

# BICYCLE, PEDESTRIAN, AND GREENWAY TRANSPORTATION

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Governments -- from local governments to national government -- are increasingly aware of the need to reduce the nation's dependence on fossil fuels, address global climate change, and improve air quality. Alternative transportation options, such as bicycling and walking, are emerging (or more correctly re-emerging) as viable and increasingly attractive modes of transportation. However, increasing the use of alternative transportation modes requires a comprehensive, multifaceted approach to the planning and provision of the requisite infrastructure, as well as a general paradigm shift in the connection between land use and transportation. Infrastructure, land use policy, education, and advocacy are all vital to facilitating and encouraging bicycling and walking as viable modes of transportation.

In partnership with local governments and other stakeholders, RVAMPO conducts a range of bicycle, pedestrian, and greenway planning and advocacy activities as a complement to its CLRTP. Among the major regional bike and pedestrian transportation studies and plans recently conducted by RVAMPO are:

- *Regional Bicycle Suitability Study (2003-2004)*
- *Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization (2005)*
- *Pedestrian Access to Commercial Centers (2006)*
- *2007 Update to the Roanoke Valley Conceptual Greenway Plan*

This chapter provides a brief overview of regional bicycle, pedestrian, and greenway planning activities developed to facilitate and encourage bicycling in the region.

BICYCLE AND PEDESTRIAN ACCOMMODATIONS

RVAMPO, local jurisdictions, and VDOT continue to work together to develop a regional transportation network that accommodate and encourage bicycling as an alternative mode of travel and popular form of recreation. The planning and provision of bicycle accommodations is an ongoing process, conducted and influenced by policies and stakeholders at the national, state, regional, and local levels.

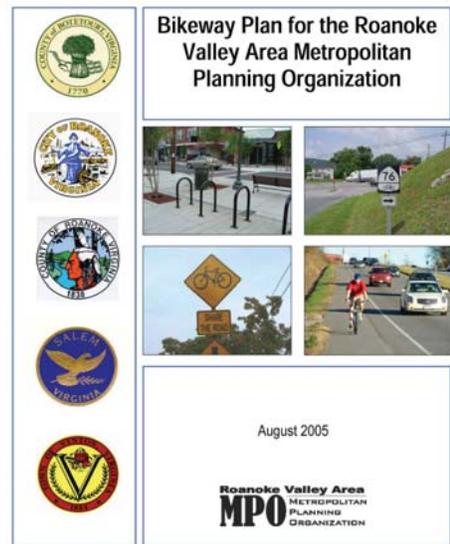
### BIKEWAY PLAN FOR THE ROANOKE VALLEY AREA MPO

In August 2005, RVAMPO's Executive Board approved the *Bikeway Plan for the Roanoke Valley Area Metropolitan Planning Organization (Bikeway Plan)*. The overall goal of the Bikeway Plan is to provide a coordinated and strategic approach to the development of a regional bicycling network that can offer greater connectivity between activity centers and cultural resources such as greenways, public areas, downtown areas, commercial centers, employment concentrations, educational institutions, transit facilities, scenic corridors and other points of interest in the MPO study area. The *Bikeway Plan* has several key components, including:

- Existing Bicycling Accommodations
- Regional Bicycle Accommodation Best Practices
- Priority List and Vision List of Corridors for Bicycle Accommodation
- Periodic review of the Bikeway Plan

The *Bikeway Plan* lists nine regional bicycle accommodation best practices to be applied, where applicable, in development of a regional bicycling network across the MPO study area. These best practices involve a range of considerations and activities including planning, design and engineering, funding, awareness and education, and political decision-making. These best practices emphasize using existing (and planned) transportation infrastructure to better accommodate bicyclists and capitalizing on opportunities to improve bicycling conditions when they arise. Regional bicycle accommodation best practices from the *Bikeway Plan* include:

- Apply VDOT's Policy for Integrating Bicycle and Pedestrian Accommodations to all corridors in the transportation network
- Encourage adoption and implementation of the *Bikeway Plan* by local governments and other stakeholders
- Utilize cost-effective techniques, where applicable and practicable, to better accommodate bicyclists
- Encourage cross-jurisdictional consistency in bicycle-related signage
- Improve ancillary bicycle accommodations and support facilities



- Develop and distribute a mobility map for the RVAMPO study area
- Incorporate the *Bikeway Plan* into other transportation and community planning documents and efforts
- Increase bicycle-related education, awareness, and advocacy
- Regularly review and update the *Bikeway Plan* for the RVAMPO

Since completing the *Bikeway Plan*, considerable progress has been made in expanding and improving the bicycling network in the RVAMPO study area. Many of the Regional Bicycle Accommodation best practices have been initiated in the region including on-road bicycle accommodations, ancillary facilities, infrastructure improvements, and advocacy and outreach activities.

In support of the *Bikeway Plan*, local governments have developed bicycle related policies and guidance documents. Most notably, the City of Roanoke developed and adopted the *Complete Streets Policy and Street Design Guidelines* as an amendment to its comprehensive plan, *Vision 2001-2020*. The City of Roanoke all reviews all roadways for possible provision of bicycle accommodations as part of its annual paving program. Roanoke County and the Town of Vinton incorporate bicycle planning components into corridor studies and area plans. Collectively these policies and plans serve to encourage and provide guidance on accommodating bicyclists within the existing and future transportation network.

### **ON-ROAD BICYCLE ACCOMMODATIONS**

VDOT's Policy for Integrating Bicycle and Pedestrian Accommodations defines an accommodation as "any facility, design feature, operational change or maintenance activity that improves the environment in which bicyclists and pedestrians travel." This policy provides the framework through which VDOT accommodates bicyclists and pedestrians in the planning, funding, design, construction, operation and maintenance of Virginia's transportation network. The VDOT Policy for Integrating Bicycle and Pedestrian Accommodations is provided in Appendix A.

While the *Bikeway Plan* includes recommended lists of corridors for on-road bicycle accommodation, the VDOT Policy for Integrating Bicycle and Pedestrian Accommodations does not recommend specific bicycle accommodations for listed corridors. Instead the plan recommends the use of "context sensitive design" at the local level to evaluate and select the most appropriate and practicable accommodation for a specific corridor or location.

