility Study for Phase III does define routing options as far as to Peters Creek Road. Northside High School, Green Ridge Recreation Center, Valley Pointe, the proposed Wood Haven Business Center, and Roanoke-Blacksburg Regional Airport are potential destinations for this greenway if it were extended, but no plans for these phases have been developed. There are unique opportunities for inclusion of the greenway during development of properties currently in open space and for modification of existing



Lick Run Greenway provides a woodland trail with exceptional connections with nature.



When Valley View interchange over I-581 was rebuilt, a separate bridge was provided for Lick Run Greenway.

road spaces to include on-road connectors. There is also an opportunity to develop greenways on branches of Lick Run as part of stormwater management projects in downtown.

Next Steps

The City of Roanoke is exploring options for extending Lick Run from Countryside Park to Peters Creek Road near Northside High School. Roanoke County should develop a plan for the greenway from Peters Creek Road to Wood Haven Road and within the new business park. The City of Roanoke and Roanoke County should continue to take advantage of opportunities to provide on-road connections and to develop off-road sections in conjunction with other developments.

4.2.28. Long Ridge Trail, Map #28, Category 4

Long Ridge connects Poor Mountain Preserve, managed by the Virginia Division of Natural Heritage, to Happy Hollow Gardens, managed by Roanoke County as a park. The ridge is undeveloped at this time and provides a unique opportunity for a woodland trail connecting western Roanoke County to southwest County.

4.2.29. Mason Creek Greenway, Map #29, Category 2

Description

Mason Creek begins in the Masons Cove area of Roanoke County and runs into the Roanoke River across from the Cook Drive Industrial Park in Salem. This watershed has significant drainage, providing brief paddling opportunities after substantial rains. Hanging Rock Battlefield Trail is a portion of Mason Creek Greenway. Upstream from Hanging Rock the greenway is in Roanoke County and could be extended to provide connections to Carvins Cove Road, Masons Cove, and thus over the mountain to Catawba Valley and Catawba Hospital. Downstream from Hanging Rock Trail, the creek is in Salem. It parallels Kessler Mill Road to Main Street, flows behind Lakeside Shopping center, under Rt. 419, past the General Electric plant and Burton Center for Arts and Technology, to Roanoke River near Apperson Drive.

Status

In 2004 this greenway was awarded funding through the Scenic Byway portion of the federal Omnibus bill. This funding was used in 2013 to build the first mile of the greenway near General Electric, from Roanoke Boulevard to Salem Turnpike. Additional funding has been obtained to provide the connection from Salem Turnpike to East Main Street, where it would tie to the extension of Hanging Rock Battlefield Trail.

On the northern end of Hanging Rock Battlefield Trail, a half mile of Mason Creek has recently been purchased by Pathfinders for Greenways as part of the Hinchee Trail project (Section 4.4.24). The bridge across the creek on Dutch Oven Road has been closed by VDOT, making Dutch Oven a potential location for the greenway. Roanoke County completed an engineering study of the bridge to explore options for rehabilitation as a trail bridge. Beyond that bridge, there is some off-road VDOT right of way that was once Rt. 311.

Benefits

Completion of this greenway from Hanging Rock Battlefield Trail to Roanoke River Greenway will provide an important north-south connection from the river to Carvins Cove, Havens Wildlife Management Area, the Jefferson National Forest, the Appalachian Trail, and North County neighborhoods. There are numerous businesses and commercial areas along the route, and thus the greenway could be important for access to these employment areas, as a health and fitness facility for these businesses, and as a quality of life attraction that facilitates retention of a talented work force. Because of the linkage to Hanging Rock Battlefield Trail, this greenway has



Mason Creek Greenway is used daily by GE employees.

great potential as a destination site for tourists, who might then bike or run on to Roanoke River Greenway.

Challenges

Downstream from Roanoke Boulevard there are railroad crossings that could complicate an off-road alignment parallel to the creek. Other options might include an off-road route behind the Veterans Administration Hospital or an on-road route along the road to Peters Creek Extension, where sidewalks and a bike lane tie to Roanoke River Greenway.

On the upstream section there is some right-of-way available, but not yet a continuous route.

Next Steps

The City of Salem should continue with construction of the section from East Main Street to Salem Turnpike and with construction of the Hanging Rock extension to East Main. Downstream from Roanoke Boulevard, Salem should continue exploring all routing options to provide a connection to Roanoke River Greenway.



Hanging Rock is popular for running and walking because its cinder surface is softer than asphalt.

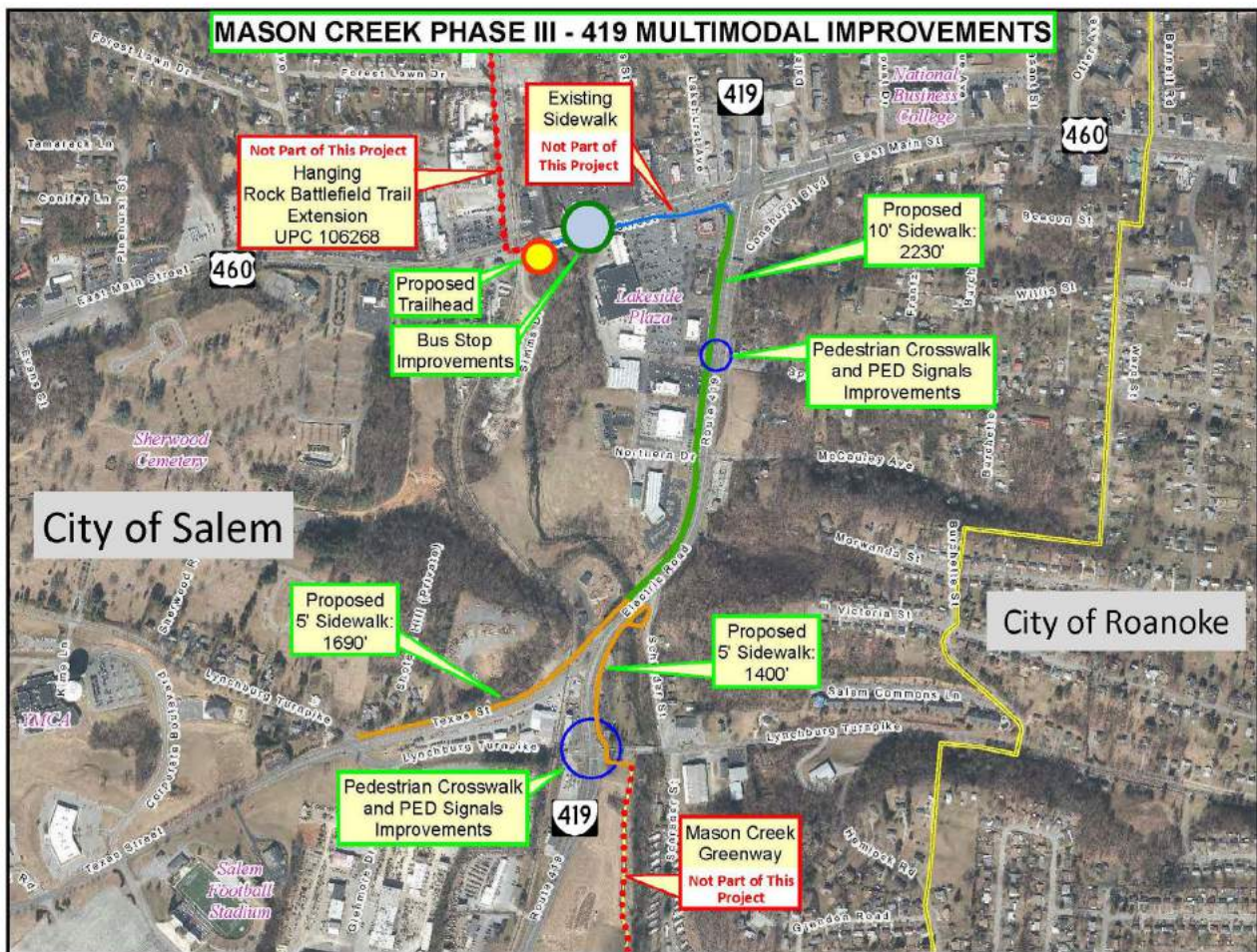


Figure 4-10: Mason Creek Greenway Phase III: Proposed linkages between existing sections of Hanging Rock Battlefield Trail and Mason Creek Greenway

4.2.30. Masons Cove Greenway, Map #30, Category 4

The Masons Cove Greenway would connect Mason Creek Greenway to Catawba Greenway utilizing an old railroad bed. Bicyclists could use this route to get up the mountain and connect to Rt. 311 to reach U. S. Bicycle Route 76.

4.2.31. Mill Mountain Greenway, Map #31, Category 5

Description

The Mill Mountain Greenway was selected in 1996 to be the Roanoke Valley's pilot project. The original plans envisioned the greenway connecting from the market downtown to Mill Mountain Park and out to Explore Park via the Blue Ridge Parkway. Later the project was limited to the route from the market to the Star and thus this greenway is considered complete.

Status

The City of Roanoke has built on and off-road sections of this greenway, as right of way has allowed. The greenway officially connects to Lick Run Greenway at "ground zero" by the Wells Fargo Tower; it then is on existing streets and sidewalks to Elmwood Park, where it is off-road; it parallels Williamson Road through the railroad district and crosses Walnut Avenue bridge on sidewalks. Originally the route followed the Roanoke River to Piedmont Park and came up Laurel Street, but, when that section of Roanoke River Greenway was built in 2007, Mill Mountain Greenway moved to a more direct route straight up Walnut Avenue. Bicyclists share the road, and pedestrians follow sidewalks and streets to reach the rugged terrain of Mill Mountain, following historic Prospect Road, the old road up the mountain. The greenway passes under the Mill Mountain Tollbooth and utilizes the unique switchback bridge. The greenway reaches the top of the mountain at the Discovery Center, where park pathways link to both the Mill Mountain Star and the trail system of the mountain. The greenway opened in 2003 in a joint dedication with the western phase of the Virginia Birding and Wildlife Trail.



Pathfinders for Greenways helped raise private funds for restoration of the toll booth in 2010.

Benefits

This greenway provides an important connection from downtown to the northern section of the Riverside Centre for Research and Technology, Roanoke River Greenway, Mill Mountain Park and Star, and the Blue Ridge Parkway.

Challenges

Because of its urban location, wayfinding for this greenway, off-road and on-road, has been challenging. Clear signage for users, as well as for adjacent motorists, is important. Further wayfinding identification should be considered to create fluid connectivity between Mill Mountain and Lick Run Greenways, through downtown Roanoke, and up Mill Mountain. Additional and separated space for bicyclists in some on-road sections is desired.

Next Steps

The City Parks and Recreation Department will continue to coordinate with other departments and with Downtown Roanoke, Inc. for wayfinding improvements for both greenway users and vehicles wishing to reach Mill Mountain. When the renovation of the Virginian Station was funded, a bathroom for greenway users was included in the project; the City will encourage any operator to keep those restrooms open to the public during normal business hours. Also, improvements along Walnut Avenue to identify more space for greenway users would improve the connectivity of this route.

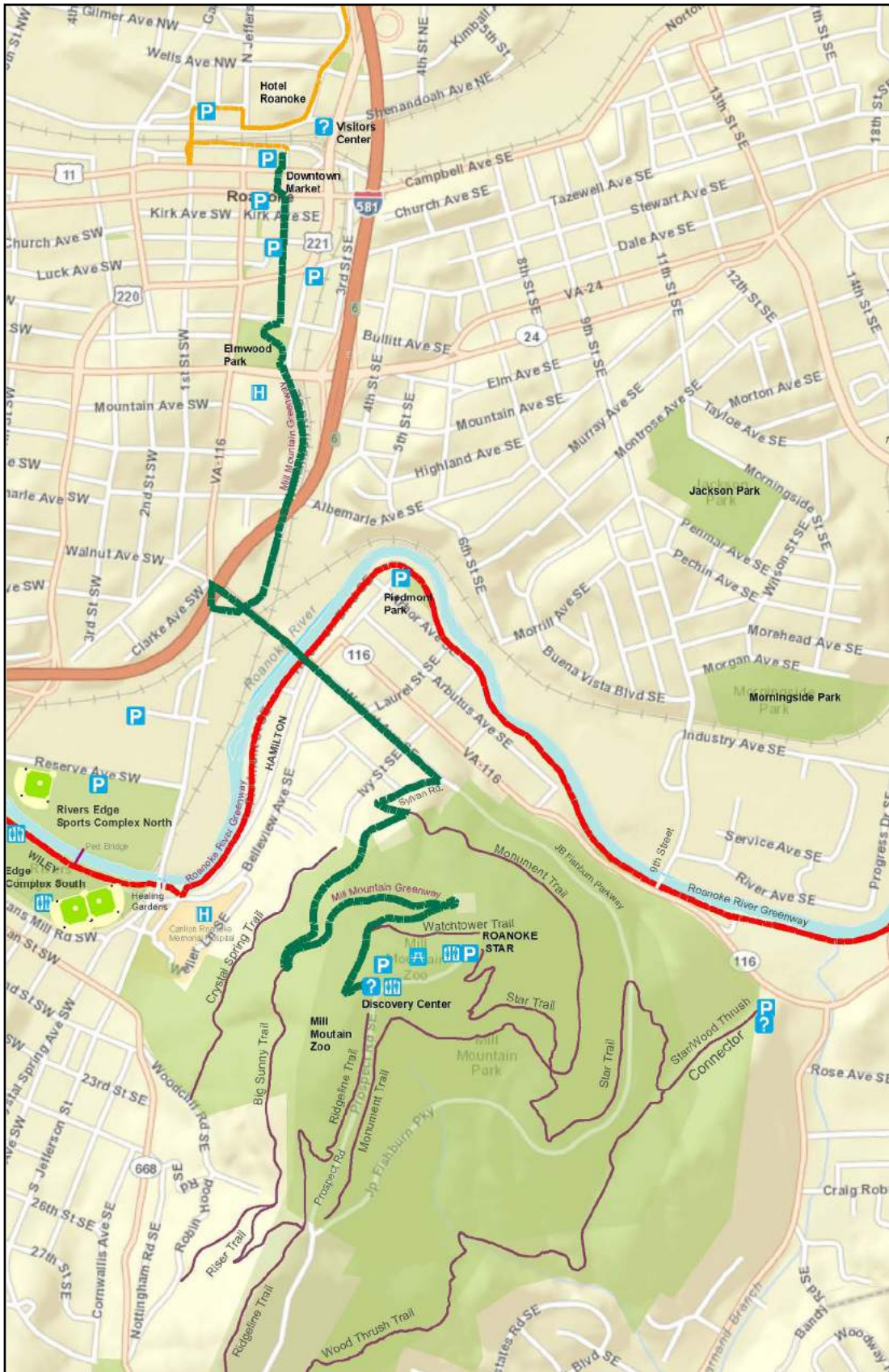


Figure 4-11: Mill Mountain Greenway Map, a connection from downtown to Mill Mountain Star

4.2.32. Mill Mountain Park Trails, Map #32, Category 5

Description

Mill Mountain Park is a 600-acre park managed by Roanoke Parks and Recreation Department. It has historically attracted recreational use and many of the trails are shown on 50-year old maps.

