

# COMMUNITY FACILITIES





## 5.1 Overview



Roanoke County has an abundant amount of infrastructure and resources available to accommodate the needs of the community. This chapter details the specific information related to the facilities available to Roanoke County residents. These facilities include all public buildings such as 27 public schools spanning grades K-12; six libraries; the Roanoke County Administration Center; the Roanoke County Social Services Building and Roanoke County Jail located in Downtown Salem; the Western Virginia Regional Jail; the 15 fire and rescue response stations employing nearly 200 full-time personnel supported by approximately 200 active volunteers; the Roanoke Valley Regional Fire-EMS Training Center; and the Public Safety Center which houses the Police Department, Criminal Justice Academy, Fire and Rescue Department Headquarters, Information Technology, Emergency Communications Center, and the Emergency Operations Center. In addition, Roanoke County General Services operates curbside trash which is provided each week to Roanoke County residents and businesses. Roanoke County currently offers several recycling drop-offs at six convenient locations.

Lastly, Roanoke County Parks, Recreation and Tourism (PRT) is also a component of the community facilities available for public use. The PRT Department operates a wide variety of facilities and parks including Green Ridge Recreation Center, Splash Valley Water Park, Explore Park, Green Hill Park, Brambleton Center, and many other facilities, parks, and greenways.

## 5.2 Schools



Roanoke County Public Schools (RCPS) is the largest suburban school division in the region, with 27 schools: 16 elementary, 5 middle, 5 high, and one specialty school – Burton Center for Arts and Technology. Roanoke County Public Schools total enrollment (2021-2022) was 13,731 students and its Administrative Offices are located at 5937 Cove Road. RCPS consistently ranks among the

best in Virginia on student achievement metrics and all are fully accredited by the Virginia Board of Education. The map on page 5-3 shows the location of the existing 26 public schools in Roanoke County as well as the proposed Career and Technical Education (CTE) facility which will replace the Burton Center for Arts and Technology (BCAT).

### Student Demographics (2021-2022)

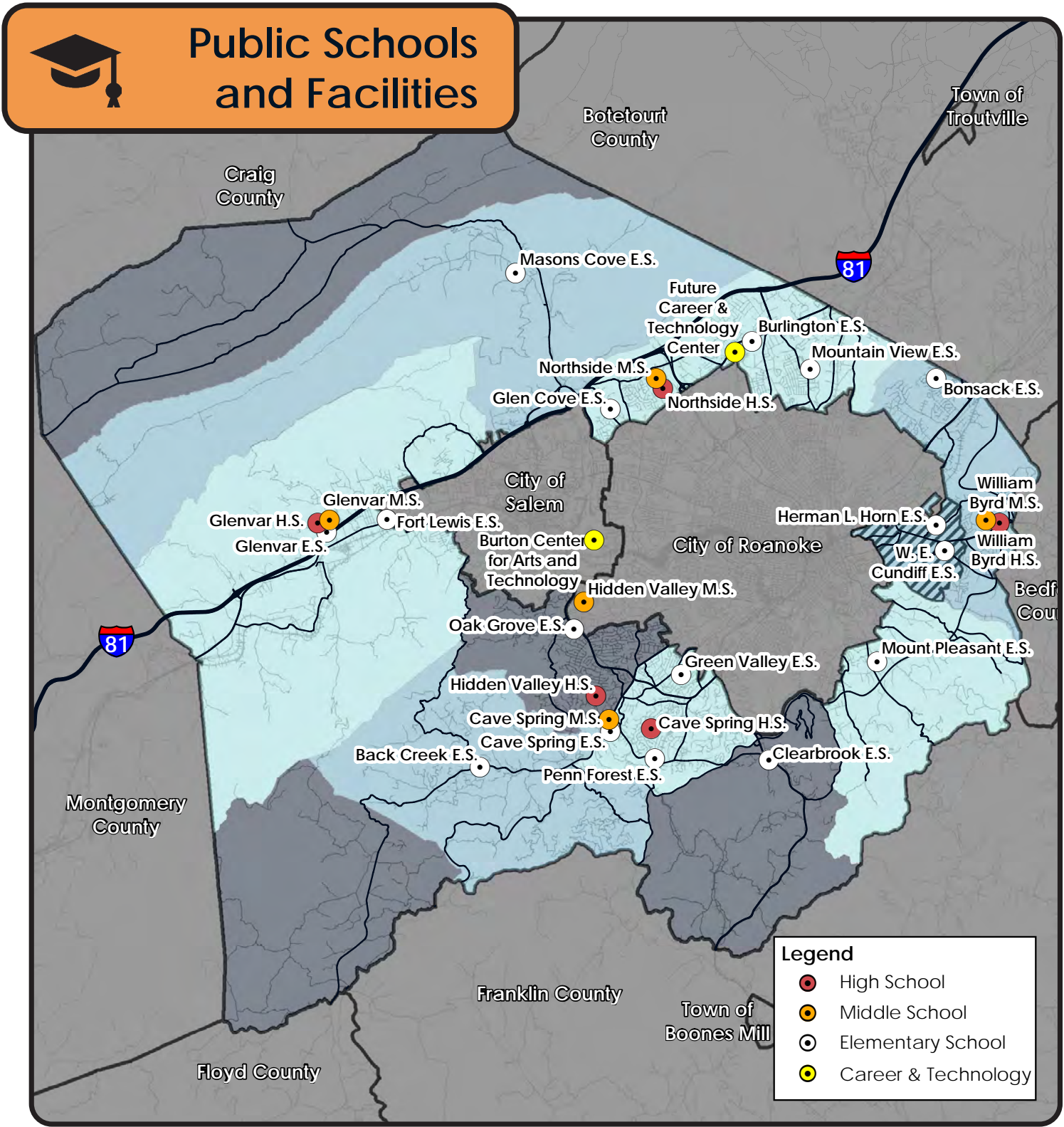
American Indian or Alaska Native: 0.1%  
 Asian: 4.3%  
 African American: 7.9%  
 Hispanic: 7.5%  
 Native Hawaiian or Pacific Islander: 0.1%  
 Non-Hispanic, two or more races: 5.6%  
 White (not of Hispanic origin): 74.6%  
 Special Education: 16.1%

Source: Roanoke County Public Schools

### RCPS Capital Maintenance Program

The School Board operates the largest networked organization in the Roanoke Valley with connections to/from 32 physical buildings, totaling approximately 2.6 million square feet with a current average age of 52 years. Included in that total are sixteen elementary schools, five middle schools, five high schools, and one specialty high school. Other facilities include administration, transportation, warehouse, technology, and maintenance buildings.

As part of the RCPS CIP, \$0.42 million is budgeted in FY 2023 and \$1.00 million is budgeted annually from FY 2024 through FY 2032 for capital maintenance projects at RCPS facilities. This funding will provide for the completion of projects including but not limited to HVAC improvements, roofing repairs, window replacements, and other infrastructure improvements and preventative maintenance which will extend the useful life of RCPS facilities and help avoid costly as-needed repairs which are often more expensive than providing planned infrastructure improvements. These projects are funded with \$9.42 million in RCPS cash sources over the life of the ten-year plan.





School Facilities							
School Name	Address	Year Built	Square Feet	Last Renovation	Enrollment (2021-2022)	Capacity	Capacity Percent
Burton Center for Arts & Technology	1760 Roanoke Boulevard	1962	89,128	N/A	N/A	N/A	N/A
Back Creek Elementary	7130 Bent Mountain Road	1937	48,600	1994	284	349	81%
Bonsack Elementary	5437 Crumpacker Drive	1999	57,450	2005	323	428	75%
Burlington Elementary	6533 Peters Creek Road	1939	86,634	2012	450	525	86%
Cave Spring Elementary	5404 Springlawn Avenue	1961	63,400	2010	488	501	97%
Cave Spring High	3712 Chaparral Drive	1968	162,100	2021	1,024	1,190	86%
Cave Spring Middle	4880 Brambleton Avenue	1956	132,365	2012	775	952	81%
Clearbrook Elementary	5205 Franklin Road	1938	44,000	1999	336	354	95%
Ft. Lewis Elementary	3115 W. Main Street	1928	33,900	1996	255	252	101%
Glen Cove Elementary	5901 Cove Road	1971	60,000	N/A	407	470	87%
Glenvar Elementary	4507 Malus Drive	1959	52,300	N/A	341	420	81%
Glenvar High	4549 Malus Drive	1969	148,984	2015	623	755	83%
Glenvar Middle	4555 Malus Drive	1996	101,600	2001	440	619	71%
Green Valley Elementary	3838 Overdale Road	1964	42,100	2010	539	517	104%
Herman L. Horn Elementary	1002 Ruddell Road	1961	47,140	2004	403	501	80%
Hidden Valley High	5000 Titan Trail	2002	201,000	N/A	821	1,251	66%
Hidden Valley Middle	4902 Hidden Valley School Road	1972	119,800	N/A	557	952	59%

School Facilities							
School Name	Address	Year Built	Square Feet	Last Renovation	Enrollment (2021-2022)	Capacity	Capacity Percent
Mason Cove Elementary	3370 Bradshaw Road	2011	51,700	N/A	203	270	75%
Mountain View Elementary	5901 Plantation Circle	1959	44,250	2004	322	483	67%
Mt. Pleasant Elementary	3216 Mt. Pleasant Boulevard	1934	65,000	2010	251	412	61%
Northside High	6758 Northside High School Road	1961	153,200	2008	913	1,217	75%
Northside Middle	6810 Northside High School Road	1970	110,000	N/A	657	993	66%
Oak Grove Elementary	5005 Grandin Road Extension	1959	46,440	2004	406	467	87%
Penn Forest Elementary	6328 Merriman Road	1972	65,050	N/A	436	504	87%
W.E. Cundiff Elementary	1200 Hardy Road	1972	62,000	N/A	503	585	86%
William Byrd High	2902 Washington Avenue	1969	183,200	2024	1,107	1,107	100%
William Byrd Middle	2910 Washington Avenue	1988	145,600	N/A	867	938	92%
Total	N/A	N/A	N/A	N/A	13,731	17,012	81%

## Renovation and Modernization Projects – Facilities Use and Condition Assessment & Demographic Study

During fiscal year 2016, the RCPS School Board funded a facilities use and conditions assessment study to help identify and plan for future facility renovation and modernization projects. The study reviewed all major systems in the facilities (HVAC, electrical, roofing, lighting, etc.) and identified the scope of renovations needed to restore the building to optimum operating condition. This assessment has helped inform some of the prioritization of projects in the FY 2023-2032 CIP.

Additionally, a demographics study to determine

future projected enrollment for each educational facility was also completed in fiscal year 2016. School buildings are used today in vastly different ways than they were over 40 years ago. Some programs did not exist then (certain special education services, technology, lab space, etc.) and older buildings may not be providing efficient program space. Likewise, the space needed for today's programs impacts the student capacity in each building. The study indicated how RCPS is using school space for current programs and projected student and population trends by school and grade. With the information from this study, the School Board is able to better predict building renovations required based on programming and student enrollment.



Information from both the Facility Use and Condition Assessment Study and the demographics study, along with School Board project prioritization were utilized in developing the RCPS fiscal year 2023-2032 Capital Improvement Program.

### Upcoming Major Capital Projects

The Roanoke County Board of Supervisors announced it will provide Roanoke County Public Schools (RCPS) \$130 million to fund a new Career and Technical Education (CTE) Center and make improvements to two elementary schools. RCPS identified the critical needs for a new CTE Center in Roanoke County, as well as renovations to W.E. Cundiff Elementary School and Glen Cove Elementary School.

The current CTE Center, BCAT, must turn away students each year due to capacity issues. Our business community has shared their desires for well-trained students to enter the workforce immediately. A new CTE facility will expand the programs offered, provide more opportunities for students and meet the needs of our business community. Ensuring children’s success and sustaining our local economy is critical.

W.E. Cundiff and Glen Cove Elementary Schools were also identified as schools in need of renovations to help facilitate learning. The Board of Supervisors agreed there are issues at these two schools and improvements to the open-classroom spaces are needed.

The Board of Supervisors will provide \$80 million to be utilized for the new CTE Center and \$50 million to be utilized for improvements to Glen Cove and W.E. Cundiff Elementary Schools. Planning has been underway for the three projects, including recommendations from renovation studies for the elementary schools and the purchase last year of 28-acres of land to build the new CTE facility.