RVARC and RIDE Solutions developed an interactive bike map showing bicycle accommodations, bicycle routes, and other bicycle-related facilities in the Roanoke Valley and New River Valley that can help assist cyclists in route selection and wayfinding. The *Interactive Bicycle Map* is available at [www.bikeroanoke.com/map/index.shtml](http://www.bikeroanoke.com/map/index.shtml). Currently bicycle lanes are in place along portions of Colonial Avenue, Gus Nicks Boulevard, Memorial Avenue, and Shenandoah Avenue (City of Roanoke); Hardy Road (Town of Vinton); and Mountain View Road (Roanoke County). Although official bicycle lanes in the region are limited, they offer examples of some of the various options and methods available for use by local governments and VDOT to better accommodate bicyclists.

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The Colonial Avenue bicycle lane was created by redesigning the existing pavement, thereby reducing the cost of installation. The existing Colonial Avenue design included on-street parking and a 24-foot wide travel lane (which encouraged higher vehicle traffic speeds) in one direction and an 11-foot wide travel lane in the opposite direction. Using existing pavement (49 feet), the City of Roanoke transportation division re-configured the existing design to maintain on-street parking, to provide two 12.5-foot wide travel lanes and a 5-foot wide bicycle lane. This configuration not only allowed for a bicycle lane, but the narrowing of the travel lane serves to reduce the vehicle speeds (i.e., traffic calming) on this portion of Colonial Avenue. Using the Bicycle Compatibility Index (BCI), this redesign increased the level of service on this roadway from very low (E) to moderately high (C).

Memorial Avenue in the City of Roanoke provides an example of a design concept known as a “road diet”, in which a travel lane is removed or narrowed to provide space to better accommodate cyclists. The Memorial Avenue “road diet” removed one travel lane, thereby providing sufficient space for the installation of a bicycle lane. This section of Memorial Avenue now has 5-foot bicycle lanes, and on-street parking on one side of the street. As an added benefit, the bicycle lane is connected to the nearby Roanoke River Greenway via a signed bicycle route.

Other on-road bicycle accommodations are available throughout the region, including paved shoulders, wide travel lanes, and signed bicycle routes. When installed in conjunction with routine maintenance, these accommodations are cost effective ways to better accommodate vehicular traffic and cyclists, as they require limited or no right-of-way acquisition or road widening.

There are two widely accepted methods for measuring how compatible a roadway is for allowing the efficient operation of both bicycles and motor vehicles: the Bicycle Compatibility Index (BCI) and the Bicycle Level of Service (BLOS). Both measures show that paved shoulders provide a level of service (LOS) similar to official bicycle lanes of the same width. While increased separation between motorists and cyclists generally increases the LOS for a given corridor, narrowing an existing arterial travel lane to provide a paved shoulder is effective provided the lane is at least 12 feet wide. Under 12 feet the LOS decreases significantly.

As part of its yearly paving and maintenance schedule, the City of Roanoke evaluates roadway segments for possible bicycle accommodations. Portions of several arterial corridors, including Brandon Avenue, Grandin Road, Shenandoah Avenue, Peters Creek Road, Plantation Road, and Main Street (Wasena) bridge, have already been updated.

Other arterial corridors in the MPO study area have paved shoulders and/or wide travel lanes, most notably Route 419/Electric Road, Portions of US 220 in Botetourt County, and US 221 (Brambleton Avenue) in Roanoke County. While the initial project design to expand Brambleton to four lanes did not include bike accommodations, they were added to the plan after research showed that 2 feet of pavement could be added to the outside travel lanes with little or no additional right of way needed.



Colonial Avenue BEFORE. A high traffic volume arterial in the City of Roanoke. BCI level of service was D (moderately low) and E (low).



Colonial Avenue AFTER. Re-configured existing roadway width. Narrowed travel lanes, provided bike lanes, and kept on-street parking. BCI level of service rose to C (moderately high).



The wide travel lanes, right edge stripe, and Share the Road signage on Brandon Avenue in the City of Roanoke provide separation between cyclists and motorists.



Signed shared bicycle route connecting the Memorial Avenue bicycle lane to the Roanoke River Greenway in the City of Roanoke.

VDOT maintenance funds cannot be used to install new bicycle accommodations, but these funds can be used to improve or expand existing accommodations. For instance, VDOT maintenance funds could be used to widen an existing paved shoulder. In fact, VDOT is required to use two percent of its maintenance funding for bicycle and pedestrian accommodations. Making effective and coordinated use of these funds could be an effective way to significantly increase bicycle accommodations in Botetourt County and Roanoke County, where VDOT is responsible for road maintenance.

### **SIGNED SHARED ROADWAYS AND SHARED ROADWAYS**

A shared roadway is any roadway used by motorists and bicyclists without any special bicycle accommodations. These tend to be lower-traffic, lower speed, collector and neighborhood streets. Some shared roadways have ancillary accommodations, such as signage and pavement markings and may also incorporate minor operational changes to better accommodate cyclists. They often connect activity centers and destinations or serve as connections between existing bicycle accommodations. In cities that are recognized as leaders in facilitating and encouraging cycling (such as Portland, Oregon and Boulder, Colorado) signed shared bicycle routes are by far the most common bicycle accommodation and are the foundation of the bicycling network.

The City of Roanoke and the City of Salem currently have a limited number of signed shared routes in place. The City of Roanoke developed its signed shared routes to provide connections between area greenways, existing bicycle accommodations, and other activity centers.

### **ANCILLARY BICYCLE ACCOMMODATIONS**

In addition to on-road accommodations, ancillary accommodations are an important part of a functional bicycling network. Ancillary accommodations include signage, bike racks and other storage facilities, routing and wayfinding information, and benches. Even bicycle racks on buses, showers, changing facilities, and clothing storage areas can be considered ancillary facilities.