Status

In 2006 Roanoke City Council adopted the [Mill Mountain Park Management Plan](#), developed by the Roanoke Parks and Recreation Department. This plan included the Mill Mountain Trails Plan, developed by Parks staff, Pathfinders for Greenways volunteers, and the Greenway Coordinator. The Trail Plan included inventory and assessment of all trails on the mountain, proposed trails for completion of a network, and management of trails in the park. A few trails on the mountain are open to hikers only, but most are available also for mountain biking and equestrian use. The trail network connects the park to Chestnut Ridge Loop Trail, managed by the Blue Ridge Parkway, to Fern Park and Piedmont Park, and to Riverland, South Roanoke, and Garden City neighborhoods. Pathfinders for Greenways helped build many of the trails in the Trail Plan and the trail specialist, hired in 2013, has recruited many additional volunteers. The trails proposed in the Trail Plan were all completed by 2015. New maps and kiosks were installed in 2017. Users have requested additional trails.



The Mid-Week Crew of Pathfinders for Greenways has built many miles of trail on Mill Mountain.

Benefits

The Mill Mountain Park trails provide a wonderful, wooded network of natural surface trails within walking distance of numerous City neighborhoods. These trails also provide an attraction for tourists coming from the Blue Ridge Parkway.

Challenges

Park staff face the typical challenges of managing a wooded park and trail network in an urban area. These challenges include restricting illegal uses, such as all-terrain vehicles, camping, and fires, managing user conflicts, educating inexperienced users, managing resources such as control of invasive species, protecting resources like trees and wildlife, and maintaining facilities.

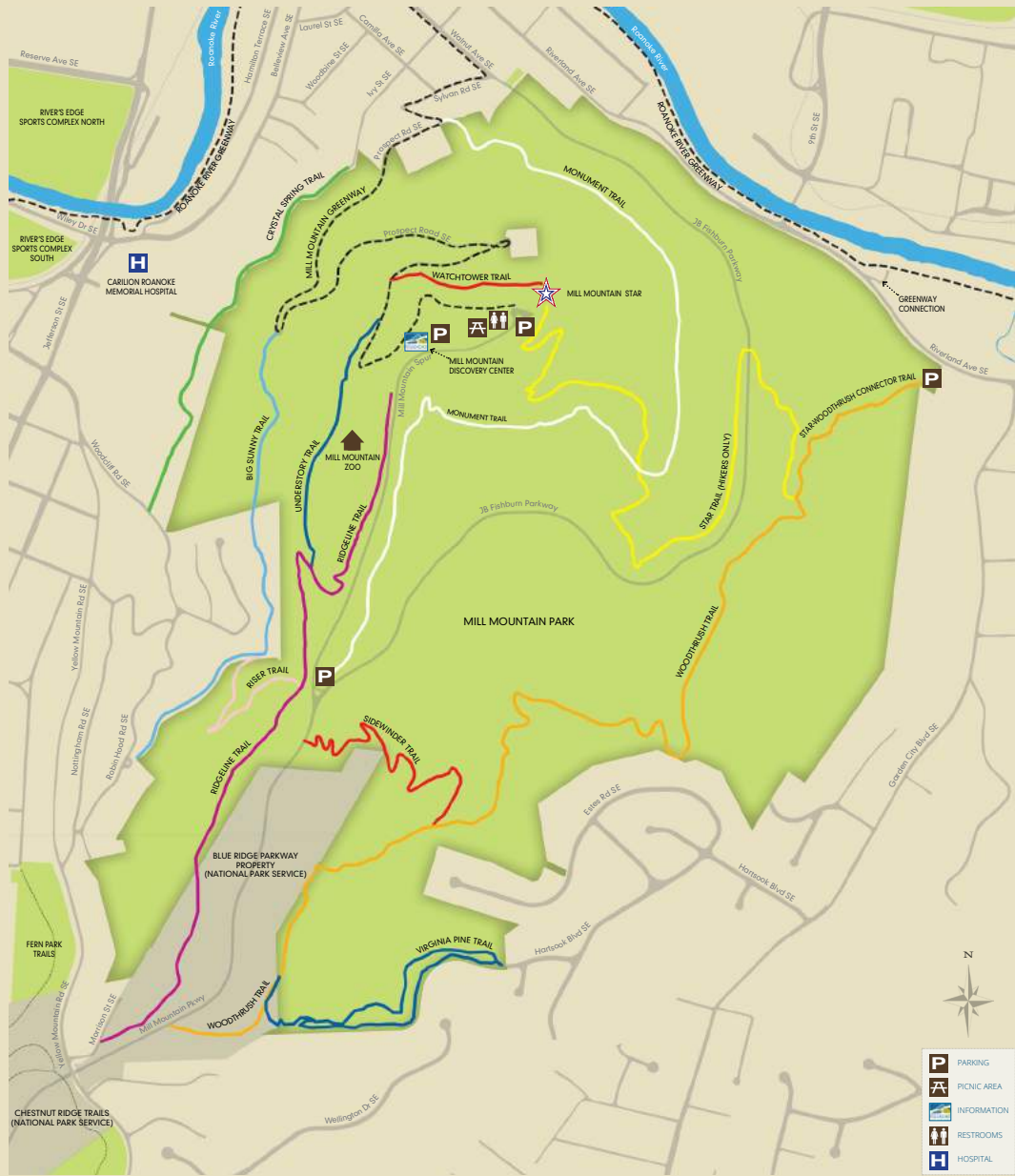
Next Steps

Neighborhood connections are needed from the Riverland Road Trailhead to Garden City Greenway and Roanoke River Greenway. Park staff should continue to work with volunteers on trail maintenance, construction and wayfinding. At this time no new natural surface trails are planned on Mill Mountain, but an update to the trail plan is scheduled for 2019. There are opportunities for development of trails nearby on the Roanoke River flood bench.



Kiosks at trailheads provide maps and information about the Mill Mountain trails.

MILL MOUNTAIN PARK TRAIL MAP



BLAZE	TRAIL	MILES	DIFFICULTY	USAGE	ELEV. CHANGE
Blue	Big Sunny	0.73	More Difficult	Multi-Use	241 ft
Green	Crystal Spring	0.61	Easy	No Horses	104 ft
White	Monument	1.55	More Difficult	Multi-Use	553 ft
Pink	Ridgeline*	1.26	More Difficult	Multi-Use	416 ft
Light Blue	Riser	0.31	More Difficult	Multi-Use	137 ft
Red	Sidewinder	0.53	More Difficult	Multi-Use	224 ft
Yellow	Star	1.38	More Difficult	Hikers Only	639 ft
Orange	Star- Woodthrush Connector	0.24	More Difficult	Multi-Use	143 ft
Dark Blue	Understory	0.38	Most Difficult	Multi-Use	109 ft
Light Blue	Virginia Pine	0.75	More Difficult	Multi-Use	175 ft
Red	Watchtower	0.22	Easy	Hikers Only	111 ft
Orange	Woodthrush*	1.90	More Difficult	Multi-Use	373 ft

*Trails lie partially on National Park Service property and may have different rules and usage

TRAIL ETIQUETTE

- Please share the trails and have respect for others
- Please stay on the trails to minimize damage
- Keep your pet on a leash and pick up after your pet
- Camping and motorized vehicles are prohibited
- Kindly pack out all trash

CONTACT INFORMATION

To report trail conditions or for more information about the City of Roanoke's trails and trail programming, please call 540-853-5867. For more information about Mill Mountain and nature programs, please visit the Discovery Center (540-853-1236) or find upcoming events and activities at: www.playroanoke.com

EMERGENCIES

In the event of an emergency, please call 911.

ROANOKE
PARKS AND RECREATION

This map is intended for the private use of our trail users. Maps may not be reproduced, published, uploaded, posted, transmitted, distributed, shared, copied, or publicly displayed without the written permission of Roanoke Parks and Recreation. The City shall not be held liable for the improper or incorrect use of the information described or herein.
This map data is current as of March, 2017.

Figure 4-12: Mill Mountain Park Trail Map

4.2.33. Mudlick Creek Greenway, Map #33, Category 4

Mudlick Creek flows through many neighborhoods in Roanoke County and the City of Roanoke, generally connecting Hidden Valley High School (HVHS), Garst Mill Park, and the Deyerle Road area. The creek is subject to flash flooding after hard rains, and in 2002 Roanoke County installed a stormwater detention pond as part of the High School construction.

The first section of this greenway opened in Garst Mill Park in 1997, built in conjunction with a sewer line upgrade. The ½ mile paved trail is heavily used by neighbors and by other park visitors. In addition to those exercising, frequent users include families with children learning to ride bikes, groups with wheelchairs and mobility impairments, neighbors walking dogs, and folks with mobility impairments. Since the trail was built, many amenities have been installed, including trees, benches made from recycled materials, pooper scooper bag dispensers, and memorials to Lee Eddy and Charlie Blankenship, early greenway supporters.

Extension of the trail is challenging because of the proximity of residences to the creek itself, but several easements have been secured. In 1999 an easement for the greenway near Route 419 was secured as a proffer with the McVitty Forest development. An easement downstream from the park, parallel to Garst Mill Road, was secured in 1999. The greenway has been included in development plans for HVHS, McVitty Forest, and McVitty Road. Connections to Cave Spring Middle School and Penn Forest Elementary have also been proposed in conjunction with Merriman Road improvements.



In 2015 a bench was installed in Garst Mill Park in honor of Charlie Blankenship, one of the founders of the greenway program.



Figure 4-13: Mudlick Creek Greenway at Garst Mill Park

4.2.34. Murray Run Greenway, Map #34, Category 3

Murray Run is a stream which starts near Green Valley School in Roanoke County, runs through a site known as the Old Jefferson Hills Golf Course, passes behind residential houses, and then enters Fishburn Park. From the park the stream goes under Brambleton Road, through a neighborhood, through Lakewood Park, behind more residences and then under Brandon Road to Roanoke River.

In 1998 the Greater Raleigh Court Civic League adopted this project and developed a plan which combined three routes suggested in the 1995 Conceptual Greenway Plan. The greenway has been built in stages, with much of the work by Pathfinders for Greenways and corporate volunteers. The trail has a natural surface in wooded areas and a cinder surface across school and park fields, with a dramatic 80' curved bridge built by volunteers at Fishburn Park. The sections of the greenway which have been built connect six schools and three parks: Patrick Henry High School, Roanoke Valley Governor's School, Raleigh Court School, James Madison Middle School, Fishburn Park Elementary, Virginia Western Community College, Shrine Hill Park, Woodlawn Park, and Fishburn Park. Fishburn Park includes an additional mile of natural surface trails which are used in conjunction with Murray Run to form loops. Other facilities along the route include the Virginia Western Arboretum, Blue Ridge Public Broadcasting Station, and the Gator Aquatic Center. Murray Run Greenway is the City's most natural greenway corridor, connecting forest fragments and parks.

Status

Roanoke Parks and Recreation Department completed [Murray Run Greenway Extension Feasibility Study](#) in 2010 to explore alternatives to connect upstream to Roanoke County and downstream to Roanoke River Greenway. Support for the upstream portion was heard frequently at Roanoke County public input meetings for the 419 Town Center Plan. Concerns about development on the Shenandoah Life property were heard at greenway meetings in 2017.

Next Steps

An extension of the greenway is possible from Colonial Avenue to Ogden Road, Tanglewood Mall, and Green Valley Elementary School. On the other end a connection to the Mudlick Creek corridor is proposed along Grandin Road. In addition, there could be connections along Brandon Road or Brambleton Avenue. The City should develop safer bicycle/pedestrian connections on these roads, provide bike/ped signalization at stoplights, work with developers to incorporate trails, and obtain easements on the Old Jefferson Hills Golf Course.

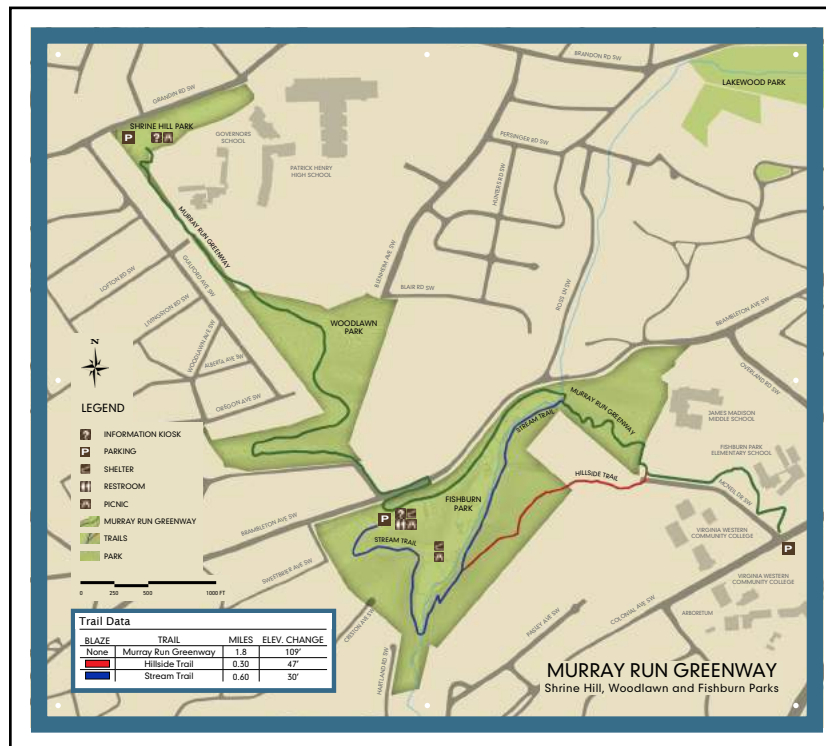


Figure 4-14: Murray Run Greenway and Fishburn Park Trails

4.2.35. National Forest Connections, Map # 35, Category 4

With the inclusion of Botetourt County, there are many miles of National Forest trails providing destination nodes for trail users. In most cases these trails are not accessible without a car, even if relatively close to communities. This route recognizes the need for such connections from communities such as Buchanan, Arcadia, Daleville, Cloverdale, and Eagle Rock. Any connections would require Forest Service approval contingent on assessment of location, environmental impacts, and sustainability.

4.2.36. Perimeter Trail, Map # 36, Category 4

The Perimeter Trail will be a multi-use trail, on and off-road, circling the Roanoke Valley and connecting existing public lands. Existing trail networks to be connected include Carvins Cove, Havens Wildlife Management Area, Green Hill Park, Spring Hollow, the Blue Ridge Parkway, Explore Park, and the Jefferson National Forest. This greenway would provide a long distance trail for hikers, equestrians, and mountain bikers.

4.2.37. Poor Mountain Trails, Map #37, Category 3

[Poor Mountain Preserve](#) is a 933-acre site managed by the Virginia Division of Natural Heritage (Department of Conservation and Recreation) to protect the world's largest population of the globally rare piratebush. This shrub is dependent on the opportunity to entwine its roots with those of Table Mountain pine or hemlock. A small parking lot provides access from Twelve O'clock Knob Road. Pathfinders' Mid-Week Crew has assisted the Division by building the Piratebush Loop, Overlook and Canyon Trails, with the Cascade Trail built under contract. Division plans call only for these four miles of trail, but additional trails within and beyond the Preserve could provide connections to Poor Mountain Road and Harborwood Roads.