Cave Spring High School



William Byrd High School



Northside High School

### 5.3 Libraries



The Roanoke County Public Library System is a community information and lifelong learning center which provides citizens with the resources to help them develop their intellectual, economic, cultural, and educational potential. Roanoke County Public Library facilities include the South County Library Headquarters, Glenvar Library Branch, Hollins Library Branch, Vinton Library Branch, Bent Mountain Library Branch, and Mount Pleasant Library Branch. The map on page 5-9 shows the location of the existing six public libraries in Roanoke County.

### Services and Programming

Roanoke County Public Library facility and virtual offerings include a variety of services offered to the public ranging from technological services such as 3D printing, robotics, stargazing telescope, high-speed internet, and virtual learning environments to adult programming such as blind date book meets to meeting spaces such as study rooms as well as business and party rental spaces. Additional services for children and

families includes 1,000 books before kindergarten, at-home activities, launchpads, parent & caregiver resources, programs, storytime, tumble books, and virtual resources, while middle & highschoolers programming includes reading lounge, creative corner, the arena, learning lab, recharging station, writing playground, and tablets and computers.

### Trends/Issues/Future Needs

- In-person visitors have been steadily decreasing over the past several years, reflecting a national trend. Library use tends to be the highest in slow economies.
- Program attendance has been steadily increasing over the past several years.
- Many patrons today are primarily electronic users, therefore when looking at the numbers for former and current users, e-location has become more prevalent with modern technology and broadband internet service expansion.

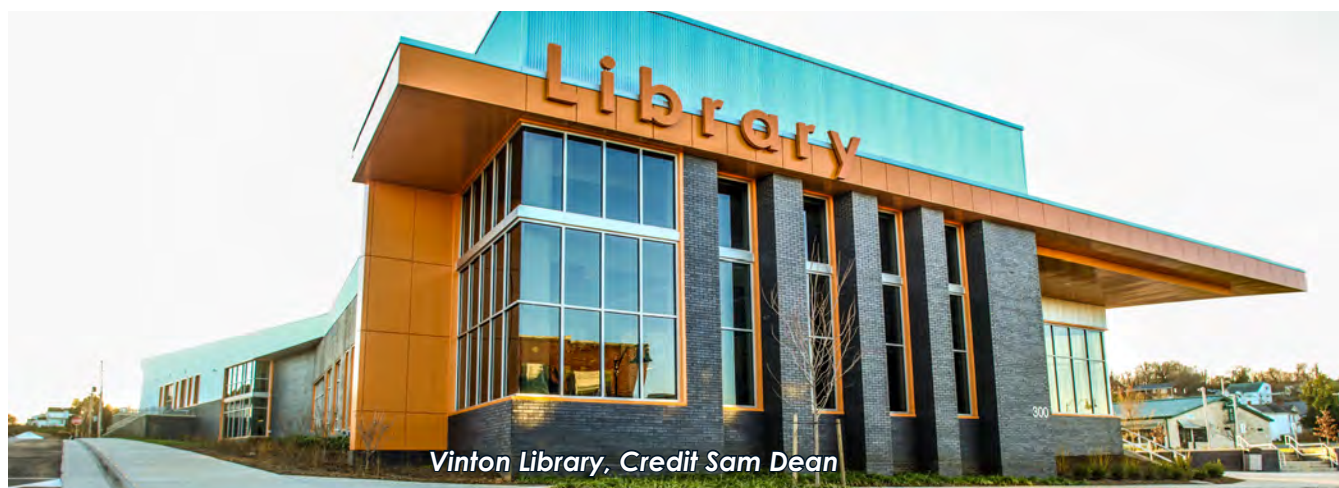
Library Facilities					
Name	Address	Year Opened	Square Feet	Total Acres	Amenities
Bent Mountain Library Branch	10148 Tinsley Lane	2010	850	5.3	Meeting Space, Gymnasium, Walking Trail, Courtyard, Picnic Area, Playground
Glenvar Library Branch	3917 Daugherty Road	2013	15,150	3.4	Meeting Rooms, Study Rooms, Computer Lab, Outdoor Patio
Hollins Library Branch	6624 Peters Creek Road	1970	17,670	1.9	Meeting Rooms, Study Rooms, Conference Room, Computer Lab
Mount Pleasant Library Branch	2918 Jae Valley Road	2009	1,480	1.9	Meeting Space, Outdoor Patio
South County Library Branch	6303 Merriman Road	2012	54,000	26.5	Meeting Rooms, Study Rooms, Computer Lab, Auditorium, Outdoor Patio, Walking Trails
Vinton Library Branch	300 S. Pollard Street	2015	21,820	2.1	Meeting Rooms, Computer Lab, Study Rooms, Conference Room, Outdoor Patio



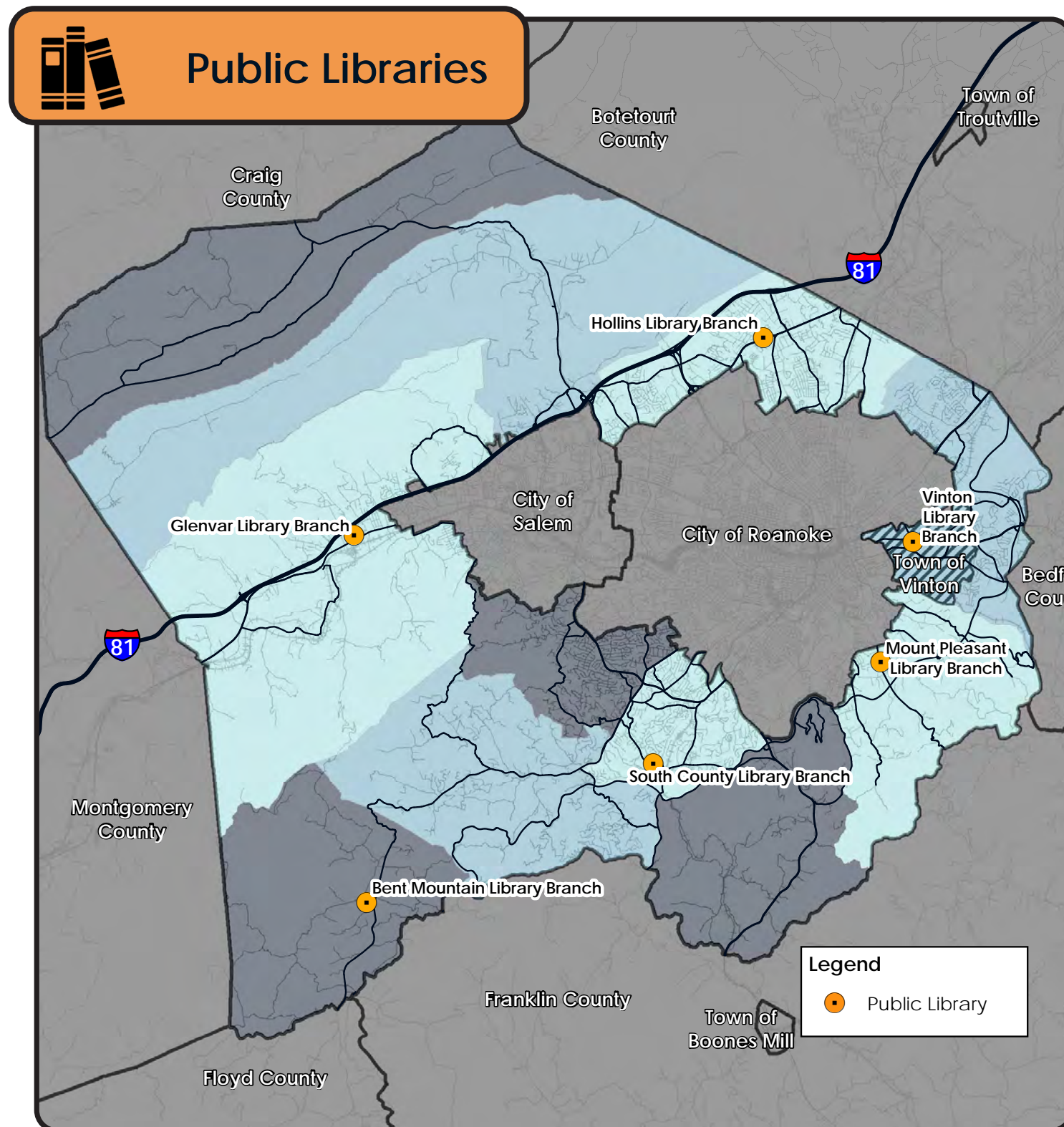
- Glenvar Library and South County have plenty of room and the design of each is sufficient for the patrons who use them.
- Vinton Library could use more open space and maybe another meeting room (or study rooms), though the square footage is sufficient.
- Bent Mountain Branch and Mount Pleasant Branch have been renovated in recent years to provide more meeting room and programming space, however, the building adjacent to the Mount Pleasant Library is currently being used for storage with plans to use as additional meeting space in the coming years.
- Hollins Library was built in 1970 and is centrally located in the Hollins Center and serves a majority of northern Roanoke County including the Masons Cove area. While the square footage is currently adequate, the Hollins Library Replacement Project Study suggests a need for more space to allow for a better layout and more modernized amenities such as meeting room space, programming areas, and quiet study rooms. The Hollins Library is also located on the smallest lot by acreage when compared to the other five branch locations which limits the ability to provide sufficient parking or additional amenities to the community. These outdoor amenities were discussed

in the community survey which suggested a desire for walking paths or outdoor gathering spaces such as a covered patio which was the highest rated choice in the survey. The Hollins area is most in need of a new library branch and is currently in the process of determining the best options moving forward.

- Smaller storefront options may be good to try as pilot locations for drop-off locations. For example, this interest has been expressed the most to library staff by residents in the Oak Grove area. They hear from patrons there that want to drop off books but that South County Library and Glenvar Library are too far in either direction.
- The library staff is currently analyzing areas using GIS that lack user visitorship in Roanoke County by determining where there are gaps in library accessibility and factoring in various demographic information to create a clearer picture of future needs. They are also looking at determining the various resources and materials most in use based on users of the library branches. For example, libraries in more urban areas may attract more family-oriented options with more technological opportunities where internet is best as opposed to more rural areas that may focus on more adult programming or in-person options negating the need for more online services.



## Public Libraries





## 5.4 Parks, Recreation and Tourism



Roanoke County Parks, Recreation and Tourism operates Green Ridge Recreation Center, Splash Valley Water Park, Explore Park, Green Hill Park, Brambleton Center, and many other facilities, parks, and greenways. The Parks, Recreation, and Tourism administrative offices are currently located at 1206 Kessler Mill Road.

### Programming

Roanoke County Parks, Recreation and Tourism offers a wide range of programming for citizens to move, splash, learn, and explore. These include activities ranging from aerobic, anaerobic, and aquatic exercise of the body to learning-based exercise of the mind. Some of these non-aquatic forms of exercise include sports clinics, group exercise, yoga, martial arts, personal training, running, and health clinics with aquatic activities including swimming lessons, aquatic exercise, lifeguard training, and private swimming lessons. Some additional activities that are offered aside from exercise include cooking, crafts, dance, dog training, senior group activities, painting, drawing, pottery, and ceramics.

In addition, there are an abundance of outdoor recreation opportunities for citizens and visitors of all ages to explore and enjoy ranging from nature education, nature hikes, outdoor adventures, and travel trips. Summer camps are also available for patrons including Kids in Camp (K.I.C.), Discovery Day Camp at Camp Roanoke, Explore Park Day Camp, Pre-K Enrichment Camp at Brambleton Center, and other athletics camps.

There are also a variety of youth and adult sports available for Roanoke County residents. Residents ages 6 to 18 may participate in youth leagues as the department offers summer programs in every major sport to keep kids active while school is out. After School for Kids (ASK) is an alternative youth recreation program where children in grades K-5 can have fun while learning through

age-appropriate activities that foster physical, social, emotional, and cognitive development. ASK is currently available at 13 Roanoke County Public Schools elementary schools. As an additional community service, the Roanoke County Parks, Recreation and Tourism Department assists with the promotion of adult lifetime and team sport opportunities to residents of Virginia’s Blue Ridge which include: Curling (Curl Roanoke); Cricket (Roanoke Valley Cricket Club); Disc Golf (Roanoke Disc Golf Club); Ice Hockey (Roanoke Valley Adult Hockey Association); Mountain Biking (Blue Ridge Off-Road Cyclist); Roller Derby (Twin Valleys Roller Derby); Rugby (Roanoke Rugby Football Club); Running (Star City Striders and Mountain Junkies LLC); Soccer (Valley AFC); Softball (USA Softball); Tennis (Roanoke Valley Tennis Association); Ultimate Frisbee (Roanoke Ultimate); and Volleyball (Roanoke Valley Volleyball Association). The organizations listed above are private community organizations and are operated independently from Roanoke County.