Bicycle racks are the most common ancillary accommodation in the MPO study area. There are currently approximately 100 bicycle racks within the MPO study area and efforts are underway to increase this number. RIDE Solutions has developed a bicycle rack donation program that provides bicycle racks to area businesses, and the City of Roanoke has installed bicycle racks throughout downtown, in parks, and along greenways. In addition to provided bicycle parking the Roanoke Regional Partnership is using the number of bicycle racks (and increase in the number) in the region as a metric in evaluating the region's overall bicycle friendliness.

In the fall of 2006, Valley Metro began installing bicycle racks on its fleet of approximately 45 buses as part of its Bike "n" Ride program. Currently, all Valley Metro buses are now equipped with front mounted racks with a two bicycle capacity. Additionally, all Smartway buses are also equipped with bicycle racks and have also been retrofitted to carry additional bicycles in the underneath compartments.

Bike racks on buses promote multimodalism. A bicycle commuter can cycle from a rural residence to a transit stop, connect to any other part of the region served by the

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public transit network, and then use the bicycle to complete the trip. However, before high levels of multimodalism can be achieved, improvements need to be made in not only the bicycle infrastructure, but in the public transit infrastructure as well. Impediments to multimodalism include lack of bike lanes or other on-street bicycle facilities leading to transit stops, lack of covered waiting facilities, lack of bicycle parking and secured storage at transit stops, and limited service to portions of the study area.



Bicycle racks on Valley Metro bus.



Ancillary accommodations in Grandin Village in the City of Roanoke.

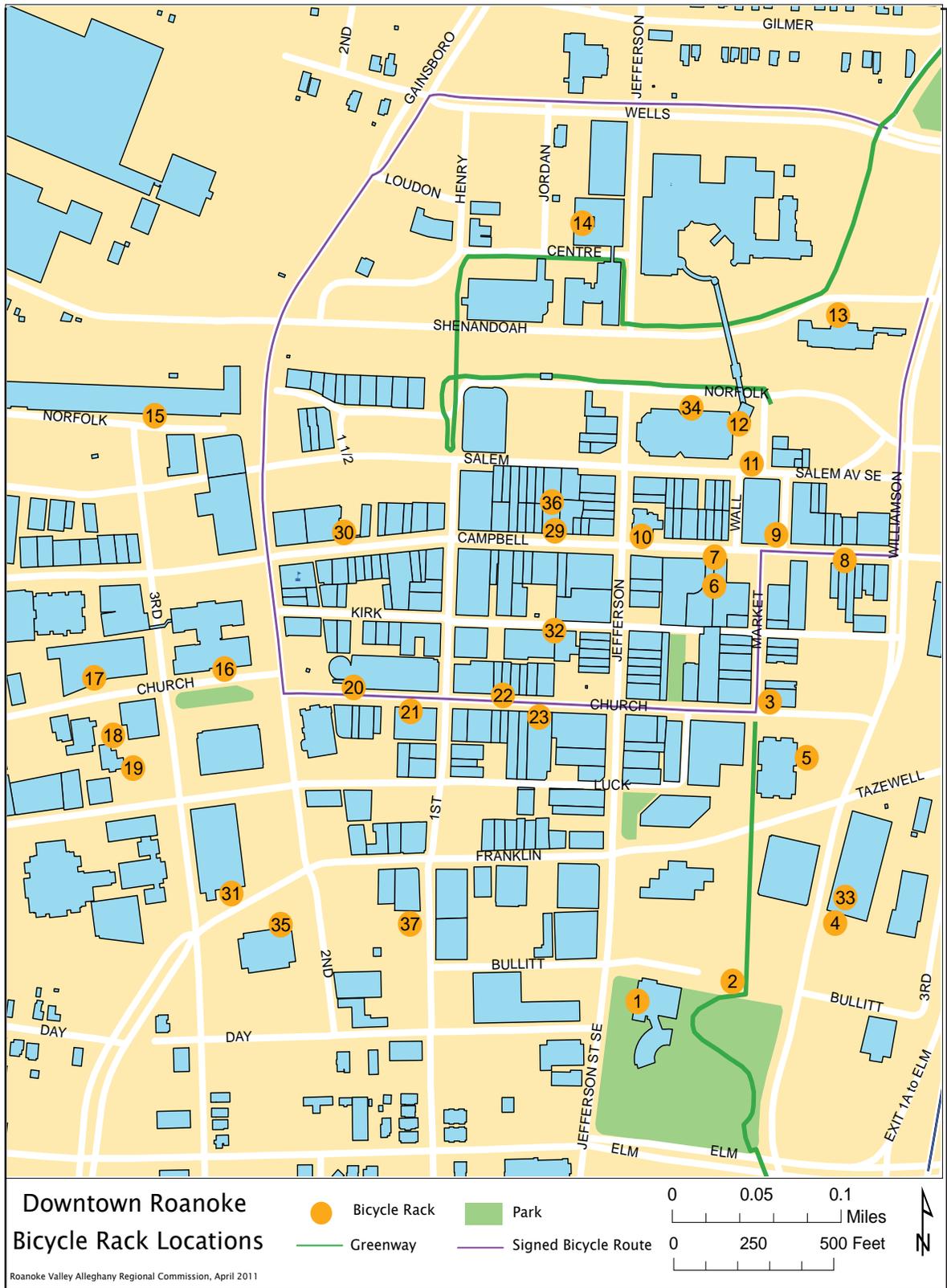
## BICYCLE ACCOMMODATIONS MAPPING

Another critical component to increasing bicycle usage is having readily available information. To help meet this need, RVARC provides a range of mapping and spatial data as part of its ongoing regional bicycle, pedestrian, and greenway planning efforts. Using geographic information system software (ArcGIS), RVARC also developed and distributed free copies of the *Bike, Hike and Bus* map to local governments, bike shops and other locations around the Roanoke Valley. Areas covered by the map include the cities of Roanoke and Salem, Roanoke County, and the Town of Vinton. GIS data layers include:

- Bicycle lanes
- Wide travel lanes
- Paved shoulders
- Signage
- Signed shared routes
- Greenways – current, planned, and proposed
- Bike to work/commuting routes
- Bicycle racks
- Bicycle shops
- *Bikeway Plan* Priority List of corridors for bicycle accommodation
- *Bikeway Plan* Vision List of corridors for bicycle accommodation
- Carvins Cove and other trails in the region

RVARC and RIDE Solutions developed an interactive bike map showing bicycle accommodations, bicycle routes, and other bicycle-related facilities in the Roanoke Valley and New River Valley that can help assist cyclists in route selection and way-finding. The *Interactive Bicycle Map* is available at [www.bikeroanoke.com/map/index.shtml](http://www.bikeroanoke.com/map/index.shtml)

Downtown Roanoke bike rack locations (top) and Interactive Bicycle Map (bottom).