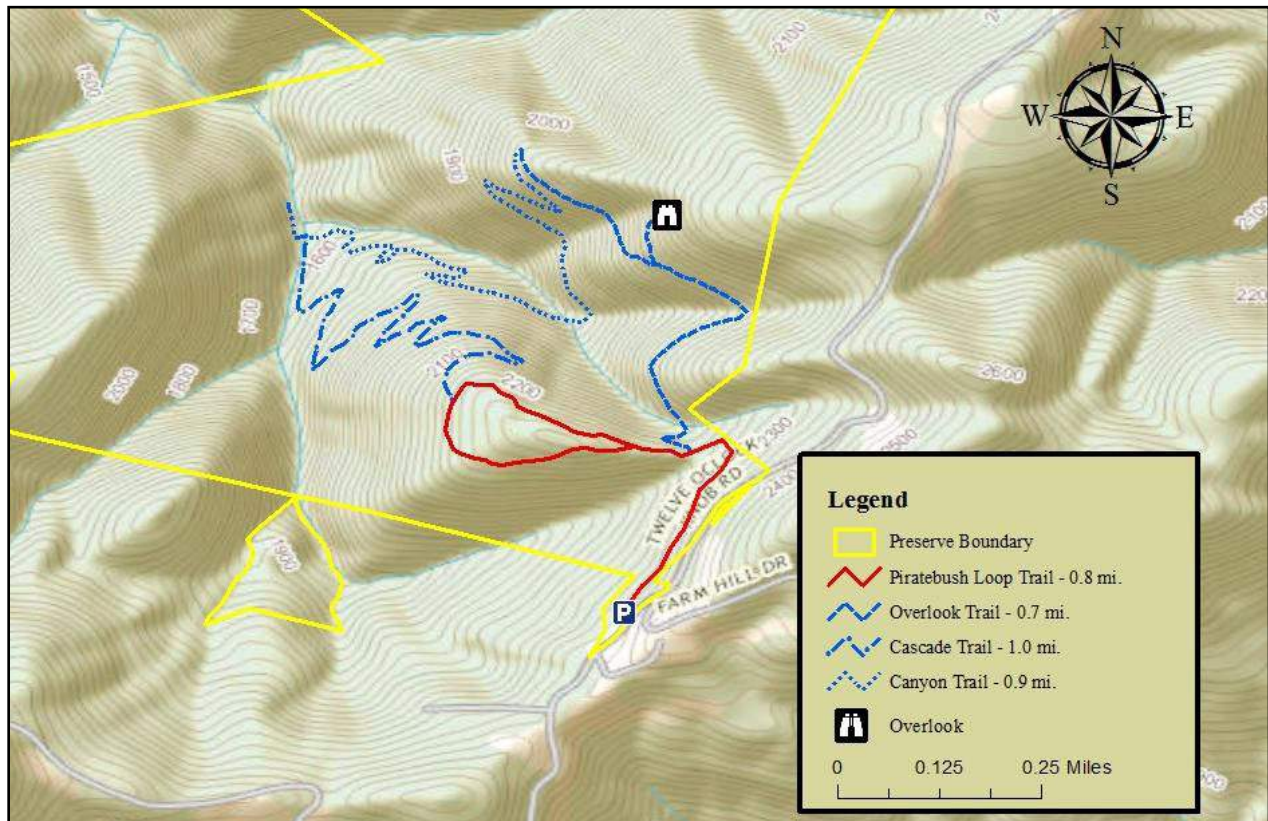


Figure 4-15: [Poor Mountain Preserve Trails](#)

4.2.38. Read Mountain Greenway, Map #38, Category 3

Read Mountain Greenway will be a connection from Tinker Creek Greenway at Mason Mill Park to Read Mountain Preserve in Roanoke County. With additional development and employment at the City of Roanoke's Centre for Industry and Technology (RCIT), demand has increased for connections to nearby trail opportunities. This greenway is projected to go from Tinker Creek Greenway to businesses at RCIT, then up to the CCC Trail at Roanoke County's Preserve. In 2018, City and County staff are working on a preliminary alignment, feasibility plan, and easements for this stretch of greenway.

4.2.39. Read Mountain Trails, Map #39, Category 3

Read Mountain lies between US 460 and Old Mountain Road and is undeveloped on its upper slopes. In 2000 a grassroots group called Read Mountain Alliance was formed to protect the mountain from ridge line development. The Alliance has worked with property owners to secure easements and to explore and build trails on the mountain, with assistance from Pathfinders' Mid-Week Crew. In November 2006 a developer donated 125 acres to Roanoke County to be part of a new park and in 2008 the Read Mountain Preserve was opened to the public as a County park. In addition to trails on the mountain within the Preserve, there is opportunity for a connection to Tinker Creek Greenway and RCIT, via the Read Mountain Greenway, and to Botetourt County and ultimately the Jefferson National Forest through new trails to the north.

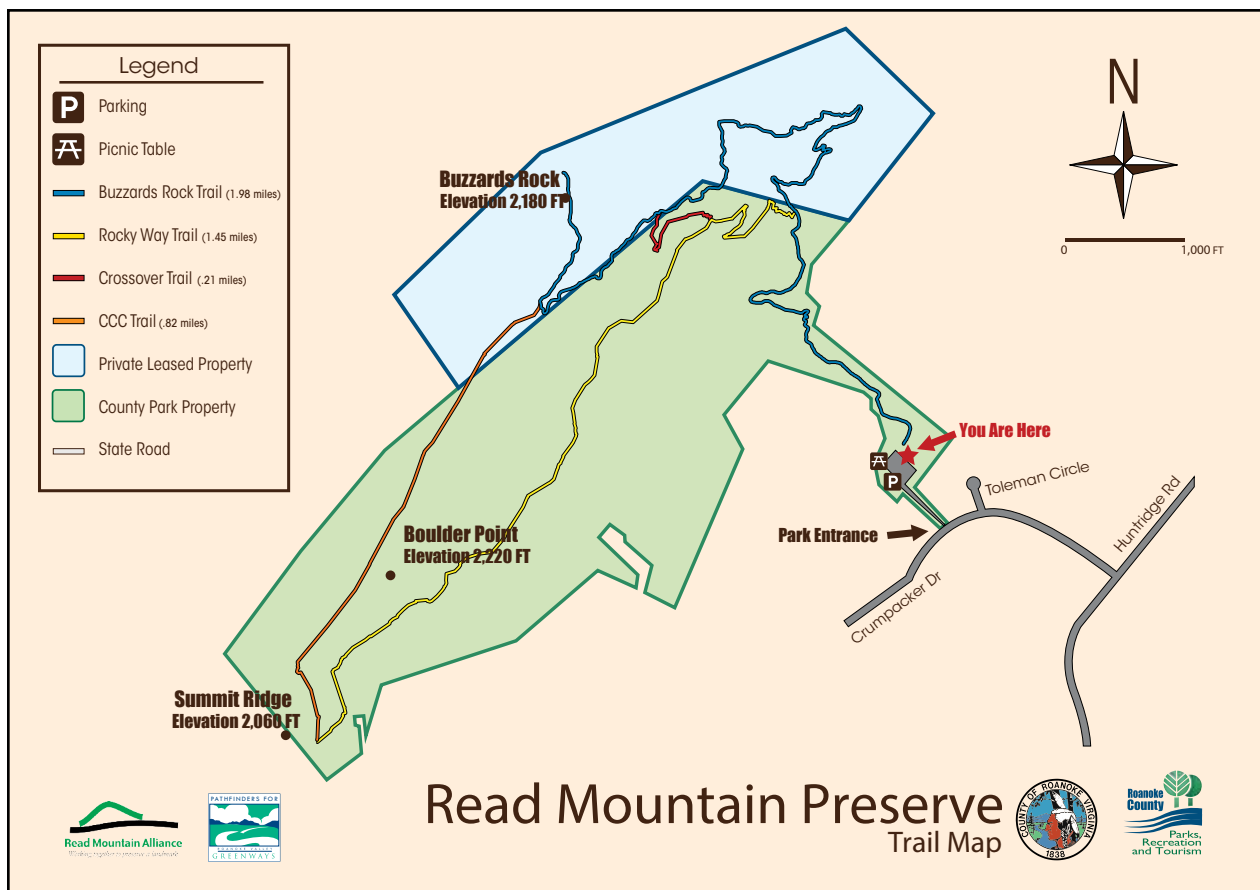


Figure 4-16: [Read Mountain Preserve Trails](#), all built by volunteers

4.2.40. Roanoke River Greenway, Map #40, Category 1

Description

The Roanoke River Greenway has always been considered the backbone of the regional greenway and trail network. This bicycle/pedestrian path, projected to be 31 miles, will be the major west-east greenway, making it possible to travel from western Roanoke County near Spring Hollow Reservoir through the City of Salem to the City of Roanoke, Town of Vinton, Blue Ridge Parkway and Explore Park. The greenway will provide linkages to neighborhoods, industrial facilities and business complexes, ten parks, three schools, two sport complexes, Cardinal Criminal Justice Academy, the Blue Ridge Parkway and Montgomery and Franklin Counties. It will be a continuous route for non-motorized transportation where none existed in 1997. Connections to streets with bike lanes and to Masons Creek, Murray Run, Mill Mountain, Lick Run, Tinker Creek, and Wolf Creek greenways will permit travel north and south.

Status

Since 2007, over ten miles of Roanoke River Greenway have been completed and opened, for a total mileage in 2017 of 13.7 miles. The status of the various sections is itemized below.

Table 4-4: Status of Roanoke River Greenway				
Section	Jurisdiction	Mileage	Status	Projected Construction
Montgomery County Line to Green Hill Park	Roanoke County	8-10	Conceptual alignment only.	Beyond 2020
Within Green Hill Park	Roanoke County	0.80	Completed. Opened 2008.	
Green Hill Park to West Riverside Park	Roanoke County & Salem	1.90	Engineering complete; environmental permitting underway; right-of-way needed	2019
Woodbridge Section	Salem	0.25	Completed. Opened 2011.	
West Riverside Park to Eddy Avenue	Salem	1.30	Opened 2013	
Eddy Avenue bridge	Salem	0.04	Under construction	2018
Eddy Ave. to Rotary Park	Salem	2.10	Built in sections, all opened by 2012.	
Rotary Park to Apperson Drive	Salem	0.60	Negotiating rights-of-way.	2019
Apperson to Barnhardt Creek	Salem	0.90	Scheduled for construction by Salem crews, starting spring 2018.	2018
Barnhardt Creek bridge at Salem/Roanoke City line	Salem & City of Roanoke	0.02	RSTP funded for FY 19-20.	2018-19
Barnhardt Creek to Aerial Way	City of Roanoke	1.00	Completed. Opened 2015	
Aerial Way to eastern Materials Yard	City of Roanoke	0.70	Construction began 2017.	2018
Materials Yard to Bridge Street	City of Roanoke	1.00	Right-of-way needed from Walker Foundry. Ready to go to construction.	2019-20
Bridge St. Bennington Trailhead	City of Roanoke	6.80	Built in sections, all opened by 2012.	
Bennington to eastern City line at Tinker Creek	City of Roanoke	1.25	Three quarters of a mile is on-road with a steep hill; relocation is needed.	
Roanoke City line to Blue Ridge Parkway western boundary	Roanoke County	2.70	Engineering completed. Right-of-way needed. Environmental permitting underway.	2019
Section under Blue Ridge Parkway	Roanoke County	0.30	TA Funded FY19-20.	2020
Blue Ridge Parkway across landfill to Explore Park border	Roanoke County	1.70	Funded. Engineering underway.	2019
Through Explore Park to Rutrough Road	Roanoke County	1.80	Recently awarded RSTP funds FY20-22.	2022

Funding

Roanoke River Greenway has benefited from large infusions of transportation funding since 2007, including monies from American Recovery and Reinvestment Act (Stimulus), Regional Surface Transportation Program (RSTP), House Bill 2, SmartScale, Federal Lands Access Program, Transportation Alternatives (TA), and Revenue Sharing. In addition, the Greenway Commission raised over a million dollars of private funds through the Bridge the Gap campaign. The localities continue to apply for grant funding to match local capital funds to finish the final sections.

Benefits

The Roanoke River Greenway has long been recognized in local, regional, and state plans as an important facility for the area. It is included in each locality's comprehensive plan, the regional greenway and open space plans, and the Virginia Outdoors Plan. The Roanoke River Greenway is a multi-faceted project. All sections include canoe launches, providing access to the river. The greenway also includes historic and environmental interpretive signage, landscaping, sculptures and art, mitigation of runoff into the river, and establishment of riparian buffers. This project provides transportation, safety, health, environmental, and economic benefits to the valley, thus improving total quality of life in the region. The trail is often used for races and fundraising walks and runs. Roanoke River Greenway is the foundation for the region's "Roanoke Outside" branding and has become a tourism destination supporting two outfitters adjacent to the trail. In addition, it has contributed to adjacent economic development such as the River House apartments, Green Goat restaurant, Wasena City Taproom, Underdog and Roanoke Mountain Adventures outfitters, River Rock Climbing Gym, and the Bridges apartments and entertainment center.



*Roanoke River Greenway bridges offer views of the river on family outings.
Photo by Rachel Kuehl*

Challenges

The challenges for construction have been acquisition of rights-of-way, proximity of the railroad to the river, flooding, topography, protection of endangered species, and funding. The localities have resolved most of these issues for the sections from Green Hill Park to Explore Park. The section from Bennington Trailhead to the Water Pollution Control Plant is on-road, with a very steep section on Underhill Street; Roanoke City would like to move this section off-road.

In the future, maintenance, capital funds for flooding repair, and user management will be the predominant issues. The localities will each address maintenance issues through their budgeting processes, utilize volunteers such as the Greenway Ambassadors and Pathfinders, and implement management techniques like striping and wayfinding as needed.



*Roanoke River Greenway at dawn.
Photo by Darrell Powledge*

Next Steps

Completion of the core urban sections of Roanoke River Greenway, from Green Hill Park to Back Creek at Explore Park, is strongly supported and is expected by 2023, as shown in Table 4-4 and Figure 4-17. The City, in coordination with Roanoke County, should pursue an off-road alignment from the 13th Street trailhead to the Water Pollution Control Plant, to eliminate the steep section on Underhill Avenue.

Roanoke River Greenway Status Map

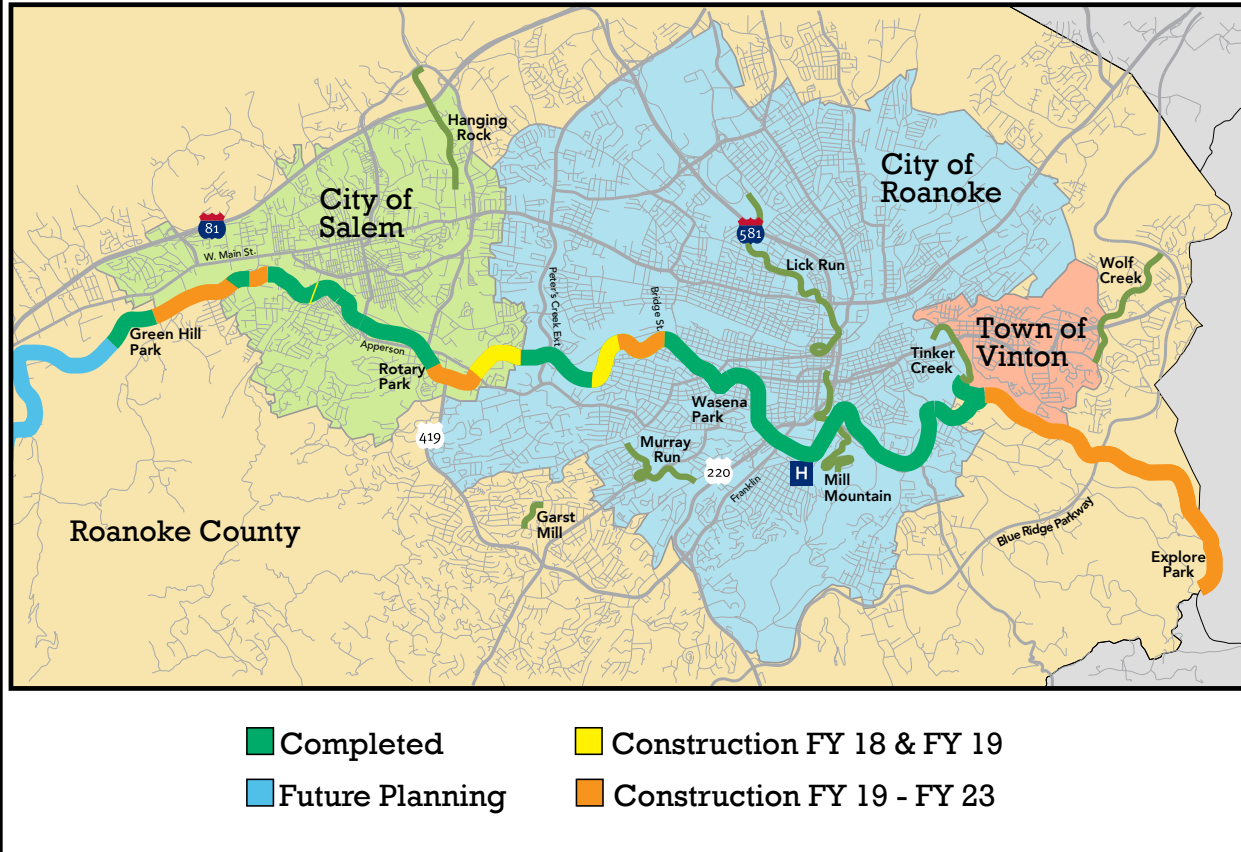


Figure 4-17: Roanoke River Greenway Status Map. Completion of Roanoke River Greenway is the highest priority.