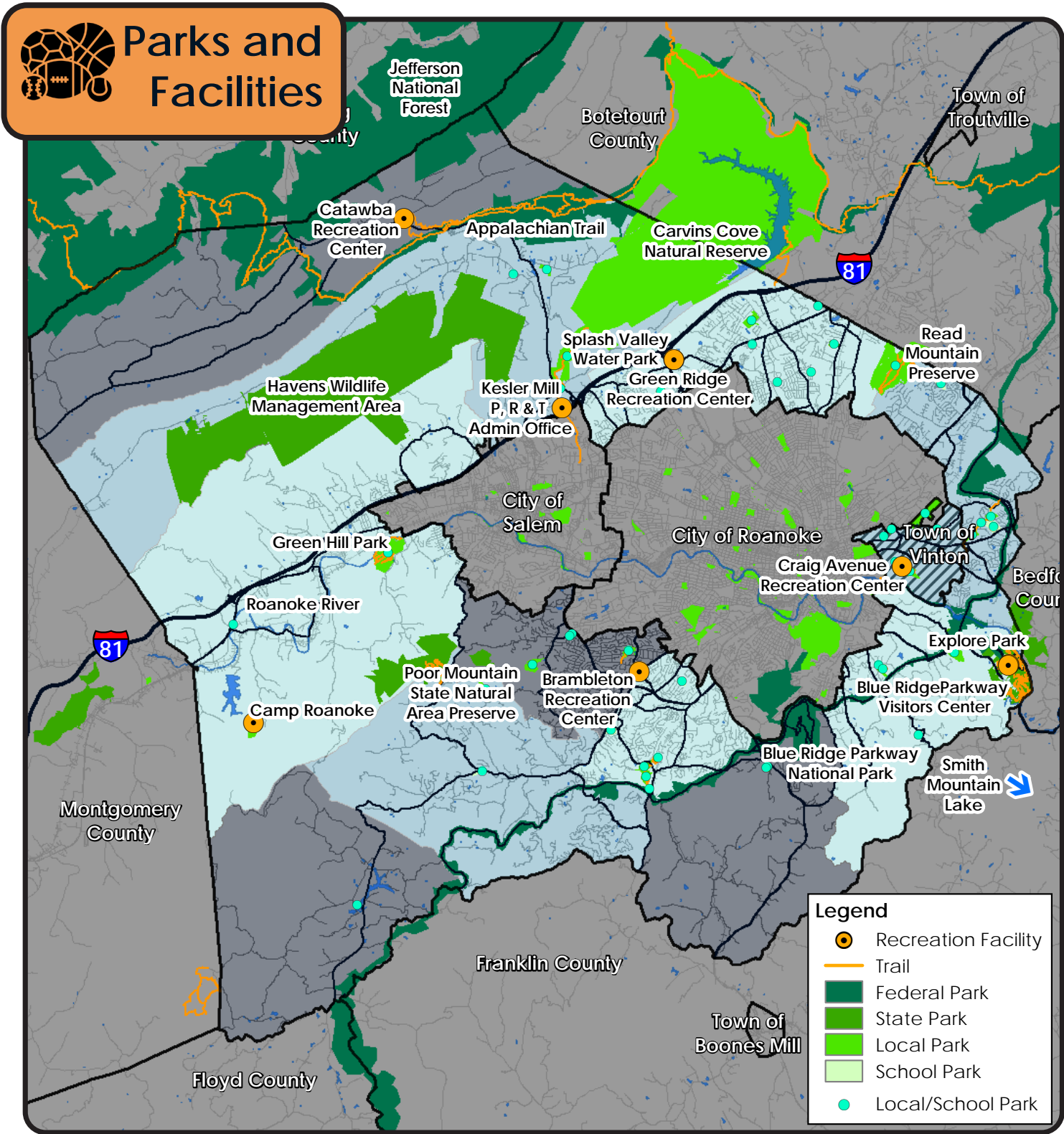
Therapeutic Recreation Services of the Roanoke Valley has been empowering people with disabilities for over 50 years by assisting them in gaining knowledge and skills for the development of a quality leisure lifestyle to meet their interests and needs. Therapeutic Recreation Services continues to be the leading agency in government-guided, community-based therapeutic recreation within Roanoke County and across the greater Roanoke Valley.

Lastly, there are additional unique activities available to the public which help to draw tourism opportunities from all over the state, region, and world. Examples of some of these include Illuminights at Explore Park; Summer Concert Series at the Explore Park Tavern Stage; Touch-a-Truck at Green Hill Park; Blue Ridge Kite Festival at Green Hill Park; Splash Nights at Splash Valley; Ironman 70.3 across the Roanoke Valley and hundreds of other smaller facility events year-round.

Parks, Recreation and Tourism Facilities		
Name	Address	Amenities
Arnold R. Burton Complex	1760 Roanoke Boulevard	Baseball/Softball Fields, Picnic Areas, Restrooms
Bent Mountain Center and Park	10148 Tinsley Lane	Community Center, Kitchen, Open Space Park, Picnic Shelter
Blue Ridge Parkway Visitor Center	56 Roanoke River Parkway Road	Auditorium, Gift Shop, Meeting Rooms, Museum, Restrooms
Bonsack Park	5435 Crumpacker Road	Baseball/Softball Fields, Picnic Shelters, Picnic Tables, Playground
Brambleton Recreation Center	3738 Brambleton Avenue	Audio/Visual Equipment, Classrooms, Kitchen, Lounge, Pottery Studio, Presentation Screens
Brookside Park	20 Verndale Drive	Baseball/Softball Fields, Grills, Picnic Shelters/Tables, Playground, Portable Toilets, Soccer Field
C. Darrell Shell Park	6328 Merriman Road	Grills, Picnic Shelters/Tables, Playground, Restrooms, Tennis Courts, Paved Trails
Camp Roanoke	6498 Dry Hollow Road	Athletic Fields, Cabins, Challenge Course, Climbing Wall, Picnic Shelter
Catawba Center	4965 Catawba Creek Road	Basketball Court, Kitchen, Open Lawn Area, Picnic Shelters, Playground, Restrooms
Clearbrook Park	5381 Tall Pine Road	Baseball/Softball Fields, Basketball Court, Grills, Picnic Shelters/Tables, Playground, Tennis Court
Explore Park	56 Roanoke River Parkway	Fishing Access, Gift Shop, Hiking Trails, Ziplining, Disc Golf Course, Museum, Open Lawn Area, Picnic Shelters/Tables, Restrooms
Garst Mill Park and Greenway	2699 Willowlawn Street	Baseball/Softball Fields, Basketball Court, Creek, Grills, Picnic Shelters/Tables, Playground, Restrooms, Soccer Field, Tennis Court, Pickleball Court, Trails
Gearhart Park	350 Highland Avenue	Baseball/Softball Fields
Glade Creek Park	401 Gus Nicks Boulevard	Multi-Purpose Fields
Goode Park	5904 Goode Park Road	Baseball/Softball Fields, Parking, Picnic Areas, Restrooms, Soccer Field, Trails
Green Hill Park	2500 Green Hill Park Road	Multi-Purpose Fields (Football, Soccer, Baseball/Softball), Fishing Access, Grills, Hiking Trails, Open Lawn Area, Picnic Areas, Playground, Restrooms
Green Ridge Recreation Center	7415 Wood Haven Road	Gym, Indoor Pool, Walking Track, Water Park, Pickleball Court, Classrooms
Happy Hollow Gardens	6697 Mount Chestnut Road	Amphitheater, Grills, Picnic Shelters/Tables, Trails



Parks, Recreation and Tourism Facilities		
Name	Address	Amenities
Hinchee Park	1918 Dutch Oven Road	Picnic Tables, Hiking Trails, Horseback Riding Trails
Hollins Park	5688 Hollins Road	Playground, Soccer Field, Trails
Jae Valley Park	3963 Jae Valley Road	Fishing Access, Hiking Trails, Picnic Tables
M. A. Banks Park	211 Craig Avenue	Basketball Court, Grills, Picnic Areas, Playground
Mayflower Hills Park	3319 Rutrough Road	Disc Golf Course, Grills, Picnic Areas, Playground
Merriman Soccer Complex	6657 Merriman Road	Multi-Purpose Fields, Grills, Picnic Shelters, Restrooms, Trails
Mount Pleasant Park	3071 Pitzer Road	Multi-Purpose Fields, Basketball Court, Grills, Trails, Playground, Picnic Area, Tennis Court, Restrooms
Northside Softball Complex	6810 Northside High School Road	Baseball/Softball Fields
Oak Grove Park	5005 Grandin Road Extension	Baseball/Softball Field, Picnic Shelters/Tables, Restrooms, Playground, Pickleball Court, Trails
Parks, Recreation & Tourism Administration Building	1206 Kessler Mill Road	N/A
Read Mountain Preserve	6101 Crumpacker Road	Hiking Trails
Sadler Park	8166 Emerald Lane	Basketball Court, Picnic Shelter/Tables, Playground
Splash Valley Water Park	7415 Wood Haven Road	Water Park, Picnic Areas
Starkey Park North and South	5701 Crystal Creek Drive	Baseball/Softball Fields, Grills, Picnic Shelters, Playground, Restrooms, Multi-Purpose Fields, Trails
Stonebridge Park	420 Swan Drive	Basketball Court, Grills, Picnic Shelters/Tables, Playground, Pickleball Court, Restrooms, Trails
Vinyard Park East and West	404 Berkley Road	Multi-Purpose Fields (Football, Soccer, Baseball/Softball), Grills, Hiking Trails, Open Lawn Area, Picnic Areas, Playground, Restrooms
Walrond Park	6824 Walrond Drive	Multi-Purpose Fields, Fireplace, Disc Golf, Grills, Hiking Trails, Picnic Shelters, Playground, Restrooms, Tennis Court, Pickleball Court
Wayside Park	5880 West Main Street	Boat Launch, Picnic Area
Whispering Pines Park	3551 Absalom Smith Road	Multi-Purpose Fields, Basketball Court, Grills, Trails, Playground, Picnic Area, Tennis Court, Restrooms





### Explore Park Adventure Plan

In 2013, Roanoke County assumed responsibility for the stewardship of the 1,100-acre Explore Park property (700 acres in Roanoke County and 400 acres in Bedford County), and the development of recreational amenities for public enjoyment of the Park. Starting in 2013, by signing a 99-year lease with the Virginia Recreational Facilities Authority (VRFA), the Roanoke County Parks, Recreation and Tourism Department led a master plan effort to provide strategic guidance for the actions that would be taken over the next twenty years. The plan was prepared by Wallace Roberts & Todd, LLC with Balzer and Associates, Inc. and Pros Consulting, LLC. The Board of Supervisors approved the plan in June of 2016.

The Explore Park Adventure Plan provides Roanoke County, its residents, and its visitors with a long-term strategy to improve the recreational, environmental, and economic potential of the Park’s 1,100 acres. The plan sets out a vision for the Park and describes the background from which the plan was derived, the organization of the Park, its proposed development, recreational and infrastructural features and systems, and its component projects. Supplemental reports to this document also include phasing and prioritization based on a business plan, an inventory of the Park’s existing natural and cultural features, and a record of the public engagement process that formed the plan. The Executive Summary provides a high-level overview of the project. The Overview describes organizing principles and the physical and programmatic structure of the Park and its component parts and systems. Understanding Explore Park provides background information on the Park, the recreational programming, and its infrastructural and environmental management. Adventure Concepts describes in detail the approach to the facility development program and systems of the Park. Explore Park Adventure Plan describes in detail the features and systems of the Park. The Park Development Areas describes the Activity Zones that make up the programs found within Explore Park, their facilities, and their management. The Conclusion discusses management strategies and provides guidance

on the Park’s development progress and future, and summarizes the major steps and the possible opportunities to shape a broader narrative for Explore Park.

Since the Adventure Plan was approved, numerous attractions, programs, and facility renovations have been implemented to enhance the overall experience for Explore Park visitors. Primitive camping spots and cabins have been added, Treetop Quest Ropes Course has opened, ziplining routes have been expanded, hiking trails have been extended with connections to the newly implemented sections of the Roanoke River Greenway, safer Roanoke River access points have been created, a new playground has been constructed, a brewpub has opened, wedding and event spaces have opened, picnic areas and shelters have been constructed, and disc golf trails have been created and expanded. In addition, numerous attractions have opened at Explore Park since the Adventure Plan’s implementation. These include the widely popular Illuminights (holiday lights trail event), T-Rex Trail (dinosaur informational science trail), and the Tavern Stage (monthly music series event in the summer). There have also been numerous children, teen, and adult programs geared toward fitness and wellness added to help connect residents and visitors to the outdoors.