Engineering alone is not enough - cyclist illustrating the need for cyclist education in addition to bicycle accommodations.

### **PUBLIC EDUCATION, OUTREACH, AND ADVOCACY**

On-road accommodations, shared roadways, and ancillary accommodations are most effective at increasing bike and alternative transportation when complemented by education, safety, and advocacy efforts. The *Bikeway Plan* cites such efforts as a regional best practice and as necessary to improve bicycling conditions in the region. RVAMPO has worked cooperatively with local governments, area cyclists, and other stakeholders to develop and implement bicycle education and advocacy activities to promote and facilitate bicycling in the region.

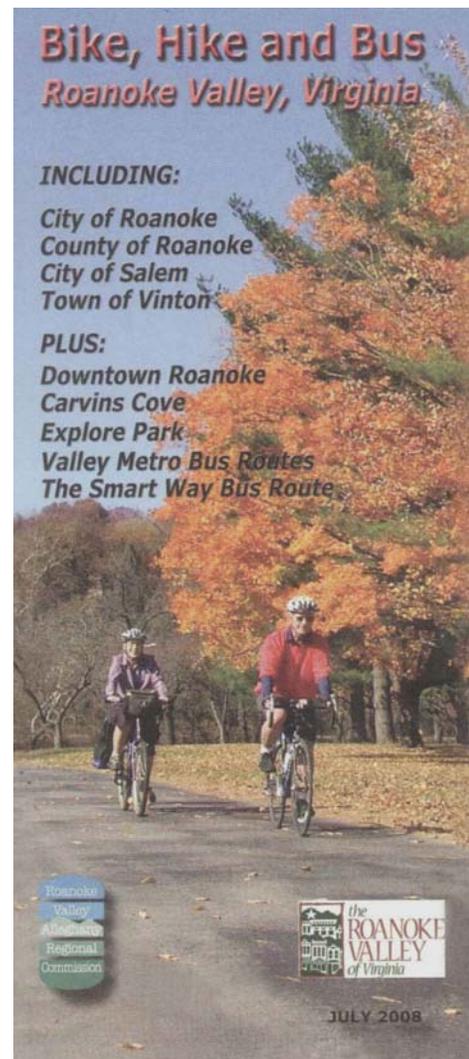
### **BICYCLE FRIENDLY COMMUNITY WORKSHOP**

In January 2008, the League of American Bicyclists hosted a “Bicycle Friendly Community” (BFC) workshop in Roanoke. Attended by more than seventy local planners, engineers, community leaders, and bicycle enthusiasts, the four-hour workshop explored actions taken by communities across the country to encourage bicycling, including strategies from striping bike lanes, building trails, installing bike parking and signing popular bike routes, to education and encouragement programs to get more people riding safely. The workshop concluded with a series of action items to propel Roanoke Valley communities toward official designation as Bicycle Friendly Communities. Action items developed by the group include:

- That RVAMPO establish a Bicycle Advisory Committee
- That each local jurisdiction establish a Bicycle Advisory Committee
- That each local jurisdiction adopt the *Bikeway Plan*
- Encouraging local interest groups to include non-motorized transit issues in their platforms

- Hosting a candidate forum
- Creating an awards program to recognize government officials or agencies that are instrumental in improving conditions for cycling
- Organizing a community bike ride series
- Organizing a “big ride” with a large number of participants including elected officials
- Notifying businesses of the availability of free bicycle racks through the Bicycle Rack Donation Program
- Launching a bike education program
- Airing television public service announcements to educate bicyclists on how to ride safely and motorists on how to share the road
- Promoting bicycle rodeos, helmet giveaway programs, and Safe Routes to Schools projects
- Participating in VDOT and National Park Service public meetings
- That each attendee participate in his or her Neighborhood Plan update process
- Determining outcomes of action plan

Since the workshop, considerable progress has been made on the action items, including establishing a regional bicycle advisory committee, creating an awards program, promoting the bike rack donation program and the Safe Routes to School project, organizing a planners bicycle ride, providing bicycle education, and hosting a range of Bike month activities. Additionally, the City of Roanoke was designated as a Bicycle Friendly Business at the Bronze level by the League of American Bicyclists. The Regional Commission was the first business in Virginia to receive this designation. In pursuit of this designation, the City of Roanoke officially adopted the 2005 Bikeway Plan, the 2007 Update to the Roanoke Valley Conceptual Greenway Plan, a Complete Streets Policy, and Street Design Guidelines. In addition, the city established a local bicycle advisory committee to guide implementation of the recommendations from the 2008 BFC application.



## WEBSITES AND INTERACTIVE MEDIA

**RVARC's *Bicycle and Pedestrian Planning*:** RVARC maintains a website that provides a range of bicycle, pedestrian, and alternative transportation information and resources. The site ([www.rvarc.org/bike](http://www.rvarc.org/bike)) is a one-stop portal for bicycle, pedestrian, greenway, and alternative transportation in the Roanoke Valley. Information provided on the website includes:

- News and events
- Local, regional, and state bicycle and pedestrian plans, studies, and reports
- Maps - printable and interactive
- Presentations
- Commuter and public transportation resources
- Local government plans and paving schedules
- Local clubs and organizations
- Trail and outdoor recreation information
- VDOT policies, plans, and resources

***RIDE Solutions - Bike & Walk Website:***

This site ([www.ridesolutions.org/bikewalk](http://www.ridesolutions.org/bikewalk)) provides information on programs and resources to encourage and facilitate carpooling and alternative transportation in the region. Website resources include:

- For Your Health
- Interactive Bike Map
- Bike to Work Routes
- Bike Rack Donation Program
- Map and Share Routes
- Guide to Bicycle Commuting

***Beyond RIDE Solutions*** utilizes a range of interactive media including discussion forums, blogs, and message boards to disseminate information and receive feedback from the bike/ped community. Media include Twitter, Facebook, YouTube, and NewVa Moves.