A fisherman paddles alone below the bridge connecting Roanoke River Greenway to Tinker Creek Greenway.
Photo by Darrell Powledge

4.2.41. Roanoke River Greenway Extensions, Map #41, Category 4

This route is the extensions of Roanoke River Greenway from Explore Park to Smith Mountain Lake and from Spring Hollow Reservoir to the New River Valley. The Roanoke Valley's portion of this route may be only a bridge to Franklin County or a short connection to Montgomery County, but the route is included in both the Virginia Outdoors Plan and the Franklin County Trails Plan. The Montgomery County Bikeway/Walkway Plan includes a North Fork route, and the New River Planning District Commission is currently updating the regional greenway plan, which is expected to include a Roanoke River Greenway connection to New River.

4.2.42. Spring Hollow Trails, Map #42, Category 4

Spring Hollow is a major reservoir for the Roanoke Valley, now managed by the Western Virginia Water Authority. Adjacent lands are owned by Roanoke County, as is the adjacent Camp Roanoke. A master plan for the site completed in 1996 proposed numerous horse trails and other facilities, but these have not yet been developed. Spring Hollow is an important connection for the Perimeter Trail and a destination along Roanoke River Greenway.

4.2.43. Tinker Creek Greenway, Map #43, Category 2

Description

The Tinker Creek corridor is one of the most historic in the valley, dotted with mills, taverns, and historic buildings. The creek has its headwaters in Botetourt County and is fed by Carvin Creek, Lick Run, and Glade Creek. This is one of the few urban trout streams in the state and connects a diversity of urban, suburban, industrial and rural landscapes.

Status

For many years the Greenway Commission has explored ways to develop Tinker Creek Greenway. In 2000 a conceptual master plan was developed in cooperation with students at Virginia Tech, and in 2003 the City of Roanoke completed the first mile of this greenway. In 2012 the City completed a bridge across the river to connect this greenway to Roanoke River Greenway. Also in 2012, Roanoke County began work on the northern end, using Pathfinders' volunteers to build the greenway as a natural surface trail from Hollins University to Carvins Cove. In 2016 Tinker Creek Greenway became a priority for the City when Deschutes Brewery decided to locate in Roanoke, a projected \$95 million investment, and requested that the greenway be extended to its site at RCIT.

In 2015 the Greenway Commission had been awarded assistance from the National Park Service Rivers, Trails, and Conservation Assistance (RTCA) program to study the Tinker Creek corridor, and thus an assessment of the feasibility of various alignments all the way to Botetourt County was underway, as shown in Figure 4-18. The Tinker Creek Steering Committee included staff representatives from Roanoke and Botetourt Counties, Roanoke City, and the Town of Vinton. The committee expanded previous resource inventories, explored multiple location alternatives, and began conversations with landowners about rights-of-way. In 2017, as part of the public input meetings for the update to the greenway plan, the committee received public input on the various alternatives. This process is documented in the Tinker Creek Greenway Conceptual Plan in Appendix E.

Benefits

Tinker Creek Greenway is envisioned as the arterial north-south route from Roanoke River Greenway to Carvins Cove and to Botetourt County. It will connect seven schools, employment centers, natural areas, and historic sites, with linkages to Carvins Cove, the Appalachian Trail, Read Mountain, and U.S. Bicycle Route 76. It has the potential to provide the same benefits as Roanoke River Greenway to a different quadrant of the valley, providing multi-modal connections, quality of life, opportunity for health and wellness, and a facility that encourages economic development.

Challenges

During development of the Conceptual Plan, the Steering Committee identified three challenges: site constraints and physical feasibility, cost, and community and political support. These three impact the ability to obtain rights-of-way and build the trail. Each alternative was evaluated on these criteria, as well as on its ability to provide benefits.

Next Steps

The City is currently in the engineering phase for the section from Wise Avenue to Masons Mill Park. The next step is the construction of that section, which is funded and promised as part of an economic development package. For the rest of the greenway, the first step is completion of the Tinker Creek Greenway Conceptual Plan as part of this 2018 Plan. After that, each locality will look for opportunities to develop sections by obtaining rights-of-way, securing funding, and building partnerships to construct the greenway, at times in conjunction with other projects.

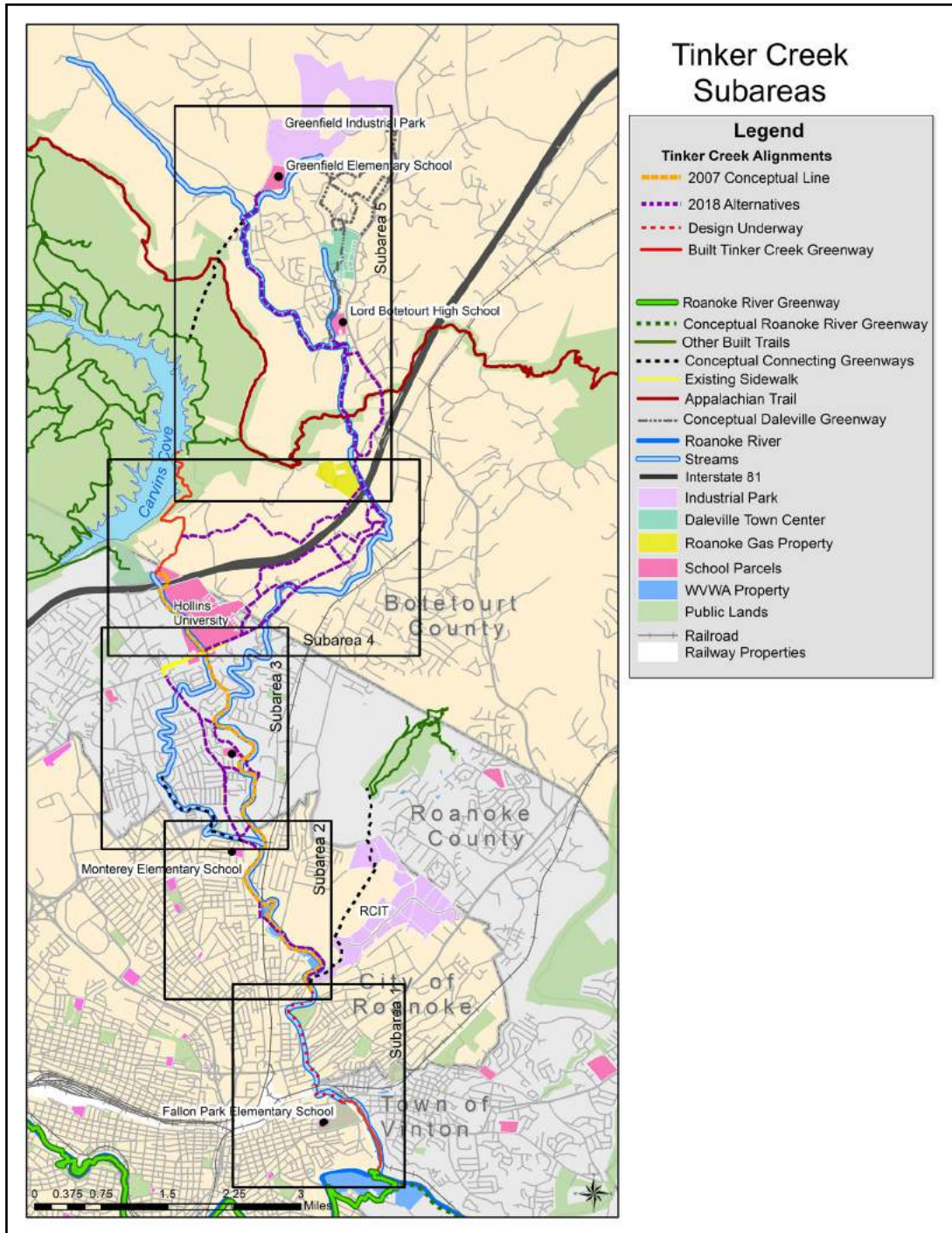


Figure 4-18: Tinker Creek Greenway Study Area

4.2.44. Wolf Creek Greenway, Map #44, Category 3

Description

This greenway corridor parallels Wolf Creek from the Blue Ridge Parkway to Roanoke River. The creek is the boundary between the Town of Vinton and Roanoke County. Development of this greenway as a joint project was initiated early in the greenway program because of the availability of land within parks, along sewer corridors, and next to Vinton's well fields.

Status

The section of the greenway in Vinton from Hardy Road to Washington Avenue was completed in 1999. The 80-foot bridge crossing the creek was built by volunteers, and the ribbon cutting for the trail was incorporated into the first Governor's Conference for Greenways and Trails. Vinton has continued to utilize volunteers for greenway maintenance and enhancement, with the addition of flower beds, kiosks, benches, additional parking, and a Police fitness course. In 2001 Hardy Road was widened from two lanes to five, and bicycle lanes and sidewalks were included with connection to the greenway.

Roanoke County's portion of the greenway was built in sections, with the last one completed in 2006 to reach Mountain View Road at the Blue Ridge Parkway. The greenway connects Goode Park, William Byrd schools, and Stonebridge Park, as well as numerous neighborhoods. The County's section also includes volunteer-built bridges, and the greenway goes under the reconstructed Mountain View Road, which now has bike lanes.

Benefits

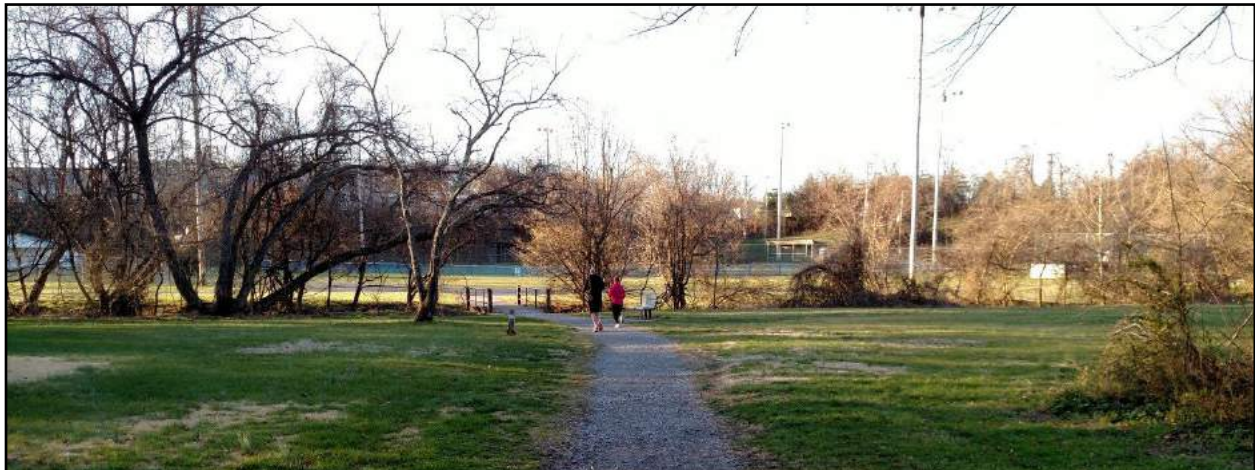
Wolf Creek Greenway provides a well-used connection in Vinton and Roanoke County neighborhoods. Many senior citizens, William Byrd students, and residents from local subdivisions as well as the neighboring county use the trail. With completion to the Parkway, Wolf Creek Greenway offers many extended loops.

Challenges

A major challenge at Wolf Creek Greenway has been stormwater runoff, sedimentation in the creek, and erosion. The cinder surface of the trail has been difficult to maintain due to an increasing number of intense rains and twenty years of repairs. The culvert under Washington Avenue, long maintained by volunteers, has become increasingly difficult to keep clear. Both the Town and the County have paved short sections to prevent washout.

Next Steps

The Town and County should continue to cooperate on frequent maintenance and compaction of the trail surface, with consideration of soil stabilizers. Plans for extension of the greenway to Vinton Business Center, the Blue Ridge Parkway, and Roanoke River should be developed before right-of-way acquisition can be initiated.



A couple enjoys a morning jog on the Wolf Creek Greenway, approaching Goode Park.

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5. REGIONAL TRANSPORTATION CONNECTIONS

This chapter focuses on regional connectivity. Connectivity was a major topic of the public input received during development of this 2018 Plan. Some connectivity can be achieved by ensuring that planned stretches of the greenway network outlined in Chapter 4 are built. Connectivity can also be addressed through alternate infrastructure networks such as on-road bicycle lanes, sidewalks, and transit. This chapter outlines proposed connections, identified by staff and the public, to integrate with other options for transportation.

5.1. OTHER REGIONAL PLANS

The Roanoke Valley- Alleghany Regional Commission (Regional Commission) has worked with member localities to create several regional plans which describe a vision for future improvements of alternative transportation networks. These networks can be used to further connectivity of the greenway system by providing bicycle, pedestrian, and transit accommodations for citizens to reach greenways, or reach destinations from greenways, without having to use a car. Improving connectivity in this manner meets three goals. In conjunction with expanding and improving the existing greenway network, construction of other facilities such as bicycle lanes and sidewalks helps to plug gaps in connectivity identified by the public. Improving connectivity increases the viability of the greenways as a transportation system by connecting users to key destinations. Lastly, users who are able to walk or bike to the greenway will receive greater health benefits from their activities and may access the greenway more frequently than those who must drive to get there.

Several regional plans which have been adopted by the Regional Commission and the Roanoke Valley Transportation Planning Organization (RVTPPO) include recommendations which should be discussed within the context of the greenway network. These plans, as well as a brief description of each, are listed below.

5.1.1. Regional Bikeway Plan

The [*Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization*](#) (MPO, now the RVTPPO) was completed in 2005 and updated in 2012. This plan recommends on-road accommodations for bicycles within the MPO boundary, generally the urbanized area, by identifying corridors in need of accommodations, listed as either priority or vision routes. The types of accommodations to be provided are not specified in this plan. All of the Greenway Commission member localities are part of the MPO area, in whole or in part, so there is a high level of overlap between recommendations in the Bikeway Plan and the greenway network. Recommended corridors for improvements from that plan are shown in Figure 5-1. Some of the corridors identified are discussed further as high priority connections for the Greenway Commission. For a complete list of all recommendations, please view the Bikeway Plan on-line.