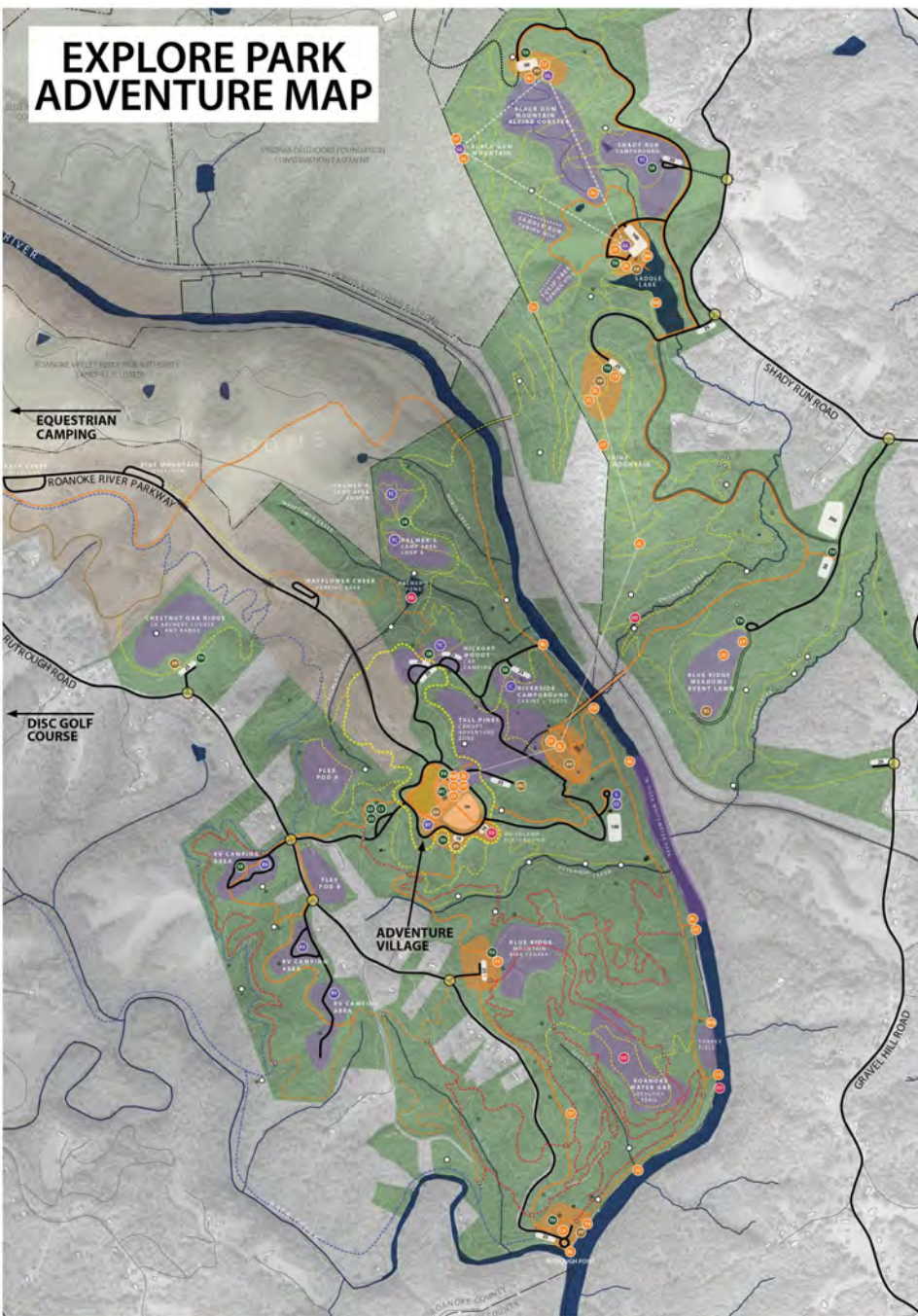
### Comprehensive Master Plan for Parks and Facilities

Roanoke County Parks, Recreation and Tourism Department last updated its Comprehensive Master Plan in 2007 with Pros Consulting LLC. The 2007 Master Plan focuses on the existing and future parks, open space, trails, recreation facilities and program needs in an effort to create a more balanced parks and recreation system. The development of the Master Plan was performed in close coordination with the parks and recreation staff, the County Administrator’s staff, and the County Board of Supervisors.

The 2007 Master Plan guiding principles are expectations that the community has for Roanoke County Parks, Recreation and Tourism system.

#### PARK LEGEND

- SERVICES**
  - Country Store
  - Dump Station
  - Gas Station
  - Operations / Maintenance
  - Park Admin. / Taubman
  - Showers / Restrooms
  - Trailhead / Restrooms
  - Welcome Center
- ADVENTURES**
  - Alpine Coaster
  - Boathouse
  - Boat Launch
  - Bouldering Wall
  - Concession Facility
  - Climbing Tower
  - Day Lodge
  - Fishing Access
  - Gondola Loop
  - Observation Tower
  - Scenic Spot
  - Wildlife Blind
  - Zip Line
- EVENT VENUES**
  - Exhibition Hall
  - Event Stage
  - Mountain Union Church
  - Natural Amphitheater
  - Picnic Area
  - Picnic Pavilion
  - Riverside Lawn
  - Village Green
  - Educational Zone
- HOSPITALITY**
  - Brugh Tavern
  - Conference Center
  - Equestrian Camping
  - Lodge
  - RV Camping
  - Tent Camping
  - Yurts / Cabins
- CIRCULATION**
  - Roads
  - Service Roads
  - Local Roads
  - Future Park Roads
  - Railroad
  - Core Loop (Hike Only)
  - Greenway (Hike/Bike)
  - Primary (Hike/Bike)
  - Secondary (Hike/Bike)
  - Secondary (Hike/Horse)
  - Secondary (Bike Only)
  - Secondary (Hike Only)
  - Tertiary (Hike Only)
  - NPS Trail System
  - Trail Junction
  - Parking Area
  - Gateway
  - Future Gateway
  - Old Growth Tree
  - Old Structure
  - Old Foundation
  - Rock Outcropping
  - Rock Cairn
  - Water Body
  - Rivers
  - Park Buildings
  - Private Buildings
  - Explore Park
  - Resource Authority
  - Protected Lands
  - National Park Service
  - County Line
- LAND OWNERSHIP**
  -





The community's guiding principles includes the following:

- Create more indoor and outdoor destination parks and recreation facilities to establish a sense of pride with residents
- Create quality in all future development efforts
- Maintain existing parks and recreation facilities at a high level
- Continue development of greenways and trails throughout the County with connections to the Roanoke Valley Greenway network
- Create a balance of both passive and active experiences in parks and recreation facilities and program offerings
- Keep up with parks and recreation trends in facilities and programs and then provide them accordingly
- Programs and facilities should be designed to be family oriented and serve people of all age segments
- Continue development of special events and festivals as these programs help bring

the community together and serve to create a feeling of belonging that is vital for a community like Roanoke County

- Continue to be fiscally responsible
- Create financial sustainability in facility design and operations
- Continue to develop appropriate partnerships with other service providers and special interest groups to maximize existing resources
- Create equity through proximity and accessibility of all parks, recreation facilities, trails and programs
- Ensure safety in all elements of design, development and operations of the parks
- Continue to acquire park land in underserved areas of the County and in areas where potential park land is available
- Focus attention on completing the implementation of the Master Plan in a timely manner
- Build a sense of stability throughout the parks and recreation facilities, programs and events

## Parks, Recreation and Tourism Capital Improvements Program

There are three projects included in the Fiscal Year 2024-2033 Capital Improvements Program related to the Parks, Recreation and Tourism Department. These include improvements at Explore Park as well as projects at Green Ridge Recreation Center and lighting systems at various ball fields around Roanoke County.

The first project of the FY 2024-2033 Capital Improvements Program is a continuation of funding for infrastructure at Explore Park in order to attract private development and help implement the Explore Park Adventure Plan. This first phase of the Explore Park Adventure Plan is projected to be spread over 10 years, with the funds providing for the development of Explore Park infrastructure to support private-public partnerships and to implement different aspects of the Adventure Plan (Roanoke County, 2018) The first round of funding for this project (\$5.4M from FY 2016 - FY 2018) supported capital infrastructure, including water and sewer connections, design of internal water, sewer, and road systems, bike skills park, building repairs, land studies, broadband connections, land purchase, and road paving (Roanoke County, 2023). In 2018, Blue Mountain Adventures and Don's Cab-Inns opened their businesses at Explore Park, with Treetop Quest's aerial adventure course opening in 2019. The second round of request for proposals were issued in November of 2018 for additional outdoor adventure themed services and food and beverage for Brugh Tavern, and Roanoke County awarded a contract in the first half of calendar year 2019 to expand services by private vendors at Explore Park. Additional funding in 2023 (\$1.4M from FY 2023 - 2032) provided for additional infrastructure based on public-private partnership needs for future developments, with future funding planned in FY 2026 in the amount of \$750,000 to expand parking capacity at the park (Roanoke County, 2022).

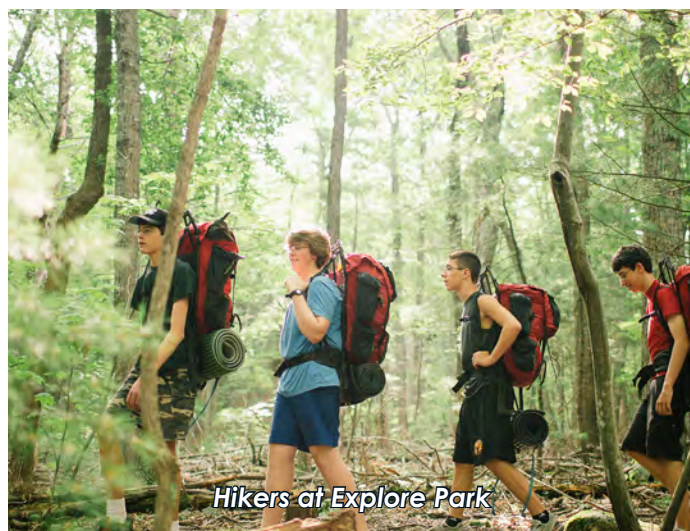
The Green Ridge Dehumidification Units Replacement project will replace two dehumidification units that are reaching the

end of their useful life. These units have had numerous components replaced and service calls administered since their installation in 2009. They are first generation units that are no longer in production and the ability to access replacement parts is becoming a challenge. The Green Ridge Recreation Center is a major county facility of over 76,000 square feet for health-centered recreational programs. The existing units have undergone numerous compressor, coil, and computer replacements and repairs throughout their years of service. The replacement is planned for FY 2026 for a total of \$740,000.

The Sports Field Lighting Program project includes \$900,000 in funding beginning in FY 2028 to replace lighting systems to allow for increased athletic field usage. Sports field lighting allows for youth adult sports to have more access to and use of Roanoke County fields outside of daylight hours. Sports field lighting allows more daily uses on a field and minimizes the need for additional athletic fields in the park system. This project will allow the replacement of two of the oldest lighting systems in the County's park system while also adding an additional light system to Merriman field 4 located at Starkey Park to support lacrosse, soccer and flag football. The lighting systems that will be replaced are at Clearbrook Park and Whispering Pines Park, both of which are over 30 years of age and have passed their useful life. Clearbrook Park is essential for lacrosse, soccer and softball. Without lights, these three programs would need additional fields to be able to play in South Roanoke County, and lacrosse would not have fields to play on during March of each year until day light savings time. Clearbrook Park is also used each year by Roanoke County Public School system middle schools, junior varsity, and varsity sports teams. Whispering Pines Park fields support men's softball tournaments as well as recreation and travel baseball. By adding LED light systems, Roanoke County will reduce energy consumption and have a 10-year warranty on the units.



Illuminights at Explore Park



Hikers at Explore Park



## 5.5 Fire & Rescue



Roanoke County's Fire and Rescue Department (RCFRD) is committed to providing quality fire and EMS services to the citizens and visitors of Roanoke County. The Department is a combination department with both career and volunteer personnel operating out of 13 stations, strategically located throughout the 12 fire and rescue response areas, and one administrative office. The Department is made up of two main divisions: Operations and Support Services. The map on page 5-19 shows the location of the existing and future fire and rescue facilities.