***BikeRoanoke.com:*** RVARC, RIDE Solutions, and local governments cooperatively developed this one-stop portal for bicycle information in the region.

**REGIONAL BICYCLE ADVISORY COMMITTEE**

While RVAMPO and local governments have cooperated to improve bicycle accommodations in the region, much of the planning has been coordinated through the Transportation Technical Committees or ad-hoc steering committees. The Regional Bicycle Advisory Committee (BAC), established by RVARC, represents the first standing, regularly convened, alternative transportation planning and advocacy stakeholder group established at the MPO level. The Regional BAC is composed of a range of stakeholders including local government staff, regional and state agencies, and bicycle clubs and advocacy groups, including:

- BikeWalk Virginia - Roanoke Valley Chapter
- Blue Ridge Bicycle Club
- Blue Ridge Parkway (National Park Service)
- Botetourt County
- Citizen Advocates
- City of Roanoke
- City of Salem
- Cyclo-Ward Bicycle Repair

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RIDE Solutions  
Roanoke County  
Roanoke Valley-Alleghany Regional Commission  
Roanoke Regional Partnership  
Roanoke Valley Greenway Commission  
Sharebike.org  
Town of Vinton  
Virginia Department of Transportation (Salem District)

To date, the Regional BAC has performed a range of outreach and advocacy efforts including:

- Commenting on VDOT plans and policies
- Developing a regional bicycle awards program
- Organizing a series of planners (and other staff) bicycle rides
- Hosting bicycle-related webinars and workshops
- Route development assistance
- Disseminating bicycle-related information
- Supporting local bicycle events and advocacy efforts
- Providing guidance on the update of the Bikeway Plan



Innaugural Panners' and Engineers' ride - 2009

### **SAFE ROUTES TO SCHOOLS**

Safe Routes to School Program (SRTS) is a federally-funded program created under Section 1404 of the 2005 SAFETEA-LU whose purpose is to:

- Enable and encourage children, including those with disabilities, to walk and bicycle to school
- Make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age
- Facilitate the planning, development, and implementation of projects and

activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools

Several localities have received funding through SRTS including the City of Salem and Roanoke County. The City of Roanoke and Roanoke City Public Schools were awarded SRTS funding to provide infrastructure improvements both around Addison Middle School and Forest Park Elementary School and in their surrounding neighborhoods. The projects will include new shared-use path connections, new lighting along the Lick Run greenway in Washington Park, and in-fill sidewalk construction in the neighborhoods. Roanoke County and Roanoke County Public Schools also received funding for a bicycle education program and a project to better connect Wolf Creek Greenway Trail, William Byrd Middle School, and surrounding neighborhoods.

### **WEBINARS, WORKSHOPS, TRAINING, AND REFERENCE MATERIALS**

In an effort to provide ongoing training opportunities and information, RVARC regularly hosts a range of bicycle related webinars from the Association of Pedestrian and Bicycle Professionals, American Planning Association, and other organizations. Webinars are provided at no cost to participants and are open to local government staff, stakeholders, and citizens. Topics covered include bicycle master plans, shared lane markings, AASHTO (a nonprofit, non-partisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico) and MUTCD (Manual on Uniform Traffic Control Devices), and bicycle and pedestrian safety.

RVARC maintains a reference library that houses numerous bicycle and pedestrian planning documents available for loan to local government staff and other stakeholders. It also distributes other bike/pedestrian resources from VDOT, Federal Highway Administration, US Department of Transportation, Bike Smart Virginia, the League of American Bicyclists, and other agencies and organizations.

## **ROANOKE VALLEY GREENWAYS**

The Roanoke Valley has an expanding greenway network that serves as recreational, and increasingly, alternative transportation corridors. Working individually and cooperatively, the Roanoke Valley Greenway Commission, Roanoke County, the cities of Roanoke and Salem, and the Town of Vinton continue to develop an extensive, growing, and increasingly interconnected greenway network in the Roanoke Valley. In the 2007 Roanoke City and Roanoke County Park Master Plans, citizens named greenways as the top facility they wanted. The region has already committed millions of dollars to the development of over 20 miles of greenways and 120 miles of trails.

In response, the Roanoke Valley Greenway Commission (herein referred to as the Greenway Commission) was formed in 1997 by an Intergovernmental Agreement among the four Roanoke Valley local governments – City of Roanoke, Roanoke County, City of Salem, and Town of Vinton – under Virginia Code Section 15.2 - 1300. The Greenway Commission has seven voting members: one member appointed from each of the five member governments, one member appointed by RVAMPO, and one representative from the volunteer non-profit group Pathfinders for Greenways. In addition, there are non-voting ex officio members. 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

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throughout the Roanoke Valley.”