5.1.2. Rural Bikeway Plan

The [*Rural Bikeway Plan*](#) (2006) of the Regional Commission identifies needed bicycle improvements in areas of the Roanoke Valley - Alleghany Region that are outside the boundary of the urbanized area. While the study area for the Rural Bikeway Plan excludes localities such as the City of Roanoke, Town of Vinton, and the City of Salem, large sections of Roanoke County and Botetourt County are within this study area. The purpose of the Rural Bikeway Plan is to provide information and guidance on the planning and provision of bicycle accommodations and facilities that enhance and encourage bicycling in the rural portions of the Regional Commission's service area. There are several recommendations in the plan that could have an impact on proposed connections in more rural areas where a connected greenway network becomes more challenging.

Bicycle accommodations described in the plan include paved shoulders, widened travel lanes, and bicycle lanes, as well as improved signage, such as Share the Road signs, and amenities, such as bicycle racks. Table 5-1, on page 73, shows the recommendations made for Botetourt and Roanoke Counties. This table highlights corridors where bicycle improvements should be made, but does not specify what kinds of improvements to target.

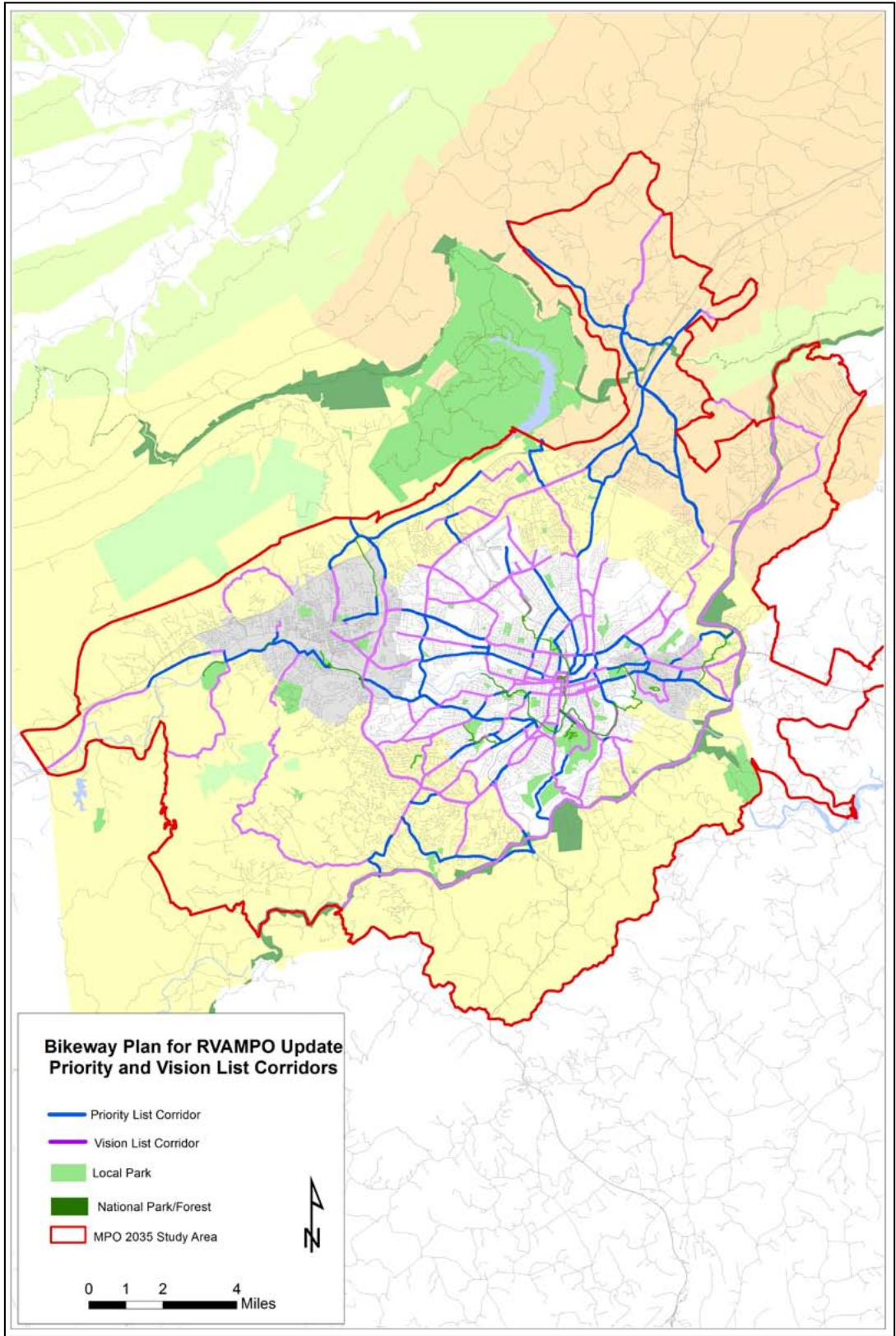


Figure 5-1: Recommendations from the *Bikeway Plan for the Roanoke Valley Area MPO, 2012 Update*

Notably, U.S. Bicycle Route 76 (USBR 76) runs through Botetourt and Roanoke Counties. Many of the roads shown in this table are part of this stretch of USBR 76. In 2017 the Regional Commission completed [US Bicycle Route 76. A study of the Roanoke Valley-Alleghany Region](#), making further recommendations for improvements and goals for the USBR 76 corridor.

Table 5-1: 2006 Rural Bikeway Plan Recommendations		
Botetourt County		
Roadway	From	To
US Route 11	Buchanan	Troutville
Frontage Road 55 (Old US 11)*	Rockbridge County Line	US Route 11*
Route 43	Buchanan	Blue Ridge Parkway
Route 43	Eagle Rock	Buchanan
Route 43	Eagle Rock Corporate Limit	US Route 220
US Route 220	Route 43	Route 615 (Craigs Creek Rd.)
Route 615 (Craigs Creek Rd.)	US Route 220	Craig County Line
Route 640 (Lithia Rd.)*	US Route 11	Nace Rd (also Route 640)*
Nace Road (Route 640)*	Route 640 (Lithia Rd.)	US Route 11
Route 651 (Stoney Battery Rd.)*	US Route 11	US Route 220
Route 740	Roanoke County Line	Carvins Cove Rd.
Route 779 (Valley Rd.)*	US Route 220	Catawba Rd. (also Route 779)
Route 779 (Catawba Rd.)*	US Route 220	Roanoke County Line
Blue Ridge Parkway **	Roanoke County Line	Rockbridge County Line
Roanoke County		
Roadway	From	To
Route 11/460	MPO Boundary	Montgomery County Line
Route 311 (Catawba Valley Rd.)	MPO Boundary	Craig County Line
Route 622 (Bradshaw Rd.)***	Route 864 (Bradshaw Rd.)	Montgomery County Line
Route 624 (Newport Rd.)	Route 311 (Catawba Valley Rd.)	Montgomery County Line
Route 740 (Carvins Cove Rd.)***	Route 311 (Catawba Valley Rd.)	Botetourt County Line
Route 779 (Catawba Creek Rd.)*	Route 311 (Catawba Valley Rd.)	Botetourt County Line
Route 785 (Blacksburg Rd.)***	Route 311 (Catawba Valley Rd.)	Montgomery County Line
Route 864 (Bradshaw Rd.)	Route 311 (Catawba Valley Rd.)	Route 622 (Bradshaw Rd.)
Route 1404 (Timberview Rd.) ***	Route 863	Road terminus
Blue Ridge Parkway **	Franklin County Line	Botetourt County Line

* Part of the U.S. Bicycle Route 76 (Note: all portions of U.S. Bicycle Route 76 are included in the Rural Bikeway Plan).
 ** Managed by the National Park Service.
 *** On-road greenway corridor from the 1995 Roanoke Valley Conceptual Greenway Plan.

5.1.3. Transit Vision Plan

The [Roanoke Valley Transit Vision Plan](#) (2016) outlines improvements that could be made to the transit network in the next several years. Transit service is provided in the region by Valley Metro, and buses include bicycle racks. An improved greenway network could help provide connectivity for the transit network. Improvements noted in the Transit Vision Plan include increasing frequency of service, broadening service to new routes, including Botetourt County routes, improving bus stops, and incorporating new transfer stations. While specific transit improvements are not discussed further in this chapter, transit is an important element of the overall alternative transportation network.

5.1.4. Regional Pedestrian Vision Plan

The [Regional Pedestrian Vision Plan, A Coordinated Approach to a Walkable Roanoke Valley](#), adopted by the RVTPO in 2015, provides a vision for a more walkable Roanoke Valley. This plan does two key things which are of interest in understanding how regional transportation networks interact. First, it makes numerous recommendations for pedestrian improvements in specific corridors and intersections. Second, through analysis of concentrations of employment and housing, it identifies multimodal districts and centers throughout the Roanoke Valley.

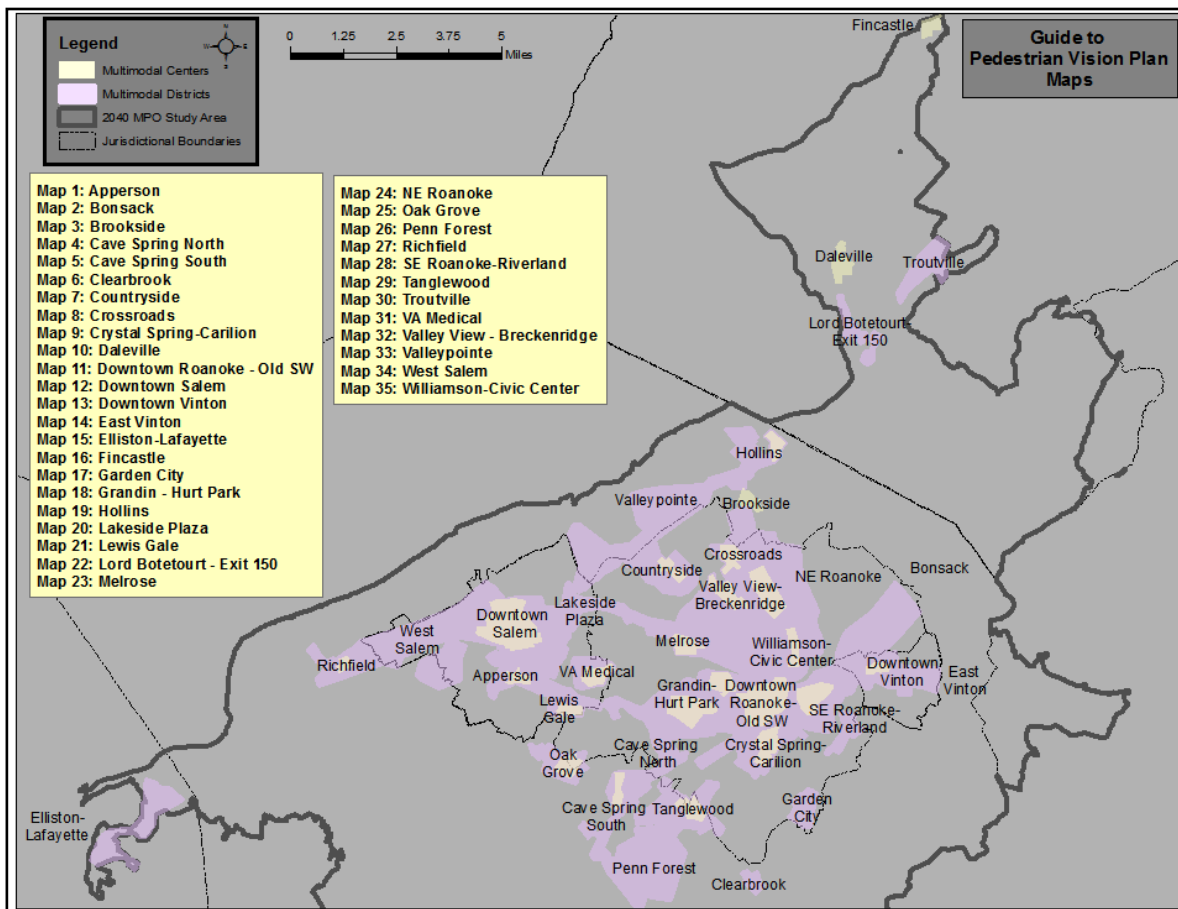


Figure 5-2: Map of Multimodal Centers and Districts, [Regional Pedestrian Vision Plan, 2015](#)

This is the first plan which identified multimodal districts and centers. This concept originates from the [Virginia Department of Rail and Public Transportation's Multimodal System Design Guidelines](#) (2013) which encourage the planning and implementation of an integrated transportation system including automobiles, public transit, bicycles, and walking. The Multimodal Districts and Centers represent areas of population density and future targeted growth, where destinations are close enough that walking and biking are viable modes of transportation. Transit service is often already provided or the need for it already acknowledged.

The definitions of these terms are:

Multimodal District: Any portion of a city or region with land use characteristics that support multimodal travel, such as higher densities and mixed uses, and where it is relatively easy to make trips without needing a car as gauged by the number of bus routes available and safe walking or biking paths – either currently or proposed in the future.

Multimodal Center: A smaller area of even higher multimodal connectivity and more intense activity, roughly equivalent to a 10-minute walk or a one-mile area.

The *Pedestrian Vision Plan* places priority on making accommodations in the centers and districts, shown in Figure 5-2. More detailed maps of all the plan's recommended accommodations can be accessed in that document.

In general, greenway corridors follow rivers, streams, and conservation corridors where there is less development, so there is little overlap with multimodal districts. Multimodal centers and districts without a direct connection to a greenway or a planned greenway are included in Table 5-2. By integrating and developing bicycle lanes and sidewalks, many of these important areas become accessible from the greenway network.

5.2. RECOMMENDED CONNECTIONS

The Regional Commission works with locality staff within the RVTPO and the broader Roanoke Valley - Alleghany Region to monitor bicycle accommodations, bus routes, and pedestrian infrastructure. This 2018 Plan recognizes the importance of connectivity with this infrastructure. The 2018 Greenway Plan Regional Connectivity Map (Figure 5-3, page 76) was developed to address the public's request for accommodations to reach key destinations (Figure 3-1, page 23) and to incorporate staff recommendations for connecting facilities. Existing bike lanes and sidewalks, along with the multimodal districts and centers, are shown on this map. Often, proposed connections would run along roadways, and constraining right-of-way and engineering factors may make a separated multi-use path not feasible. Connections, therefore, could range from sidewalks or improvements for bicycles to a multi-use path or greenway. Flexibility is inherent in these recommendations, and locality and VDOT staff will determine the nature of the improvements.

The specific recommendations identified under each locality that were developed for this 2018 Plan are shown in Figures 5-4 through 5-10, on pages 77 – 83.. There may be additional connections to greenways that will allow for easier use by pedestrians and bicyclists, and development of such is encouraged and supported by the Greenway Commission. For this 2018 Plan, discussion of the connections is shown by locality, as each locality independently designated its desired connections.