The Department has witnessed a change in the workforce in that there is a decline in volunteerism causing a shift in the organization to become a more career-based Department. As of 2023, RCFRD employs over 188 full-time personnel and is supported with approximately 105 active volunteers. In 2022, the Department responded to over 15,677 calls for emergency or fire assistance annually, an increase from 20 years ago when about 8,000 calls were logged per year. Approximately 85% of calls are for EMS while 15% are for fires which included nearly 650 false alarm calls. The Department has nearly 50 vehicles including 22 ambulances, 16 pumper trucks, six tanker trucks, and three ladder trucks.

In Roanoke County there are fourteen volunteer organizations across the County. Within those organizations, there are nearly 200 active volunteer personnel who are trained in firefighting, emergency medical services, or both. These individuals go through training much like the career personnel and serve mostly during the nighttime hours, weekends, and holidays. Many of the volunteers have served for over a decade.

Roanoke County Fire and Rescue Department also offers various educational programs for adults and non-profit community groups within Roanoke County. These currently include: Public Safety Academy, Campus Fire Safety, CERT Training, Cooking Safety, Fire Safety & Severe Weather Safety Simulator, Firewise Virginia, Fireworks Safety,

First Aid & CPR Training, Holiday Safety, Summer Safety, Winter Heating Safety Tips, and Water Safety Tips. The Fire and Rescue Department educates citizens at the Public Safety Center on topics including fire system overview, personal protective equipment, CPR and AED certification, Fire Marshal investigations, inspections, public education, hazmat, EMS, CPAT, apparatus and hose streams, technical rescue and haul back systems.

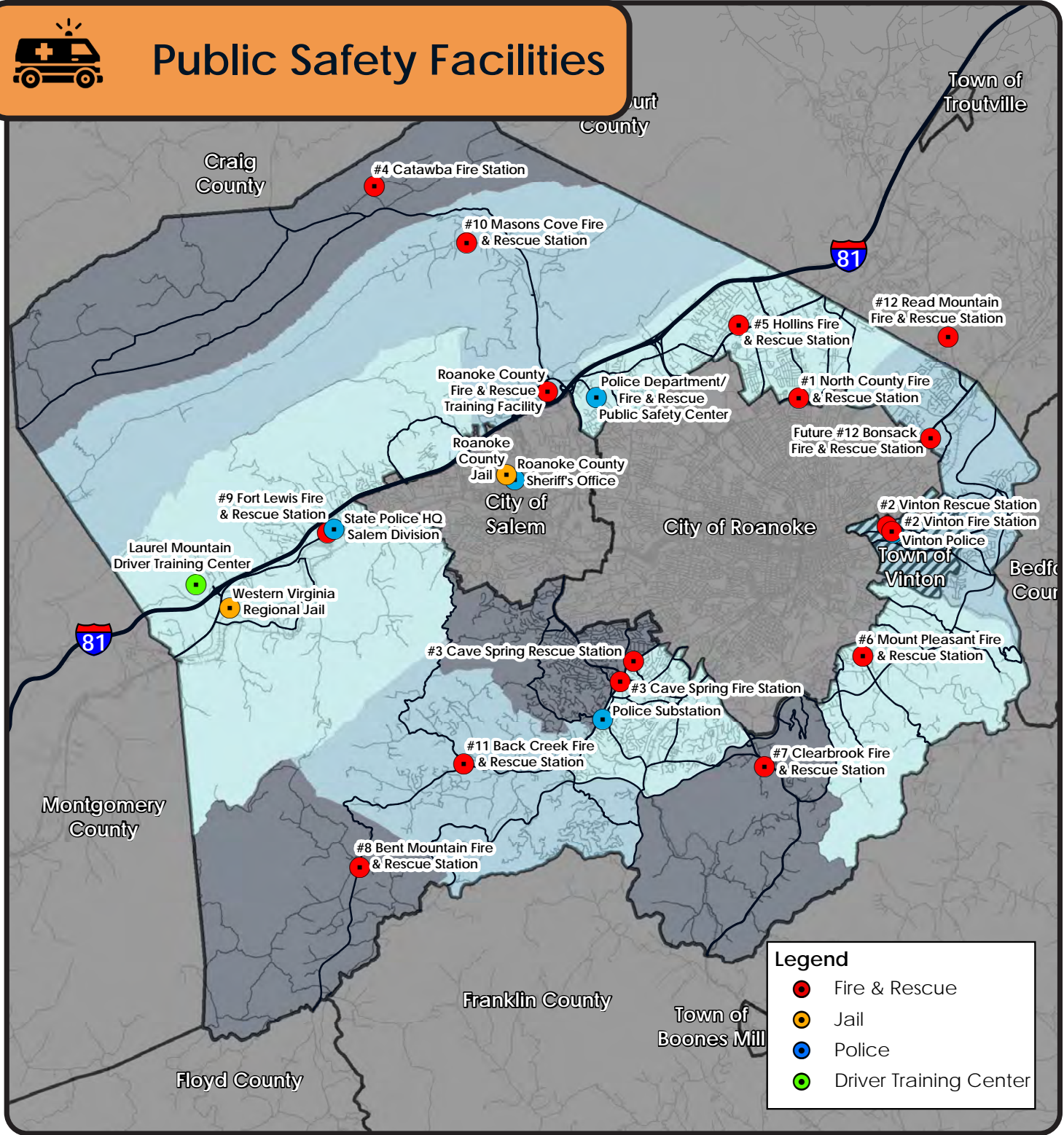
The Roanoke County Fire Marshal's Office is one of only a few in our area where the Fire Marshal and the three Deputy Fire Marshals are all sworn law enforcement officers which allows personnel to be integrated in the operations of the Roanoke County Police Department where they actively participate in school safety checks, training for potential active shooter events, and have even assisted the Police Department on several occasions with the apprehension of suspects. The Fire Marshal's Office also attends many community events throughout the year to educate the public on fire safety and teach people the five E's of fire prevention — Enforcement, Education, Emergency Response, Engineering, and Economics — and in so doing, rises to the top when it comes to Community Risk Reduction. The specially trained Wildland Team is nationally recognized with the U.S. Forest Service which means that not only do they help protect Roanoke County but they also can be deployed to help fight wildland fires in other parts of the state or even the country.



#2 Vinton Fire Station

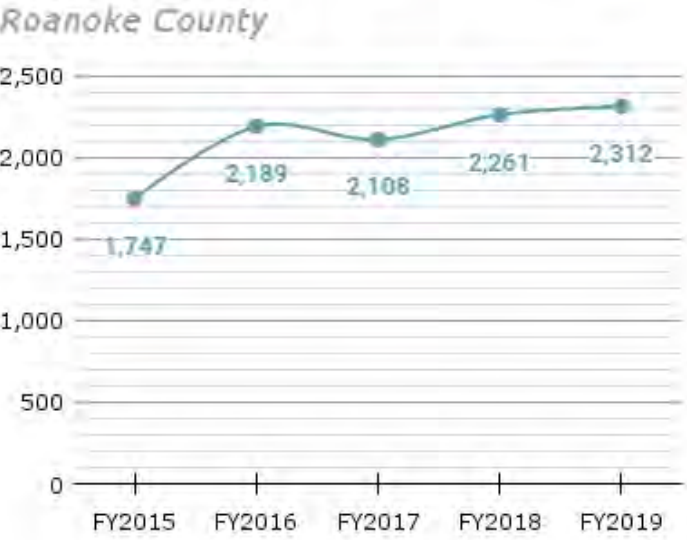


## Public Safety Facilities

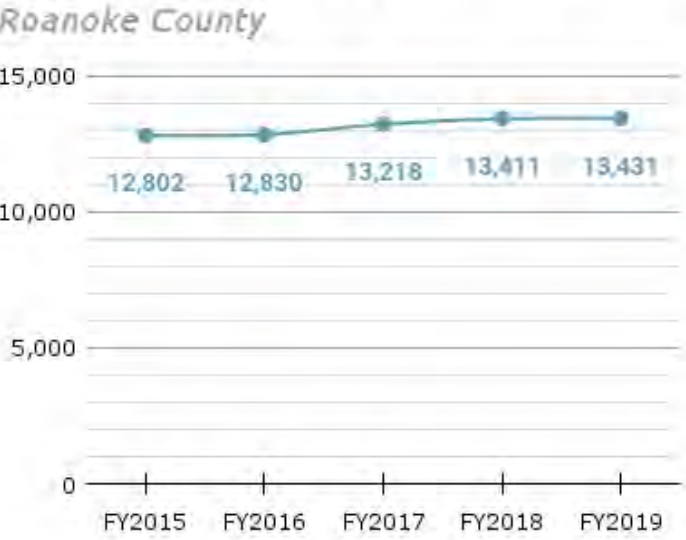




### Fire Incidents by Fiscal Year

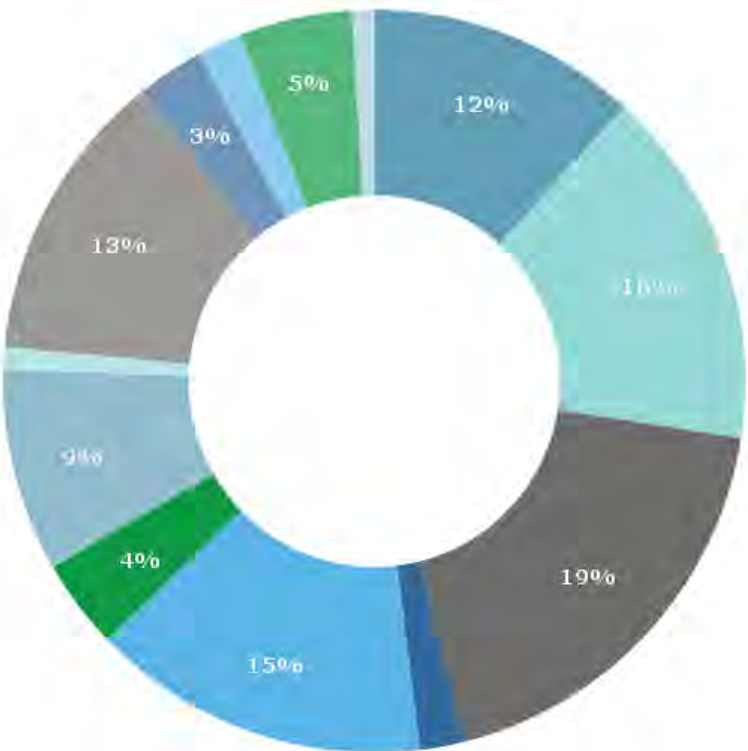


### Rescue Incidents by Fiscal Year



### Fire & Rescue Incidents by Station

- #1 North County, 12%
- #2 Vinton, 16%
- #3 Cave Spring, 19%
- #4 Catawba, 2%
- #5 Hollins, 15%
- #6 Mt. Pleasant, 4%
- #7 Clearbrook, 9%
- #8 Bent Mountain, 1%
- #9 Fort Lewis, 13%
- #10 Masons Cove, 3%
- #11 Back Creek, 2%
- #12 Read Mountain, 5%
- Excessive Distance, 1%



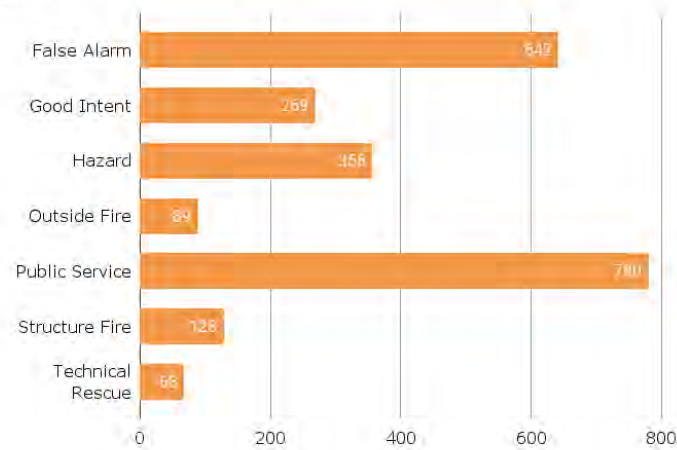
Source: 2023, Roanoke County Fire and Rescue Department