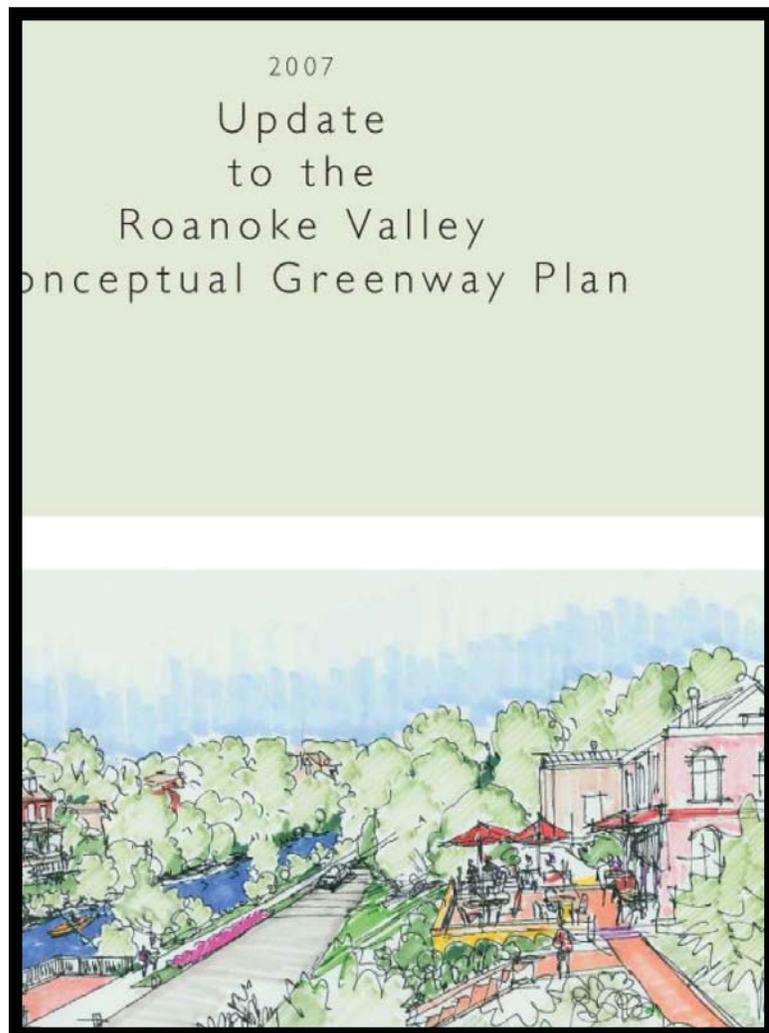
In accordance with the Intergovernmental Agreement, the Greenway Commission’s responsibilities are to encourage incorporation of greenways into each jurisdiction’s planning efforts, explore greenway opportunities, make recommendations on legislation, investigate funding and grants, recommend standards, pursue partnerships, and coordinate the efforts of the federal, state, and local governments involved.

### **2007 UPDATE OF THE ROANOKE VALLEY CONCEPTUAL GREENWAY PLAN**

The 2007 Update to the Roanoke Valley Conceptual Greenway Plan, an update to the original Conceptual Greenway Plan (1995) was adopted by all four local governments and the Roanoke Valley Area Metropolitan Planning Organization in 2007. Additionally, the Greenway Plan is cited in a range of local, regional, and state planning documents and publications, and the Roanoke River Greenway is included in the MPO Transportation Improvement Program (TIP), the Virginia State Transportation Improvement Program (STIP), and the Virginia Outdoors Plan.

### **THE ROANOKE VALLEY GREENWAY NETWORK**

Currently the Roanoke Valley Greenway network consists of more than 25 miles of greenways. The 2007 Update cited the Roanoke River Greenway as the number one priority by all four Greenway Commission governments. The Regional Commission has developed and maintains an interactive Roanoke Valley Greenways map as well as printable (PDF) maps of individual greenways within the network. The Interactive Greenway map is available at [www.greenways.org](http://www.greenways.org)