Table 5-2: Multimodal Districts and Centers without Direct Greenway Intersections	
District Name	Accessible by Existing Bike Lane or Sidewalk
Clearbrook	No
Exit 150	No
Elliston-Lafayette	Outside the Greenway Commission area
Troutville	No
Penn Forest	No
Center Name	
Hurt Park	Yes
Fincastle	No
Melrose Avenue	Yes*
Crystal Spring	Yes
Oak Grove	No
Old Southwest	Yes*
SE Roanoke	Yes
Williamson - Breckenridge	No
Williamson - Civic	Yes
Crossroads	Yes*
Lewis Gale	No
Downtown Vinton	Yes*
Richfield	No
VA Medical	No

* = technically connected but improvements needed

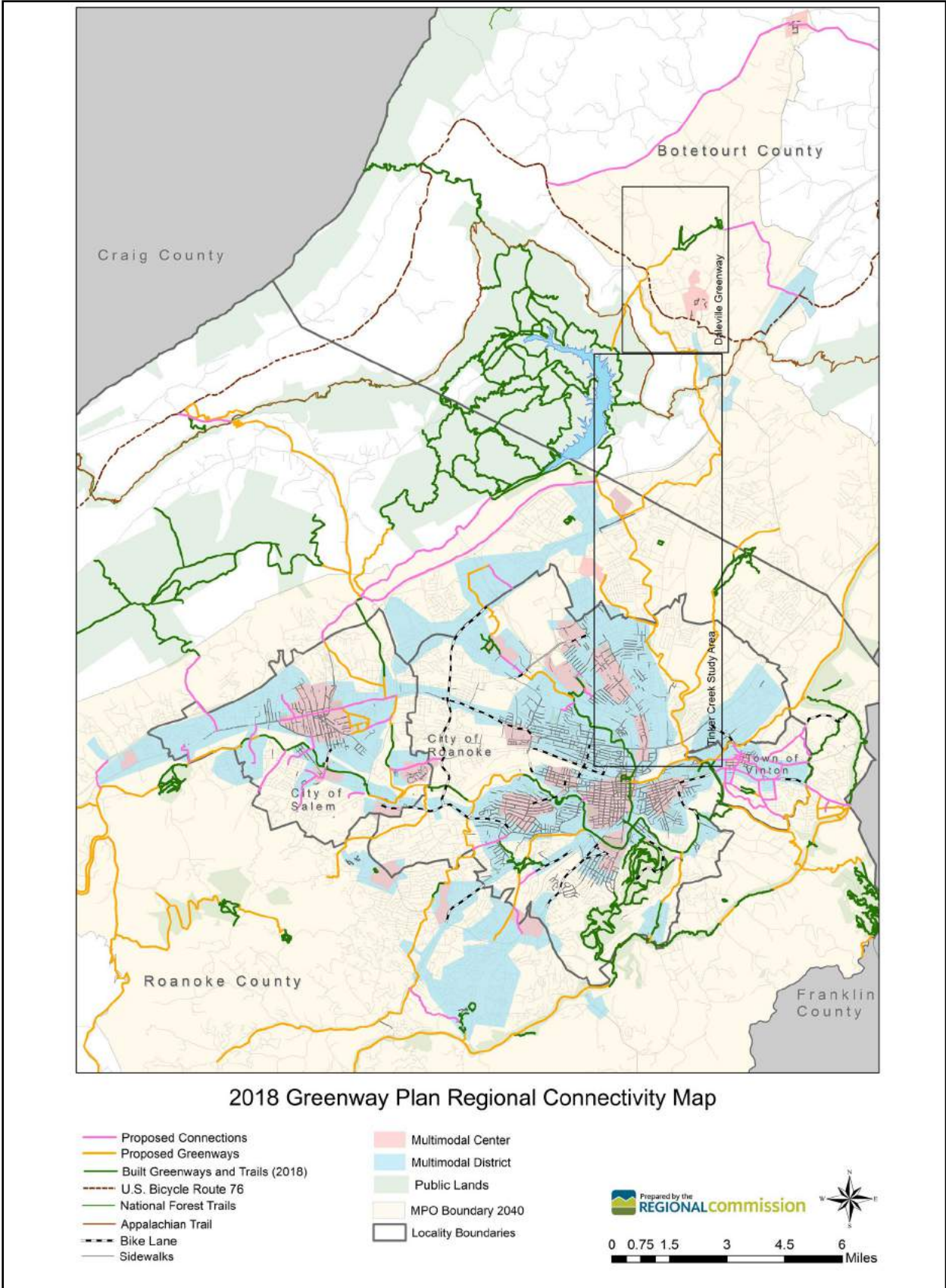


Figure 5-3: 2018 Greenway Plan Regional Connectivity Map

5.2.1. Botetourt County

Botetourt County is much more rural than the other member localities and has smaller multimodal districts. Given the rural opportunities, there are many routes popular for social rides and thus demand for connections from greenways to those routes. Most of Botetourt’s recommended connection corridors are much longer than those shown in other localities. These recommendations are listed in Table 5-3 and shown on the map in Figure 5-4.

The major connection in Botetourt County is U.S. Bicycle Route 76, a nationally designated bicycle route. This route is a priority for improvement and could function as a thru-corridor for bicyclists seeking access to parts of the greenway network, particularly Daleville, Buchanan, and Catawba. Improved accommodations along this corridor will be a key piece of Botetourt County’s local greenway network.

Two other roadways of note which could be improved as network connections are Blacksburg Road (45) and the Blue Ridge Turnpike (46). Both are shown in Figure 5-4 and provide connectivity between Daleville and Fincastle and Fincastle and USBR 76, respectively. Additional corridors identified for Botetourt show improved connections from USBR 76 to major residential neighborhoods.

Additional reference to planned bicycle and pedestrian improvements within the county can be found in Botetourt’s [Gateway Crossing Area Plan](#).

Table 5-3: Recommended Connections to the Greenway Network, Botetourt County	
ID	Name
45	Blacksburg Rd. to Fincastle
46	Blue Ridge Turnpike
47	Sunset Blvd

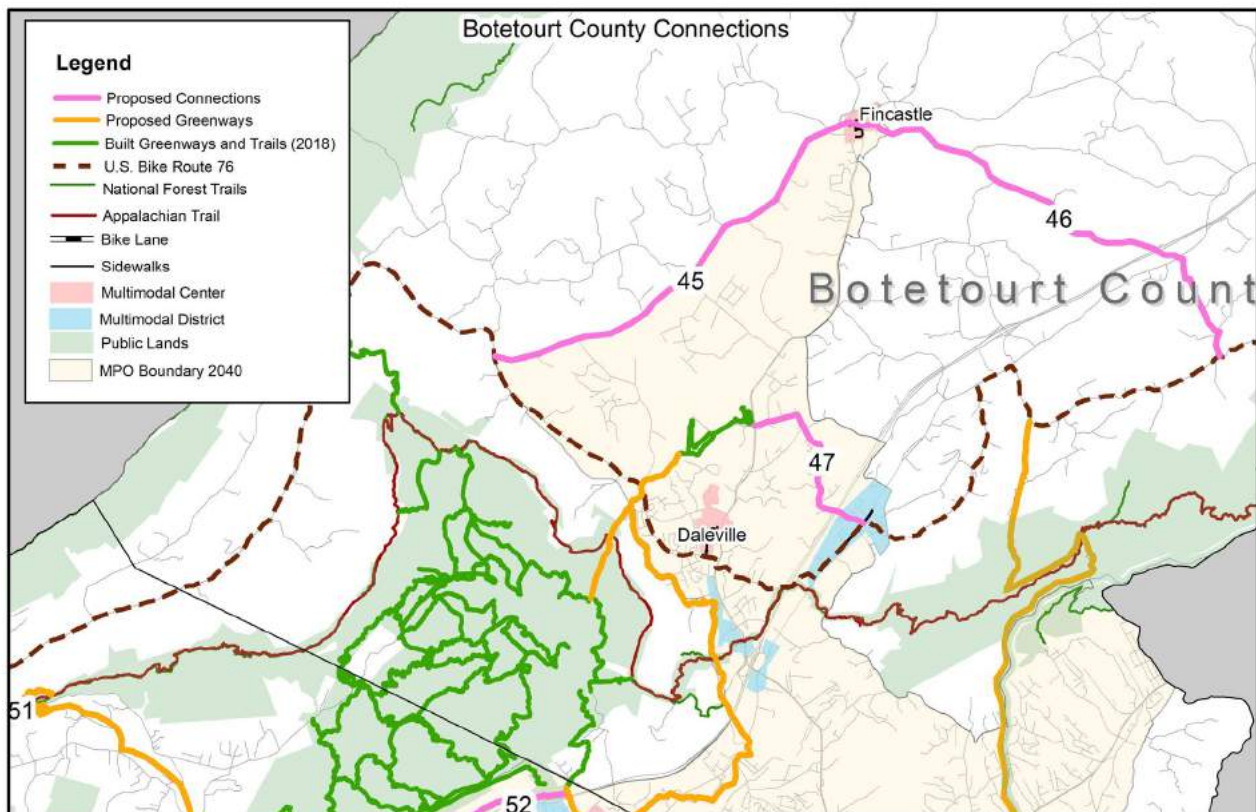


Figure 5-4: Botetourt County Connections

5.2.2. City of Salem

City of Salem staff worked with citizen appointees to the Greenway Commission to identify the connections in Table 5-4, shown on the map in Figure 5-5. Designations in Salem focused on connecting the greenways to residential areas and to downtown. The Roanoke River Greenway and the Hanging Rock/ Mason Creek Greenway are the main greenway corridors in Salem, and enhancing the connectivity of these was a key priority for Salem’s representatives.

There are numerous connections noted in the map and table, but most important to Salem’s goals of connectivity are connections 10, 11, and 21. Number 10 connects the Elizabeth Campus trail network to the planned Mason Creek Greenway. Number 11 connects the greenway system to downtown Salem, a multimodal center which has existing sidewalks but needs improved connections. Connection 21 would provide access to the Veterans Hospital, a multimodal center which is currently not connected to the greenway system.

Table 5-4: Recommended Connections to the Greenway Network, City of Salem	
ID	Name
1	Twelve O'clock Knob to Roanoke River Greenway
2	Mill Ln. to downtown
3	Mill Ln. to neighborhood
4	Union to downtown
5	Eddy to neighborhood
6	Colorado Ave. improvements
7	Homestead to Riverside
8	Colorado Ave. to Kimball neighborhood
9	Shanks St. (former Dry Creek Greenway)
10	Salem Civic Center
11	Main St. corridor
12	Keesling to Roanoke River
13	Wildwood Rd. to Havens WMA (with Roanoke Co)
20	Franklin to Kimball
21	Roanoke Blvd. to City Line

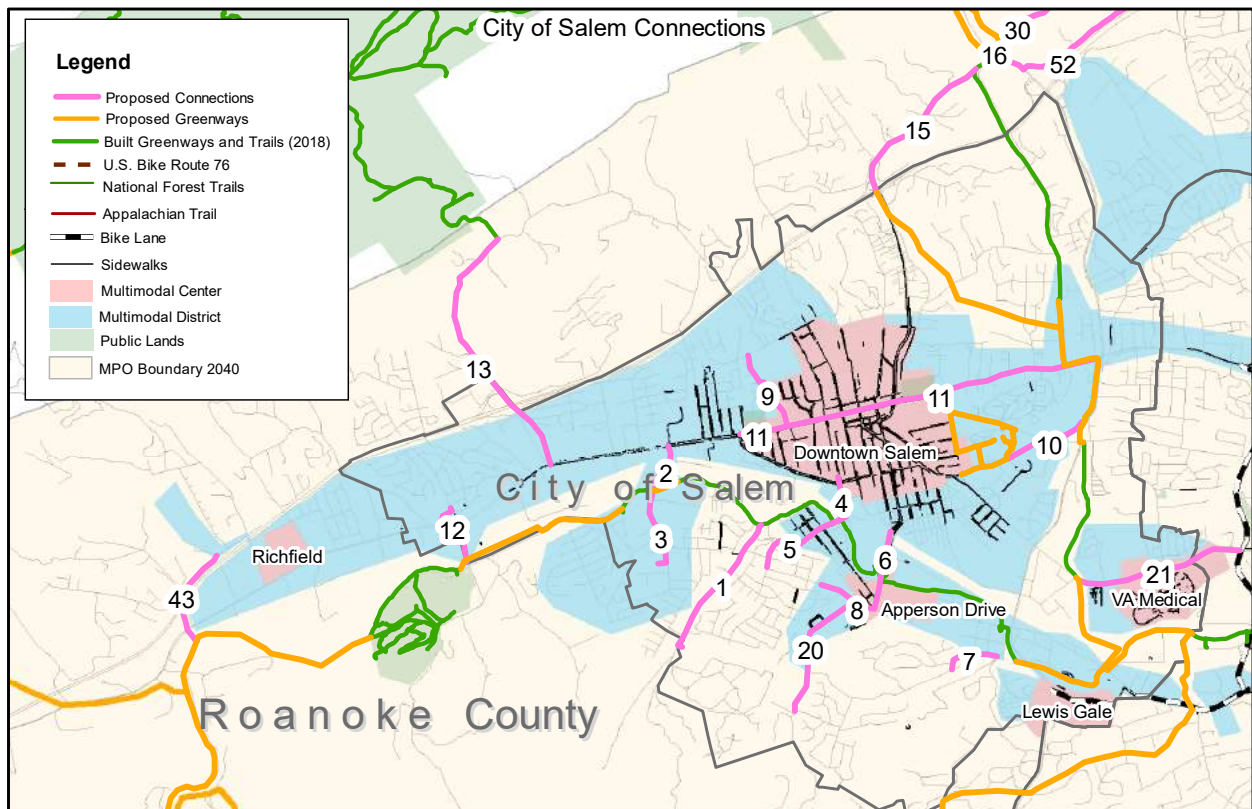


Figure 5-5: City of Salem Connections

5.2.3. City of Roanoke

City of Roanoke staff are currently working with the public to assess neighborhood connectivity throughout the City. The City has an annual sidewalk construction program, utilizes its paving program to add striped bike lanes, and works continually to update neighborhood plans, which could include improved connectivity to the greenway system. Suggested routes are in Table 5-5. Numbers 19, 48, 49, and 50 shown in Figure 5-6 increase connections to Lick Run Greenway. Number 31 in Figure 5-7 connects Murray Run Greenway with the planned Mudlick or Garst Mill Greenway route. Additional connections, 42 and 44 in Figure 5-7, are proposed to improve connectivity to the Old Southwest neighborhood from the Roanoke River Greenway.