Fire and Rescue Facilities			
Name	Address	Square Feet	Year Built
Fire and Rescue Administrative Offices/ Roanoke County Public Safety Center	5925 Cove Road	88,190	2006
Roanoke Valley Regional Fire-EMS Training Center	1220 Kessler Mill Road	13,350	2020
North County Fire and Rescue Station #1	150 Hershberger Road	16,150	2008
Vinton Fire and Rescue Station #2	120 W. Jackson Avenue	26,580	1977
Cave Spring Fire and Rescue Station #3	4212 Old Cave Spring Road	15,575	1970
Cave Spring Rescue Station #3	3206 Valley Forge Avenue	10,100	1989
Catawba Fire and Rescue Station #4	5585 Catawba Hospital Drive	4,335	1987
Hollins Fire and Rescue Station #5	7401 Barrens Road	14,030	1980
Mount Pleasant Fire and Rescue Station #6	2909 Jae Valley Road	9,350	1973
Clearbrook Fire and Rescue Station #7	5342 Indian Grave Road	12,000	1975
Bent Mountain Fire and Rescue Station #8	9606 Bent Mountain Road	7,320	1980
Fort Lewis Fire and Rescue Station #9	3915 West Main Street	14,030	1980
Masons Cove Fire and Rescue Station #10	3810 Bradshaw Road	9,550	1986
Back Creek Fire and Rescue Station #11	7125 Bent Mountain Road	11,580	1988
Read Mountain Fire and Rescue Station (Previously #12. Now Owned by Botetourt Co.)	43 Eastpark Drive	9,910	1991
Future Bonsack Fire and Rescue Station #12	1465 Mexico Way	12,000	2025



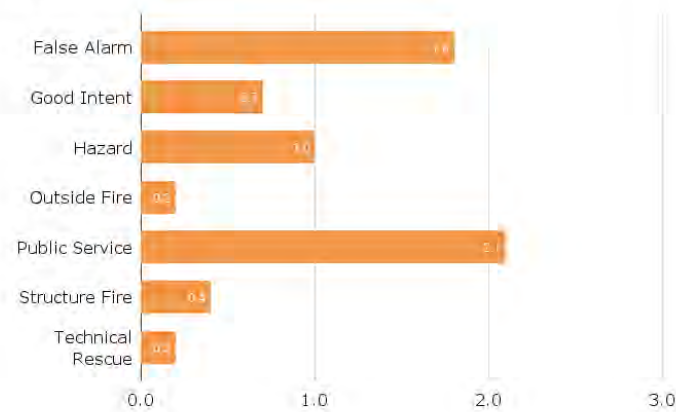
### Number of Fire Calls in Roanoke County

2022



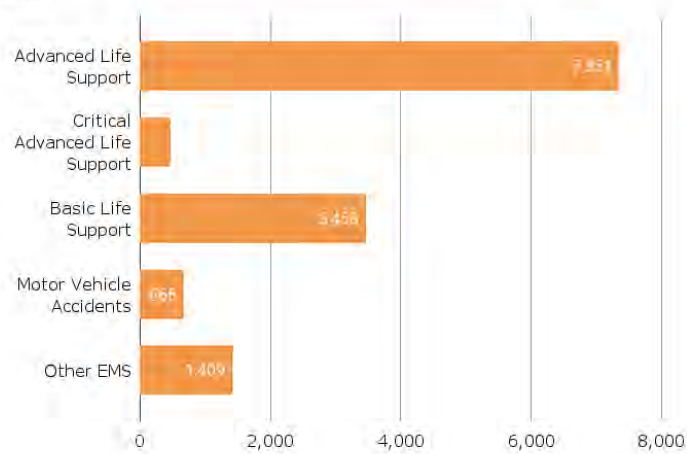
### Average Fire Calls per Day in Roanoke Co.

2022



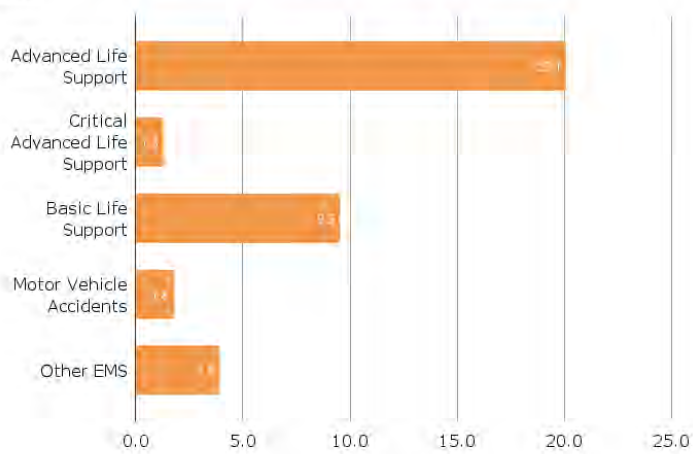
### Number of EMS Calls in Roanoke County

2022



### Average EMS Calls per Day in Roanoke Co.

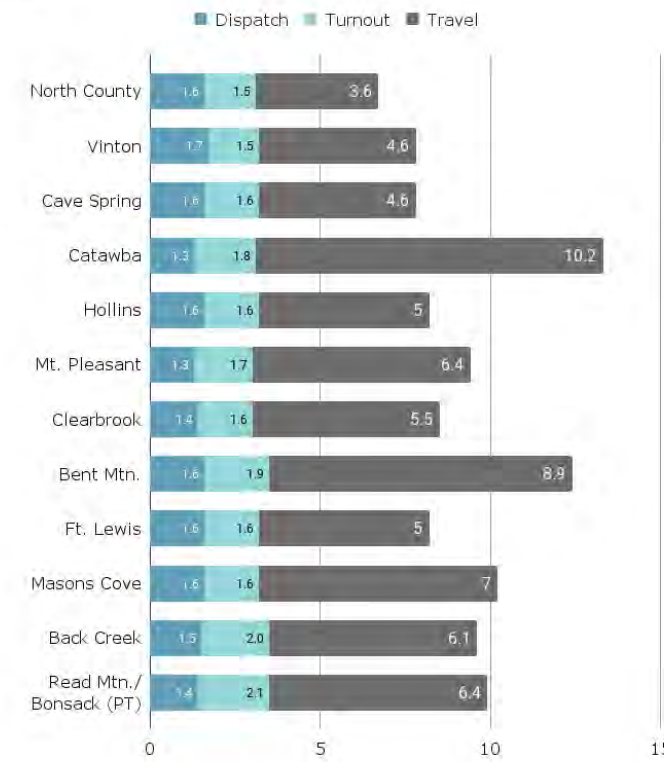
2022



Source: 2023, Roanoke County Fire and Rescue Department

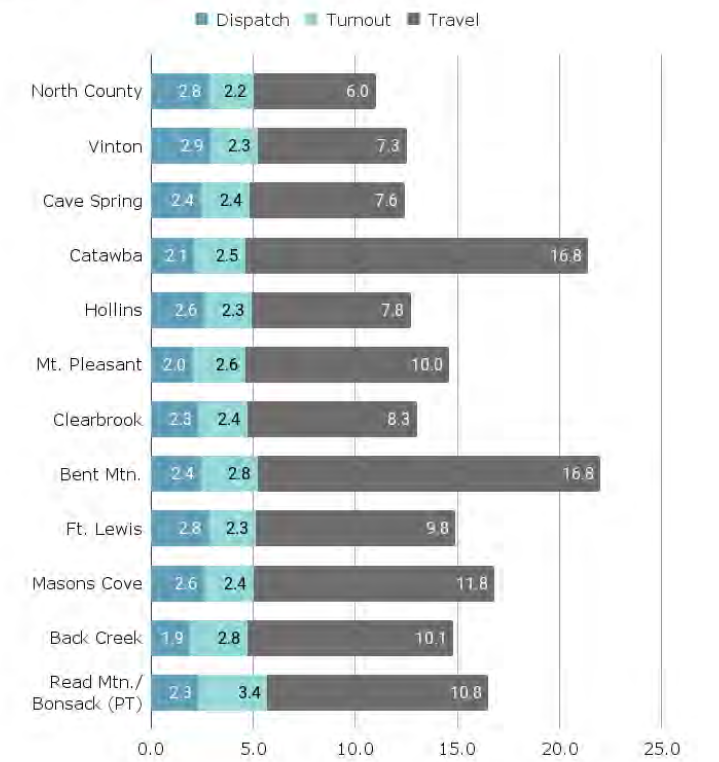
### Average Response Times for Fire & EMS in Roanoke County

2022



### 90th Percentile Response Times for Fire & EMS in Roanoke County

2022



Source: 2023, Roanoke County Fire and Rescue Department



## 5.6 Police



The Roanoke County Police Department strives to provide citizens of Roanoke County with the best possible police services through providing successful community programs and a dedicated workforce. The Roanoke County Police Department is nationally accredited by the Commission on Accreditation for Law Enforcement Agencies, which it has maintained since November 1992. In 2022, the department deployed 134 sworn officers and 16 civilian employees (Roanoke County Police Department, 2022).

The map on page 5-19 shows the location of existing police and training facilities. This includes the Public Safety Center located at 5925 Cove Road, the Police Substation located at 5051 Ranchcrest Drive, and the Laurel Mountain Driver Training Center located at 6231 Twine Hollow Road. The Laurel Mountain Driver Training Center is a Virginia Department of Criminal Justice Services (DCJS) approved facility for training law enforcement officers in the proper and safe methods of handling vehicles in a variety of road conditions. Originally built for use by Roanoke County, the 30-acre training center is conveniently located just off Interstate 81 at Exit 132 in western Roanoke County and includes a paved roadway, skid pad, classroom, and garage for minor maintenance and repairs. The Laurel Mountain Driver Training Center is managed by the Roanoke County Police Department and is the only training facility of its kind west of Richmond.

The Roanoke County Police Department offers a variety of services including animal control, the Public Safety Academy, public safety videos, Neighborhood Watch, self-defense classes, Youth Police Academy, Criminal Justice Academy, C.O.P.S. Camp, school resource officer program, and the Roanoke County Police Foundation. The Animal Control unit is responsible for enforcing state laws and local ordinances within Roanoke County. Officers have specialized training and equipment to handle animal related incidents such as attacks, sheltering, animal abuse, lost animals, and the welfare of livestock and wildlife.

The Public Safety Academy aims to educate citizens on why and how our agencies carry out our missions while working together as a team with police topics including patrol, budget, community service officers, school resource officers, driving range, use of force, traffic unit, firing range, K9, S.W.A.T, VICE, criminal investigations, evidence collection, academy tour, polygraph and building clearing. The Youth Police Academy is a summer outreach program that introduces youth to the field of law enforcement. It allows the opportunity for youth and police to build stronger, positive relationships. The Roanoke County Criminal Justice Academy was a product crafted from the vision of the executives of Roanoke County and is committed to adhering to the highest ethical and professional standards expected from those employed as law enforcement practitioners.

The School Resource Officer (SRO) program is offered in cooperation with Roanoke County Public Schools, with SROs assigned to elementary schools, middle schools, and high schools throughout the County. The SROs also assist at elementary schools with law-related incidents or programs. SROs provide classroom instruction on law enforcement



K-9 Unit

topics and the Virginia Rules Program, an expansion of the Class Action program offered from the Virginia Attorney General's Office. SROs hold classroom presentations in the high schools and middle schools, conduct classroom observations, and special events at schools, and hold conferences with students, staff and parents.

Neighborhood Watch was created to build relationships between citizens, the Roanoke County Police Department and the Roanoke County Sheriff's Office. This program provides citizens with information on crime statistics and an opportunity to learn about problems that are commonly seen around Roanoke County. The Rape Aggression Defense System teaches self-defense tactics and techniques for women. It is a program of realistic, self-defense tactics and techniques. The RAD System is a comprehensive course for women that begins with awareness, prevention, risk reduction and avoidance, while progressing on to the basics of hands-on defense training. The Rape Aggression Defense (RAD) System of realistic defense will provide women with the knowledge to make an educated decision about resistance. C.O.P.S. (Challenging



Roanoke County Police

Opportunities for Police and Students) Camp is a week-long overnight camp program organized by the School Resource Officers at Camp Roanoke.

## 5.7 Sheriff's Department



The Office of the Sheriff has proudly served the citizens of Roanoke County since 1838. The deputies provide three main areas of service to the community: civil process, court security, and corrections. The Roanoke County Sheriff's Office and Jail are located at 401 East Main Street in Salem. The Sheriff's Department Administration handles the overall supervision and leadership of the Sheriff's Office, including maintaining the civil process, professional standards, and budgetary operations. This is also the location of the Magistrate's Office. In addition, the Sheriff's Office also engages with the community by providing personal safety courses, firearm safety courses, drug take back programs, and the inmate workforce program. The Sheriff's Department covers the jail history, jail tour, jury selection, court security, civil process, criminal law, E.R.T, clerk of court, services, and A.V.O.I.D self-defense. The Roanoke County Sheriff's Office



is accredited by the American Correctional Association, the oldest and largest international correctional association in the world. Roanoke County Sheriff's Office received accreditation by the Virginia Law Enforcement Professional Standards Commission. The map on page 5-19 shows the location of the existing Sheriff's Office, Jail, and Courthouse.