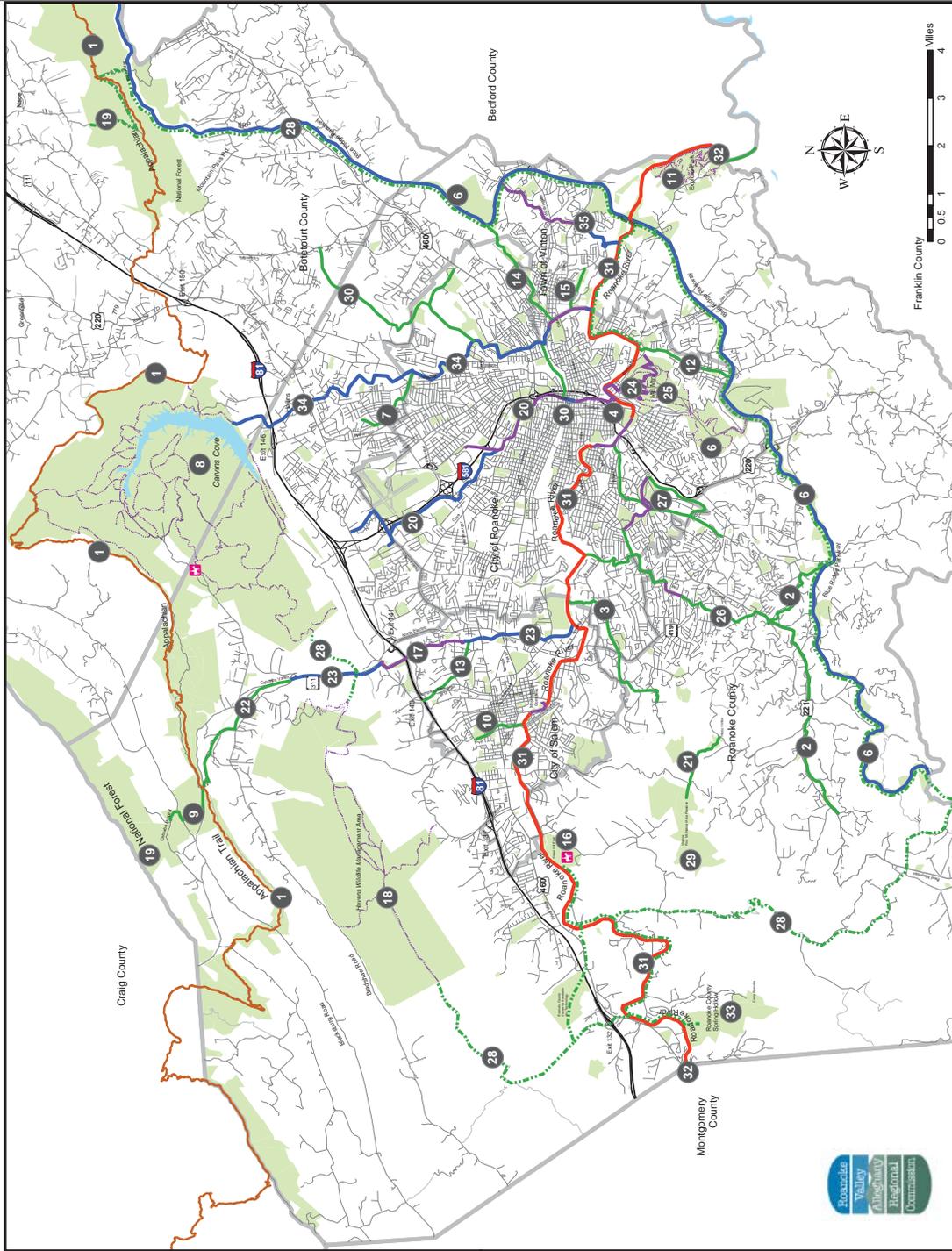




More than 125 citizens participated in the first 2007 Conceptual Greenway Plan update public meeting

Roanoke Valley Greenway Network				
PROJECT NAME	Plan #	Localities	Priority	Class
Appalachian Trail*	1	Roanoke County	4	C
Back Creek Greenway	2	Roanoke County	4	B-C
Barnhardt Creek Greenway	3	Roanoke County, City of Roanoke	4	A-B-C
BioMed Loop	4	City of Roanoke	3	A
Birding and Wildlife Trail Sites	5	All	4	A-B-C
Blue Ridge Parkway Trails*	6	Roanoke County, City of Roanoke	2	C
Carvin Creek Greenway	7	Roanoke County	4	A-B
Carvins Cove Trail Network	8	City of Roanoke	2	C
Catawba Greenway	9	Roanoke County	4	B-C
Dry Creek Greenway	10	Salem	4	A-B
Explore Park Trails	11	Roanoke County	4	B-C
Garden City Greenway (Garnand Branch)	12	City of Roanoke	3	A-B
Gish Branch Greenway	13	Salem	4	B-C
Glade Creek Greenway	14	Roanoke County, Vinton	3	A-B-C
	14	City of Roanoke	4	A-B
Gladetown Trail	15	Vinton	3	C
Green Hill Park Trails	16	Roanoke County	4	B-C
Hanging Rock Battlefield Trail	17	Roanoke County, Salem	2	B-C
Havens Wildlife Management Area Trails+	18	Roanoke County	4	C
Jefferson National Forest Trails*	19	Roanoke County	4	C
Lick Run Greenway	20	City of Roanoke, Roanoke County	2	A
Long Ridge Trail	21	Roanoke County	4	C
Masons Cove Greenway	22	Roanoke County	4	B-C
Mason Creek Greenway	23	Salem, Roanoke County	2	A-B
Mill Mountain Greenway	24	City of Roanoke	2	A
Mill Mountain Park Trails	25	City of Roanoke	2	C
Mudlick Creek Greenway (& Garst Mill)	26	Roanoke County, City of Roanoke	3	A-B
Murray Run Greenway	27	Roanoke County	4	B-C
	27	City of Roanoke	3	B-C
Perimeter Trail	28	Roanoke & Botetourt Counties	4	C
Poor Mountain Preserve Trails+	29	Roanoke County	4	C
Read Mountain Trails	30	Roanoke County	3	C
Roanoke River Greenway	31	All	1	A-B-C
Roanoke River Greenway Extensions	32	Franklin, Montgomery Counties	4	A-B-C
Spring Hollow Trails	33	Roanoke County	4	C
Tinker Creek Greenway	34	City of Roanoke, Roanoke County	2	A-B-C
Wolf Creek Greenway	35	Roanoke County, Vinton	2	B
*Federal Jurisdiction	Class A=	Paved with asphalt or concrete (See Section 2.4.2)		
+State Jurisdiction	Class B=	Crushed aggregate stone or wood chips		
	Class C=	Natural surface, wood chips, or crushed stone		

# Roanoke Valley Conceptual Greenway Plan



## LEGEND

- 1- Roanoke River (Priority 1)
- 2- Priority 2 Greenways
- 3- Priority 3 and 4 Greenways
- 4- Proposed Multi-Use Route
- 5- Appalachian Trail
- 6- Existing Greenways
- 7- Existing Trails
- 8- Equestrian Facility
- 9- Greenway Number
- 10- Public Lands

- 1- Appalachian Trail
- 2- Back Creek Greenway
- 3- Barnhart Creek Greenway
- 4- BioMed Loop
- 5- Birding and Wildlife Trail Sites
- 6- Blue Ridge Parkway Trails
- 7- Carvin Creek Greenway
- 8- Carvin Cove Trail Network
- 9- Catawba Greenway
- 10- Dry Creek Greenway
- 11- Explore Park Trails
- 12- Garden City Greenway (Garnand Branch)
- 13- Gish Branch Greenway
- 14- Glade Creek Greenway
- 15- Gladestown Trail
- 16- Green Hill Park Trails
- 17- Hanging Rock Battlefield Trail
- 18- Havens Wildlife Management Area Trails
- 19- Jerlerson National Forest Trails
- 20- Lick Run Greenway
- 21- Long Ridge Trail
- 22- Masons Cove Greenway
- 23- Mason Creek Greenway
- 24- Mill Mountain Greenway
- 25- Mill Mountain Park Trails
- 26- Mudlick Creek Greenway (& Garst Mill)
- 27- Murray Run Greenway
- 28- Perimeter Trail
- 29- Poor Mountain Preserve
- 30- Read Mountain Trails
- 31- Roanoke River Greenway
- 32- Roanoke River Greenway Extensions
- 33- Spring Hollow Trails
- 34- Thicker Creek Greenway
- 35- Wolf Creek Greenway



May 2007  
Roanoke Valley Allegheny Regional Greenway Commission

## Regional Greenway and Trail User Count Program

The Regional Commission's Regional Greenway and Trail Users Count Program was initiated in 2010 with the goal of providing quantitative data on greenways and trails use (i.e., trail counts) in the region. Once collected, use data are shared with local governments, the Greenway Commission, media, and other stakeholders to assist in greenway planning, funding, maintenance, and promotion, and public relations efforts. Additionally, trail use data are being shared with the National Bicycle & Pedestrian Documentation Project, a nationwide effort that provides a consistent model of data collection and ongoing data for use by planners, governments, and bicycle and pedestrian professionals.