Table 5-5: Recommended Connections to the Greenway Network, City of Roanoke	
ID	Name
19	Kennedy Park to Lick Run Greenway via Norris Dr.
31	Murray Run Greenway to Mudlick connector
42	Mill Mountain to Garden City Greenway
44	Roanoke River to Old SW
48	Lick Run Gway from Hershberger to Countryside via Ferncliff
49	Lick Run to Round Hill Elementary School
50	Lick Run to Huff Lane Park
53	Colonial Ave. to Murray Run

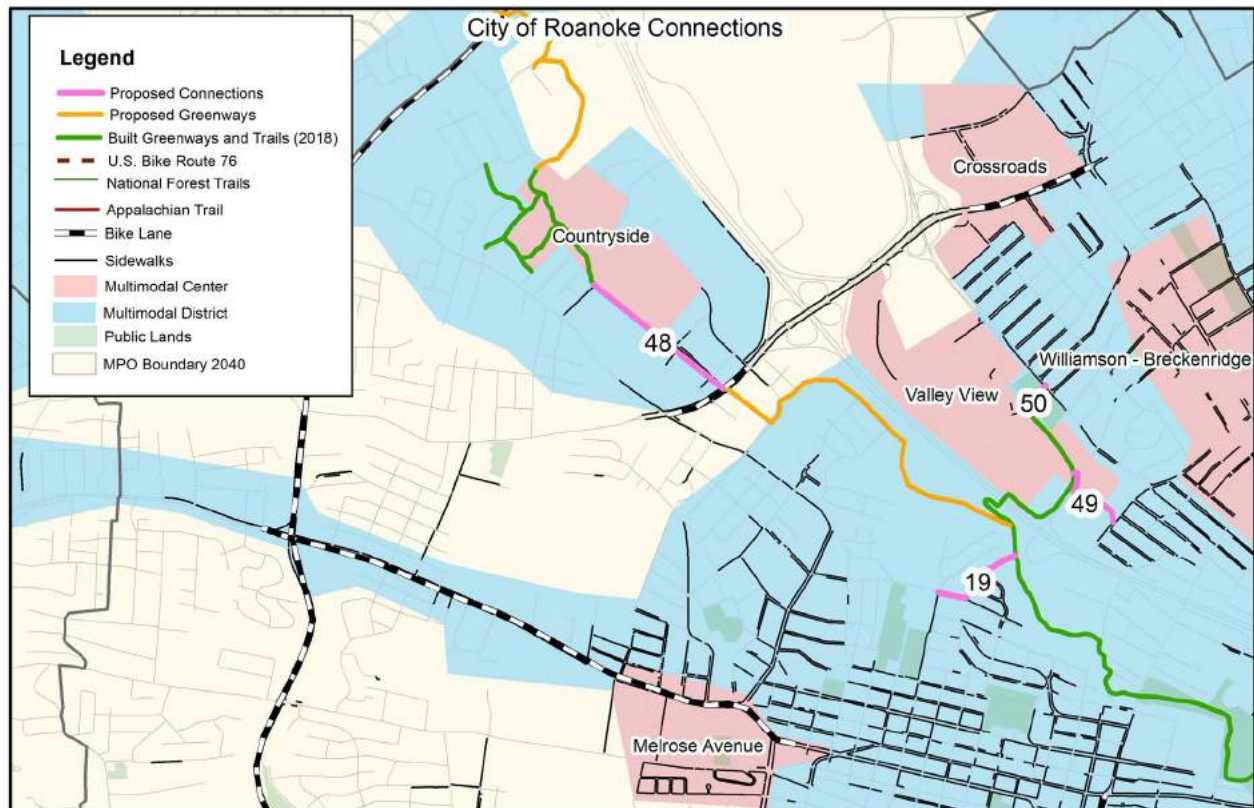


Figure 5-6: City of Roanoke Connections, Northwest

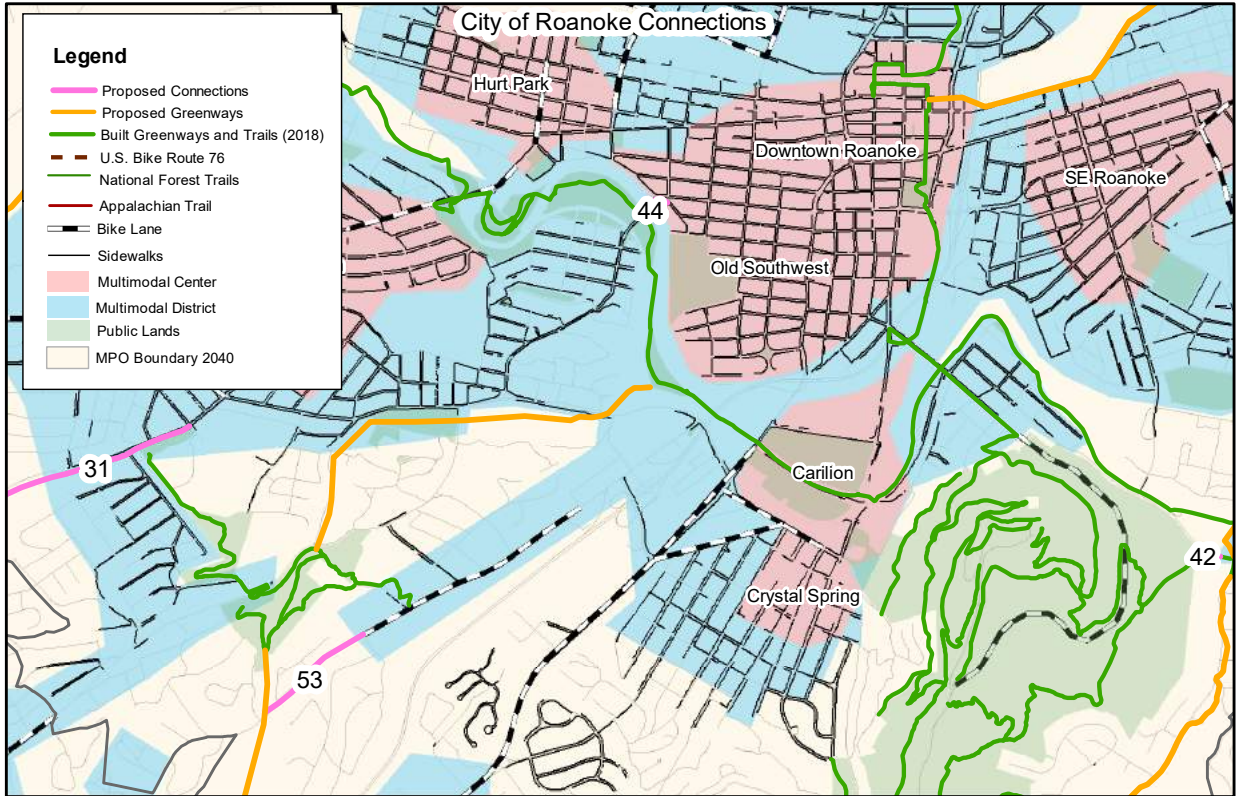


Figure 5-7: City of Roanoke Connections, Central and Southwest



With the growth of the greenway network, races and pub runs have become popular.
 Photo by Wade Thompson

5.2.4. Roanoke County

Given the geographic shape of Roanoke County, the connections in Table 5-6 are shown on several maps. On Figure 5-8 below Number 15 connects Hanging Rock Battlefield Trail to the proposed Gish Branch Greenway and existing Exit 140 Park-n-Ride, thus potentially providing a vital connection for bicyclists attempting to commute to the SmartWay bus stop operated by Valley Metro. Number 30 is a route broadly supported by public input, providing connection to Carvins Cove. Number 52 is a popular bicycling route that might be extended to Plantation Road and connected to Hanging Rock via Number 16. The Glenvar connection, Number 43 (Figure 5-5, page 78), connects Glenvar schools and the surrounding neighborhood to the Roanoke River Greenway.

On the southern Roanoke County connections map (Figure 5-9, page 82), the two connections shown are 17 and 18. Number 17 provides a needed connection between the planned Murray Run Greenway and Tanglewood Mall. Number 18 is an on-road version of Back Creek Greenway and would connect South County Library and the Penn Forest District to the planned greenway network.

Table 5-6: Recommended Connections to the Greenway Network, Roanoke County	
ID	Name
13	Wildwood Rd. from Salem to Havens WMA (map on p. 78)
14	Valleypointe Parkway to Lick Run Greenway
15	Hanging Rock to Park-n-Ride and Gish Branch
16	419 from Loch Haven to Hanging Rock and Hinchee Trail
17	Tanglewood to Murray Run connector
18	Former Back Creek Greenway
24	Virginia Ave./Hardy Rd. improvements (map on p.83)
30	Timberview to Carvins Cove
43	Roanoke River to Glenvar Connection (map on p.78)
51	Rt. 311 from Mason Creek Greenway to US Bicycle Route 76
52	Loch Haven Road from Rt. 419 to Plantation Rd.

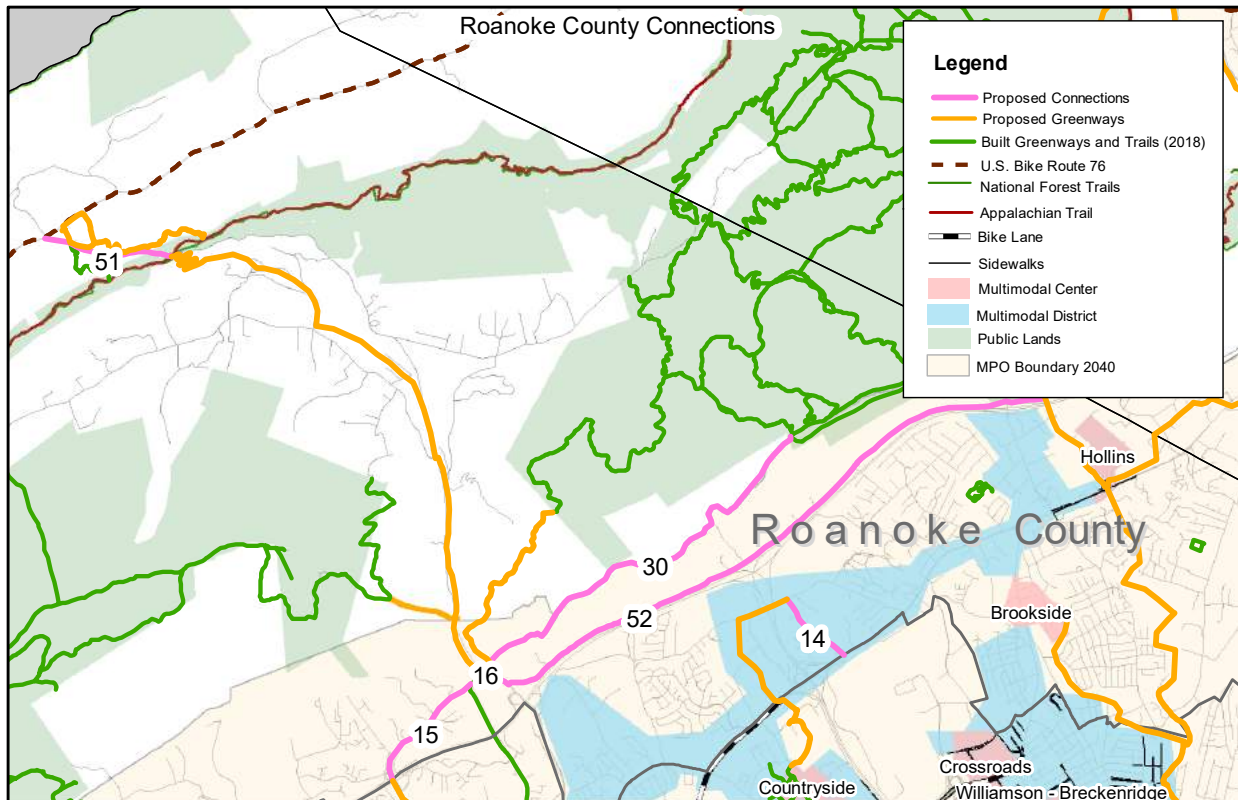


Figure 5-8: Northern Roanoke County Connections

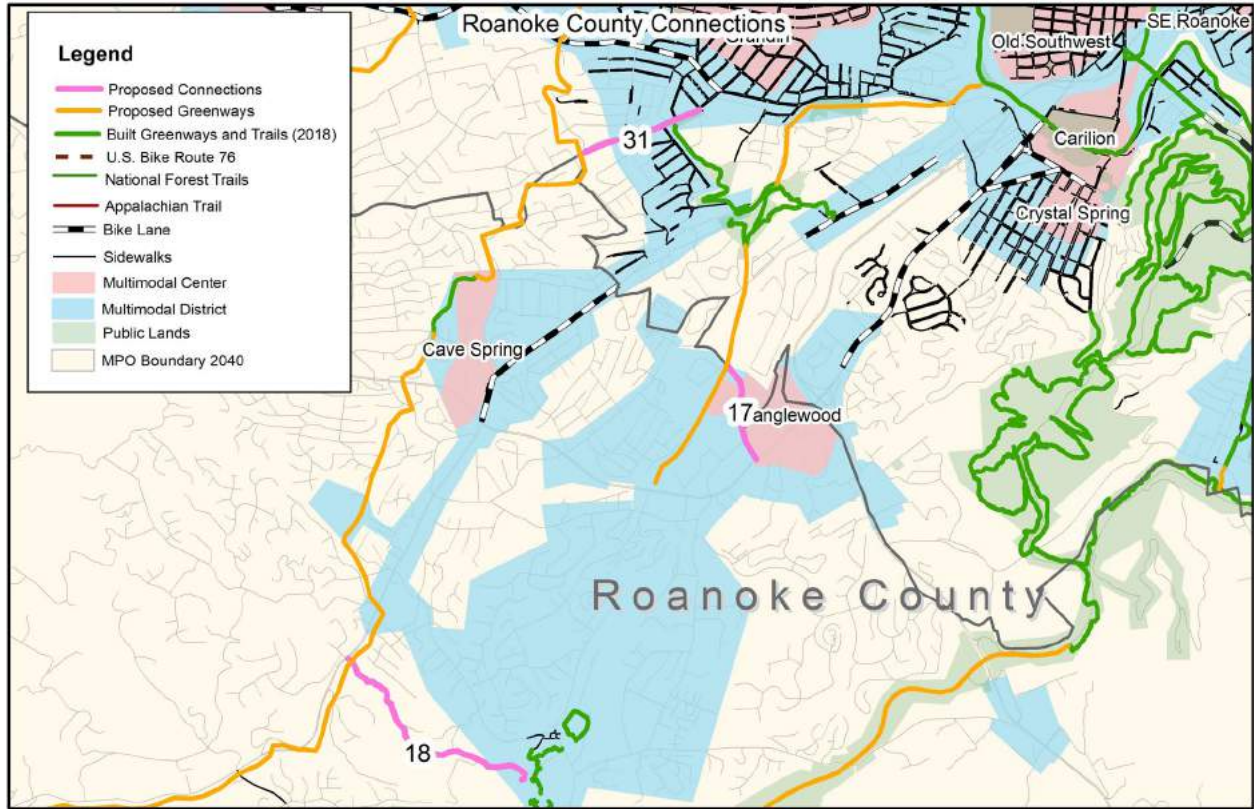
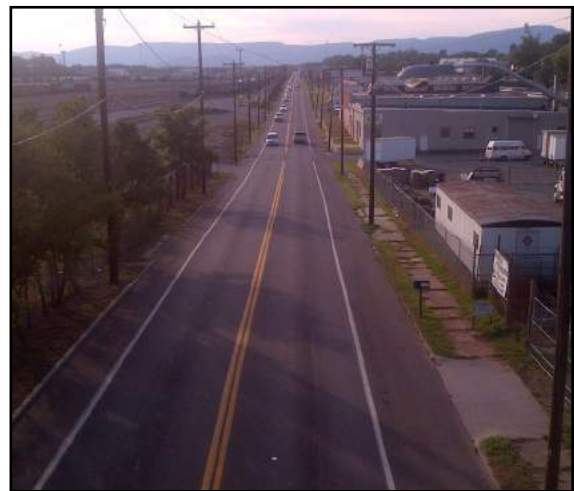


Figure 5-9: Southern Roanoke County Connections



Bicycle accommodations can be provided in conjunction with routine paving by striping a lane, as was done on Brambleton Avenue in Roanoke County and City and Shenandoah Avenue in the City of Roanoke.

5.2.5. Town of Vinton

The Town of Vinton designated many connections which they would like to see incorporated in the future, as shown in Figure 5-10. A complete list of all of the connections is in Table 5-7. Key connections to the greenway network include 33, 37, and 38, which connect Gladetown Trail, Glade Creek Greenway, and Wolf Creek Greenway respectively. There are also connections between planned trails, such as Number 24, which would connect Wolf Creek Greenway and the Perimeter Trail, and Number 25, which would connect Gladetown Trail to Wolf Creek Greenway.

A major priority for Vinton is to improve bicycle and pedestrian accommodations along major thoroughfares such as Walnut Avenue and Washington Avenue. These corridors are a popular route for bicyclists seeking to reach the Blue Ridge Parkway from the City of Roanoke.