## County Courthouse

The second division of the Sheriff's Office includes court security that provides a secure and safe environment to maintain order in the courtrooms and courthouse for all members of the judiciary and the public. The Roanoke County Courthouse including Circuit Court, General District Court, Juvenile Court, and Domestic Relations Court, are located at 305 East Main Street in the City of Salem.

## County Jail

The third division of the Sheriff's Office includes corrections security which provides temporary supervised housing for persons entrusted to the Sheriff's Office care.

## 5.8 Regional Jail



Opened in 2008, the Western Virginia Regional Jail is located at 5885 West River Road in Roanoke County and was built to alleviate the overcrowded and potentially unsafe conditions in the local jails of the four localities (Roanoke County, City of Salem, Montgomery County, and Franklin County) that formed the Western Virginia Regional Jail Authority in 2005. The local jails were operating at two to three times their rated capacities creating the need for a larger facility to serve the region. There are over 200 people employed at the Western Virginia Regional Jail including corrections officers, civilians, and contract workers who provide food, medical, and commissary services. The Jail holds both male and female inmates for its four member agencies, federal and state responsible inmates, and contract inmates for other localities. Since 2016 the average population has been approximately 800 inmates. The Jail's medical section provides a comprehensive range of medical, dental, and mental health services in house that meet Virginia Department of Corrections and American Correctional Association standards.

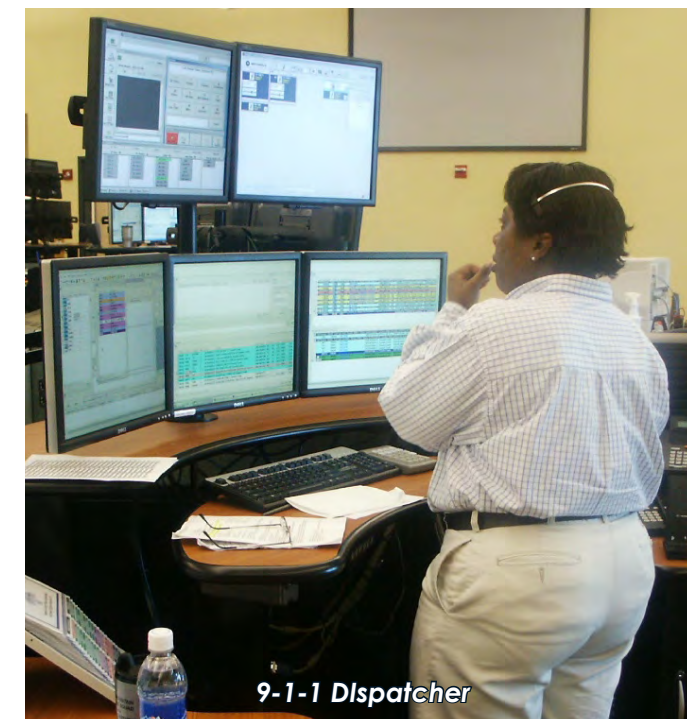


Western Virginia Regional Jail

## 5.9 9-1-1 Emergency Communications Center



Located in the Public Safety Center, the Roanoke County 9-1-1 Emergency Communications Center (ECC) is comprised of Communications Officers serving as first responders who work in conjunction with emergency medical services, fire, and law enforcement personnel of Roanoke County and the Town of Vinton to save lives, protect property, and stop crime. The ECC provides cross-agency communication amongst all public safety departments throughout the Roanoke Valley and also engages with the community through outreach and education. Roanoke County ECC is accredited by the Commission on Accreditation for Law Enforcement Agencies. There are less than 100 public safety communications centers nationwide with this distinction. Furthermore, all ECC Communications Officers maintain CPR and Emergency Medical Dispatch (EMD) certification. EMD enables a Communications Officer to assist citizens over the phone with medical instructions until a first responder can treat the patient.



9-1-1 Dispatcher

## 5.10 Solid Waste



There are two administrative bodies directly involved with solid waste removal and recycling operations in Roanoke County. Roanoke County's General Services offices are split between the main offices located at 5235 Hollins Road and operations, equipment and storage located at 1216 Kessler Mill Road. The Roanoke Valley Resource Authority (RVRA) is the second administrative body which consists of four member communities: the Cities of Roanoke and Salem, the County of Roanoke and the Town of Vinton. The mission of RVRA is to provide environmentally sound disposal in the most cost-effective manner to residential and commercial haulers within the region. The Roanoke Valley Resource Authority manages the Tinker Creek Transfer Station located in Roanoke City at 1020 Hollins Road and the Salem Transfer Station located in Salem at 1271 Indiana Street where materials are collected and separated to be exported out of the Roanoke Valley. The Smith Gap Landfill is a 950-acre site located at 8484 Bradshaw Road in Roanoke County, which is managed by RVRA.

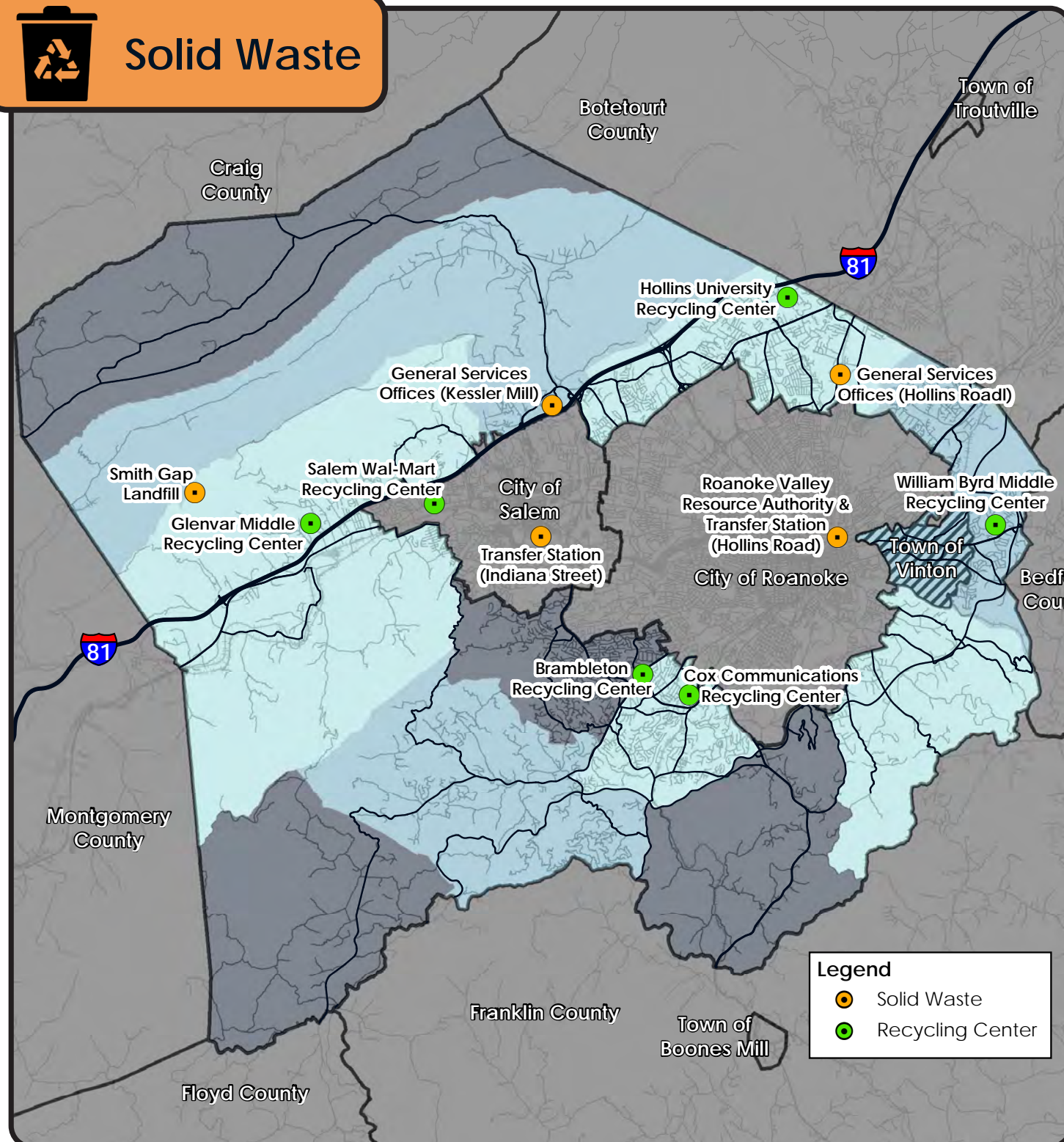
Curbside trash collection is provided each week to Roanoke County residents and many businesses. Bulk and brush is collected on a biweekly basis from residences. Roanoke County Solid Waste provides lid and wheel repairs without any direct charge to residents, when possible. Residents can complete an online application to request these repairs. Roanoke County Solid Waste also provides bear-resistant latch hardware installation on Roanoke County trash containers.

Recycling is currently offered as a drop-off service only with six facilities in Roanoke County including facilities at Hollins University; William Byrd Middle School; Cox Communications located in the Cave Spring Planning Area; Brambleton Center; Glenvar Middle School; and Wal-Mart located in Salem.





## Solid Waste



## 5.11 Administration and Other County Facilities



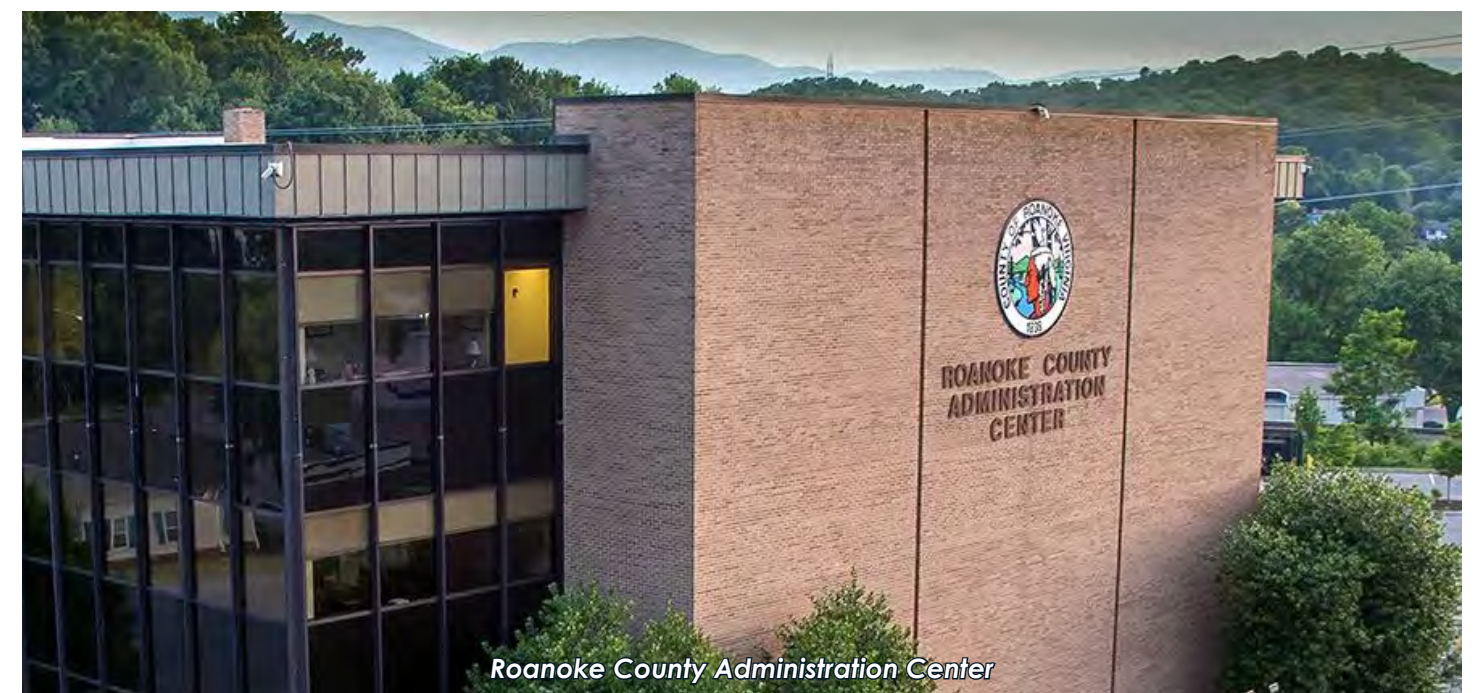
The Roanoke County Administration Center at 5204 Bernard Drive currently houses the Board of Supervisors/Clerk to the Board; County Administrator's Office; County Attorney; Economic Development; Management and Budget; Finance; Accounts Payable; Payroll; Purchasing; Risk Management; Human Resources; Planning; Development Services; Real Estate Valuation; Commissioner of the Revenue; and Treasurer. The map on page 5-30 shows the location of the Roanoke County Administration Building and the remaining existing Administrative Facilities.