The Regional Greenway and Trail Users Count Program utilizes both TRAFx and Trail Master infrared counters, as well magnetic counters for counting cyclists. Currently, trail counters are in place in the following locations on the Roanoke River Greenway:

- Roanoke River Greenway - Riverside Drive (City of Salem)
- Roanoke River Greenway - River's Edge Sports Complex (City of Roanoke)
- Roanoke River Greenway –Bennington Avenue (City of Roanoke)

Additionally, trail counts have been conducted on the following greenways:

- Murray Run Greenway (City of Roanoke)
- Lick Run Greenway (City of Roanoke)

Beyond greenways, counters are currently in place on the following trails:

- Appalachian Trail (between Route 311 and McAfee's Knob) (Roanoke County)
- Carvins Cove Natural Reserve (City of Roanoke) – magnetic mountain bike counter and infrared counter

Year	Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT	Days with data	Total
2010	Appalachian Trail 311/McAtee's Knob Trailhead							1,308	1,602	2,154	3,300	1,966	226	58,716	169	21,431
	Carvins Cove									716	1,215	1,027		35,417	60	12,927
	Lick Run Greenway Southern End					1,590	1,386							47,355	31	17,285
	Murray Run Greenway					2,095	2,321							61,000	15	22,265
	Roanoke River Bennington									6,652	8,441	5,180	1,629	179,525	122	65,526
	Roanoke River Greenway					20,042	20,366	19,458	20,949	22,437	19,356	13,088	4,006	564,531	228	206,054
2011	Appalachian Trail 311/McAtee's Knob Trailhead	879	1,585	1,570	2,512	1,804								54,696	125	19,964
	Roanoke River Bennington	2,626	4,101	5,851	8,345	8,124	6,285							192,588	153	70,295
	Roanoke River Greenway	7,740	6,515	2,108	12,465	13,425	9,655							283,272	151	103,394
	Roanoke River Riverside		4,482	4,577	7,315	6,888								196,908	109	71,872

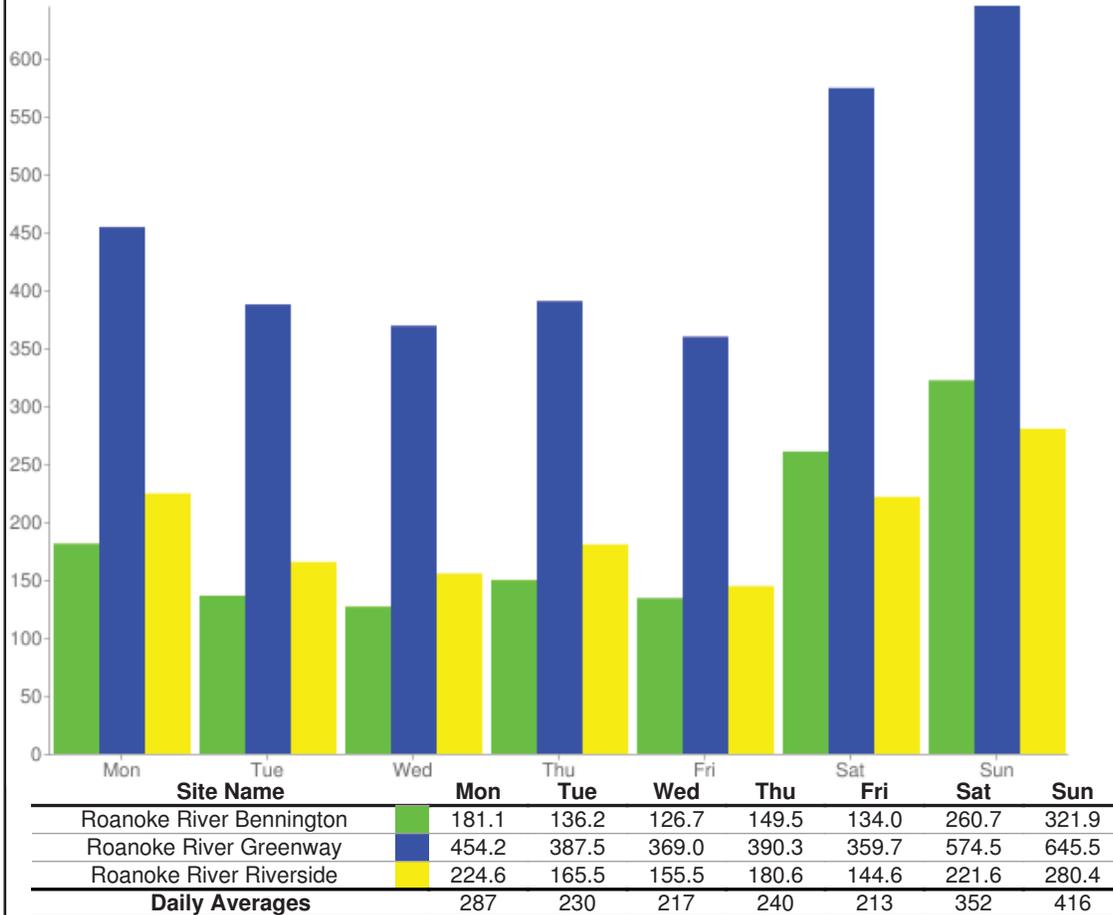
## Days of the week

From 2010-05-20 to 2011-06-04

Report generated on 2011-06-08 12:11:19 (UTC -06:00) by rvarc@rvarc.org

[TRAFx DataNet \(http://www.trafx.net/\)](http://www.trafx.net/)

Daily averages



A = adjustment applied, D = divide by 2 applied, F = filtering applied