Table 5-7: Recommended Connections to the Greenway Network, Town of Vinton	
ID	Name
22	Mountain View Rd.
23	Gladetown Greenway to Hardy Rd.
24	Virginia Ave./Hardy Rd. improvements (with Roanoke Co)
25	Gladetown Greenway to Wolf Creek Greenway
26	Meadow Rd. to Wolf Creek spur
27	Walnut Ave. to downtown
28	Jackson Ave. to E Cleveland
29	3 rd St. to Gladetown Trail Loop
32	Hardy Rd. to Niagara Rd. via Clearview
33	Gladetown Trail to Niagara Rd. via 3rd St.
34	Virginia Ave. to Gladetown Trail via S Pollard
35	Virginia Ave. to Washington Ave via S Pollard
36	Jackson to S Pollard via W Lee Ave.
37	Glade Creek Greenway to Mt View Rd. via Washington
38	Mt View Rd. to Wolf Creek via Washington
39	Cleveland to Hardy via Bedford Rd.
40	Hardy to Washington via Bypass Rd.
41	Cardinal Park Dr. to Vinton Business Center Trails

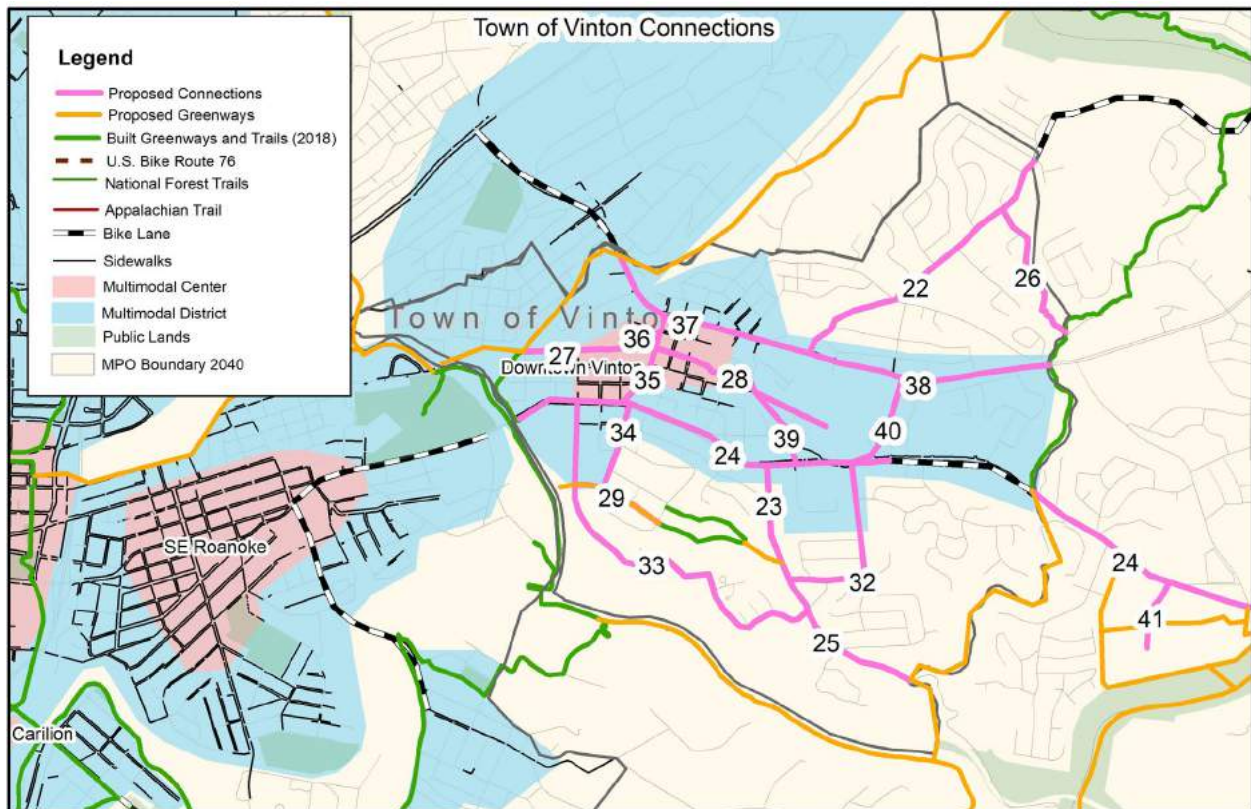


Figure 5-10: Town of Vinton Connections

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6. GOALS, OBJECTIVES, AND IMPLEMENTATION STRATEGIES

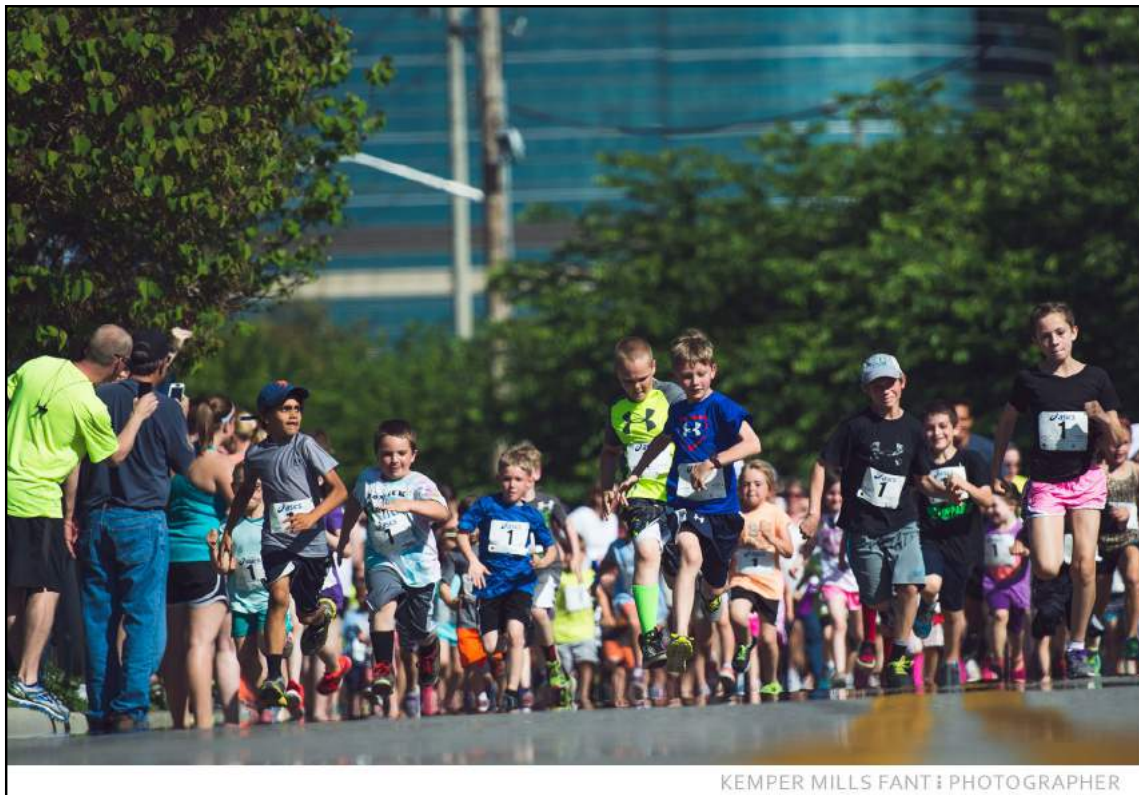
This chapter identifies goals, objectives, and strategies to aid in development of the greenway network (described in Chapter 4) and connections to that network (described in Chapter 5). This chapter in the 2018 Plan is an update by the Greenway Commission of the previous implementation strategies. The Greenway Commission will address the goals, objectives and strategies outlined in this section in a cooperative partnership with the five local governments, recognizing that each locality operates in an individual manner, is responsible for a broad spectrum of needs, and develops facilities as its resources and governance allows. This 2018 Plan reaffirms the goals and objectives of the 1995 Plan, listed in Section 2.4. Progress on goals and objectives from the 2007 Plan and 1995 Plan is discussed in Section 2.4.

Table 6-1: Implementation Strategies 2018

Goal	Objectives	Strategies
1. Greenway Construction Complete a connected greenway network of trails to provide the multiple benefits of a greenway system, with focus on finishing Roanoke River Greenway.	Prioritize greenway construction and focus resources on completion of the greenway network's arterial routes.	Focus on finishing the Roanoke River Greenway (Category #1) by 2023. Secondly, focus on finishing Category #2 routes.
	Provide a connected greenway system by focusing on long stretches of off-road trails and tying them together with on-road bicycle and pedestrian facilities.	Incorporate greenways and on-road connections in regional transportation plans.
	Provide identification, regulatory, and informational signs on each greenway to facilitate use and management.	Encourage signage consistency across the network while retaining flexibility to meet locality requirements.
	Coordinate with stormwater management and flood projects to capitalize on opportunities for new greenways and joint projects.	Within each locality, coordinate project management, land acquisition, and greenway construction with all departments that might help or be impacted.
	Coordinate with federal, state, and regional efforts to plan and develop long distance trail opportunities, encouraging inclusion of the Roanoke region as a destination site.	Use best management design practices and national and state guidelines like American with Disabilities Act (ADA), CPTED (Crime Prevention through Environmental Design), and AASHTO (American Association of State Highway and Transportation Officials) to design secure and safe trails.
		Support the localities in celebrating completion of each new greenway segment and significant feature.
		Support locality efforts to provide connections to the greenway network through improvements such as sidewalks and bike lanes and through wayfinding signage.
		Consider renewable energy options and recycling during design.
		Continue to use Pathfinders for Greenways to build Class C trails.

Table 6-1: Implementation Strategies 2018 (continued)

Goal	Objectives	Strategies
<p>2. Funding Assure adequate funding to meet the goals for construction and maintenance of the greenway network.</p>	<p>Maintain a regional, multi-year funding plan that identifies fiscal goals and sources of continuous funding for greenway construction and maintenance.</p>	<p>Assist localities with securing multiple funding sources and exploring innovative funding possibilities such as bonds, stormwater fees, private grants, and partnerships.</p>
	<p>Pursue new sources of revenue.</p>	<p>Continue to seek federal and state grants.</p>
	<p>Provide and encourage appropriate recognition of donors.</p>	<p>Pursue fund raising activities such as charitable donations, festivals, races, and other fundraising events.</p>
		<p>Encourage adequate funding for each locality's Capital Improvement Program, capital maintenance fund, and operations and maintenance budgets.</p>
		<p>Maintain a donation program to allow private donation of greenway amenities such as water fountains, bike racks, trees, and benches.</p>
		<p>Solicit and efficiently utilize corporate donations, and develop ways to recognize those donors.</p>
		<p>Maintain a list of specific trail sections or components that could be funded by private monies.</p>
	<p>Utilize Scouts, schools, civic groups, and other volunteer partnerships for installation of amenities such as kiosks, benches, landscaping, and mile markers.</p>	



Gallop for the Greenways is an annual fundraiser to support greenway construction.

Table 6-1: Implementation Strategies 2018 (continued)

Goal	Objectives	Strategies
<p>3. Land Acquisition Support a land acquisition program that provides rights-of-way needed for greenway construction.</p>	<p>Encourage and assist localities with land acquisition for each project within time lines that dovetail with construction schedules.</p>	<p>Identify properties, easements, and rights-of-way being acquired for other purposes to determine if greenway easements can be incorporated.</p>
	<p>Work cooperatively among local jurisdictions to coordinate land acquisition across jurisdictional boundaries.</p>	<p>Continue to be involved in the utility easement process so that greenway easements can be considered where appropriate.</p>
		<p>Work with planning staff to refine local zoning ordinances to encourage and protect greenway corridors.</p>
		<p>Encourage developers to include greenway easements and greenway construction within new developments.</p>
		<p>Utilize corporations and chambers of commerce to support development of trails within industrial/business complexes.</p>
		<p>Utilize platted easements to protect greenway corridors, and incorporate those into jurisdictional mapping systems and comprehensive plans. Monitor rail and road abandonments for potential greenway development.</p>



Conservation-minded landowners make greenways possible.

Table 6-1: Implementation Strategies 2018 (continued)

Goal	Objectives	Strategies
<p>4. Community Outreach and Education Develop a community outreach and education program that provides information on greenway opportunities, benefits, and user safety.</p>	Support an outreach program that communicates the economic, health, environmental, and quality of life benefits of the greenway system.	Partner with locality staff to expand communications to provide users with current information on projects, events, trail locations, maps, trailheads, closures, safety campaigns, meetings, upcoming development, and trail amenities.
	Increase awareness of greenway implementation efforts through a comprehensive marketing strategy.	Provide greenway marketing information to the economic development departments of the local jurisdictions.
	Expand environmental education programs, historic information, and service opportunities through cooperation with multiple partners.	Continue cooperation with the Regional Partnership, Roanoke Outside, and Virginia's Blue Ridge in promoting greenways and trails beyond the Roanoke Valley to attract new businesses and enhance the valley's value as a tourism destination.
	Promote responsible use of the greenways, common etiquette, and practices and activities compatible with multi-modal, shared use.	Expand signage and other methods of encouraging greenway etiquette.
	Encourage schools to embrace greenways as an avenue for safe routes to schools, fitness, and reduced transportation costs.	Expand outreach and market greenways and their benefits to residents through club and neighborhood meetings, civic associations, and business groups.
		Standardize use of the greenway logo on trail signs, maps, and marketing materials.
	Expand the volunteer and volunteer recognition programs.	
	Improve social media outreach and website design for more intuitive navigation and broader reach.	
	Work with locality staff to educate greenway users about methods of managing greenway corridors beneficial to water quality, such as reduced mowing.	
Continue to support the Greenway Ambassadors program and consider expansion into other localities.		
Develop an assessment of the economic impact of greenways locally.		

Table 6-1: Implementation Strategies 2018 (continued)

Goal	Objectives	Strategies
<p>5. Organizational Structure Utilize the organizational structure to effectively and efficiently implement the Greenway Plan, as updated, and manage the growing greenway system.</p>	Clarify the roles and responsibilities for implementing the Greenway Plan.	Clarify the roles and responsibilities of each locality, the Greenway Commission and volunteers in implementation of the Greenway Plan and specific projects.
		Identify staffing needs of the localities and Greenway Commission to meet responsibilities of each in implementing the Greenway Plan and managing and maintaining the greenway network.
	Utilize annual action plans for localities and committees to keep projects and activities focused and on schedule.	
	Maintain partnerships with agencies, nonprofits, and volunteering organizations.	
	Establish a permanent storage system for preserving greenway records.	
	Review local and state ordinances pertaining to greenways and trails to identify commonalities and deficiencies and to encourage consistent rules enforceable by code.	
<p>6. Greenway Management Assist the localities with management of the greenway network to meet user needs, provide a range of experiences in a safe and secure environment, and protect the natural resources.</p>	Encourage best management practices in maintenance and management of greenways.	Work with legal departments to develop any ordinances needed to effectively manage greenways.
	Facilitate coordination among greenway managers to address management issues and develop consistent responses.	Encourage the involvement of law enforcement and emergency management personnel in design and management of greenways and in incident reporting.
	Provide alternative resources and volunteers to manage the growing greenway network.	Improve methods for users to report problems or conditions on greenways.
	Cooperate with the Regional Commission on tracking performance measures and growth of the greenway network.	Schedule regional meetings among staff managing greenways to share methods and experiences.
		Identify greenways in locality mapping and geographic information systems.
	Promote adopt-a-greenway programs and other methods for volunteer assistance to reduce maintenance costs.	
	Support management departments in securing additional maintenance funding.	
	Continue to track greenway use and trends.	

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