The Public Safety Center at 5925 Cove Road houses administrative offices for public safety departments including the Police Department; Roanoke County Criminal Justice Academy; Fire and Rescue Department; Information Technology; and Emergency Communications Center (9-1-1 Center).

Other administrative facilities include social

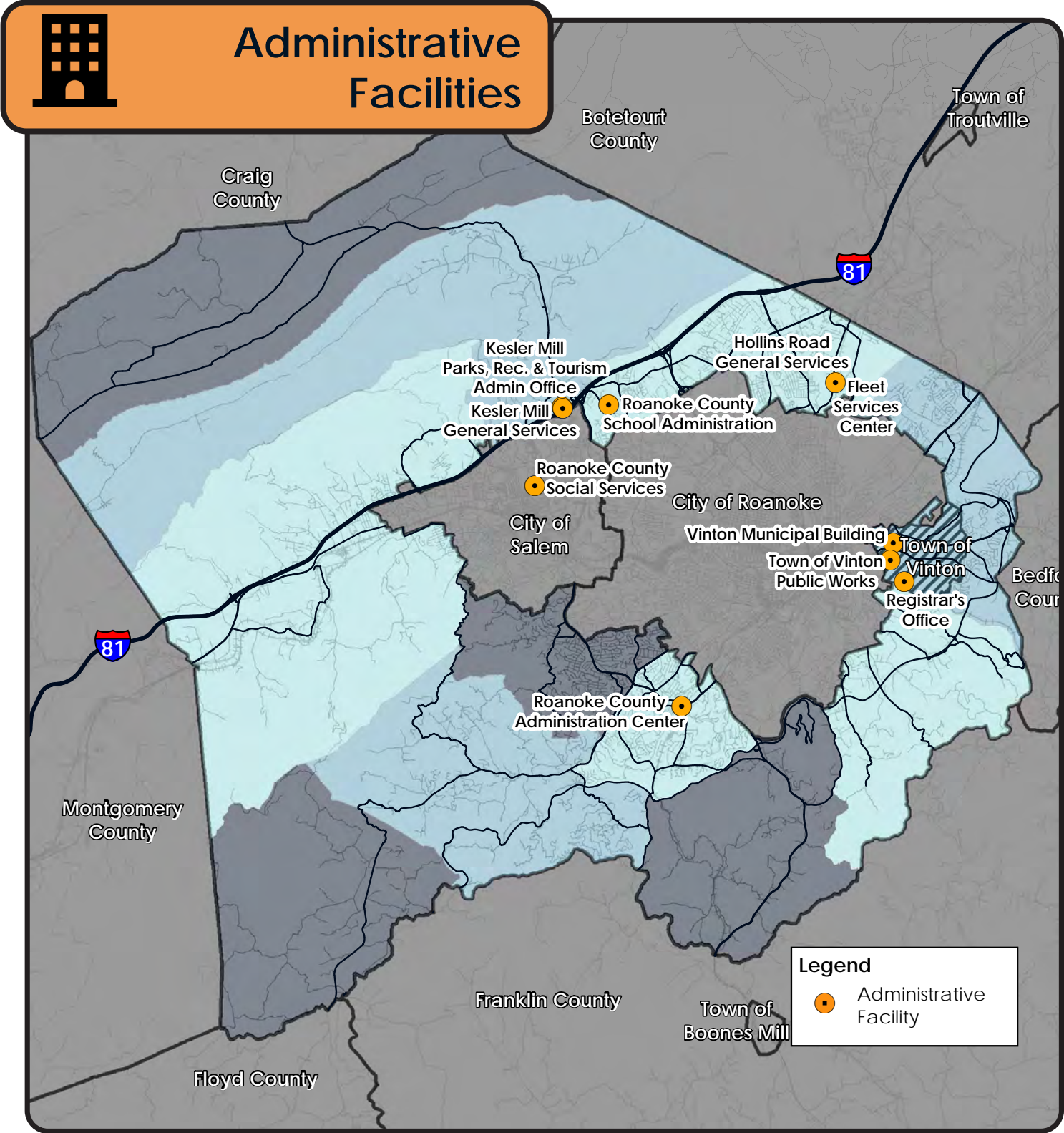
services, fleet services, and election services. Roanoke County's Social Services Department is located at 220 East Main Street in Salem. Social Services offers aid to families and children in need including disaster assistance, healthcare, nursing home care, access to food, protective services, foster care, and adoption.

The Fleet Services Center is located at 5235 Hollins Road in Roanoke County. Fleet Service serves as the County's maintenance facility for all fleet vehicles, including Garbage Trucks, Fire & Rescue vehicles, Police vehicles, Parks, Recreation and Tourism maintenance vehicles and more. Through a cooperative agreement, the Fleet Service Center also maintains vehicles for the Western Virginia Water Authority. The Registrar's Office processes registration applications and requests for transfer or change of address from other residents and manages voter registration. They are located at 900 Chestnut Street in the Town of Vinton.



Roanoke County Administration Center





## 5.12 Public Water and Sewer



The existing public water and sewer lines in Roanoke County as well as water treatment plants, reservoirs, and wastewater treatment plants can be viewed on pages 5-32 and 5-33.

### Western Virginia Water Authority

Properties connected to public water in Roanoke County are served by the Western Virginia Water Authority (WVWA). On July 1, 2004, the water and wastewater operations of the City of Roanoke and Roanoke County consolidated to become the Western Virginia Water Authority. The Western Virginia Water Authority was the first authority in the Commonwealth formed from two existing entities to treat, deliver and administer water and wastewater. Five years later, on November 24, 2009, Franklin County officially joined the Western Virginia Water Authority and on July 1, 2015, Botetourt County joined. The Authority also contracts to operate the water and wastewater systems for the Town of Fincastle. The ownership and operations of the Town of Vinton utility system officially began July 1, 2022 to provide the best long-term rate and infrastructure stability, service, and water quality for current and future customers of both the Town and the Authority.

The WVWA's water and wastewater system is in good condition and is regularly inspected and maintained. The Authority is committed to providing its customers with safe, reliable, and affordable service acknowledging that this utility system and network is an important part of the infrastructure that supports the growth and development of the Roanoke Valley. The system provides a safe and reliable way to collect and treat water and wastewater, which helps to protect the environment and public health.

### Public Water

The Western Virginia Water Authority (WVWA) utilizes four surface water sources in addition to multiple springs and wells as drinking water sources accessible to Roanoke County residents. These sources include primary reservoirs, Carvins

Cove and Spring Hollow, as well as two secondary reservoirs, Beaverdam Creek and Falling Creek. Having an abundant supply of water helps protect against drought or other emergencies.

WVWA provides water service to over 69,000 accounts in the City of Roanoke, the Counties of Roanoke, Franklin and Botetourt and the Towns of Boones Mill and Vinton. The WVWA's water network consists of over 1,790 miles of water lines that are made of a variety of materials, including lead, galvanized iron, brass, copper or plastic (PVC). The lines are buried underground and connect homes, businesses, and other facilities to the reservoirs and WVWA's two water treatment plants. The water treatment plants are designed to treat water to meet all applicable state and federal regulations. The WVWA has approximately 100 water tanks and 57 pump stations that store and distribute clean water throughout the region.

### Public Sewer

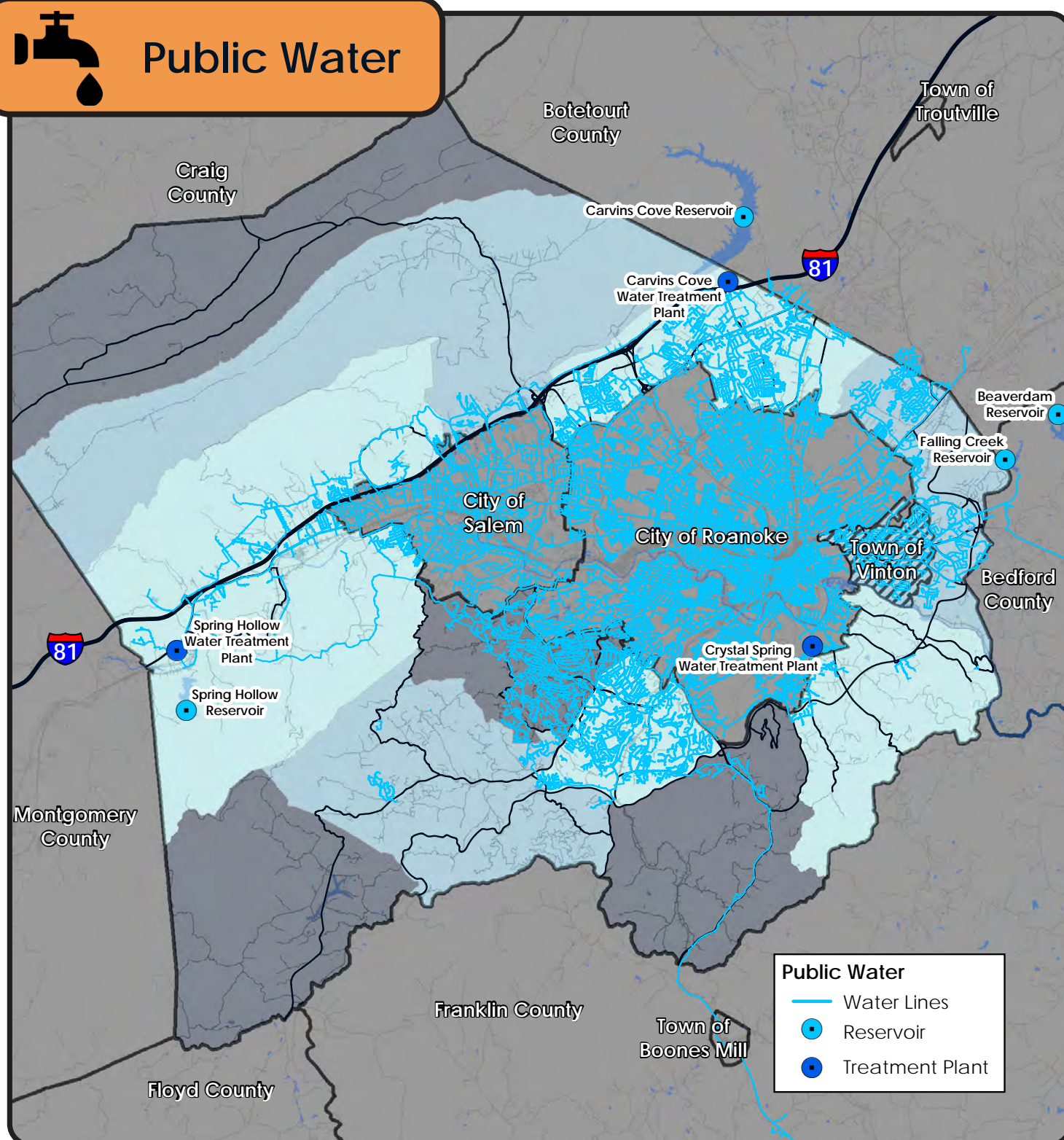
The Western Virginia Water Authority (WVWA) provides wastewater service to more than 60,000 accounts in the City of Roanoke, the Counties of Roanoke, Franklin and Botetourt and the Towns of Boones Mill and Vinton. The wastewater treatment plants are designed to treat wastewater to meet all applicable state and federal regulations.

The WVWA's sewer network consists of over 1,000 miles of sewer lines that are made of a variety of materials, including concrete, steel, and plastic (PVC). The lines are buried underground and connect homes, businesses, and other facilities to the wastewater treatment plants. The WVWA has 10 wastewater treatment plants located throughout its service area. The plants use a variety of methods to treat wastewater, including physical, chemical, and biological processes. The treated wastewater is then discharged into rivers, streams, or lakes. Lastly, the WVWA has 10 pump stations located throughout its service area. The pump stations are used to move wastewater from low-lying areas to higher elevations, where it can be collected by the sewer lines.

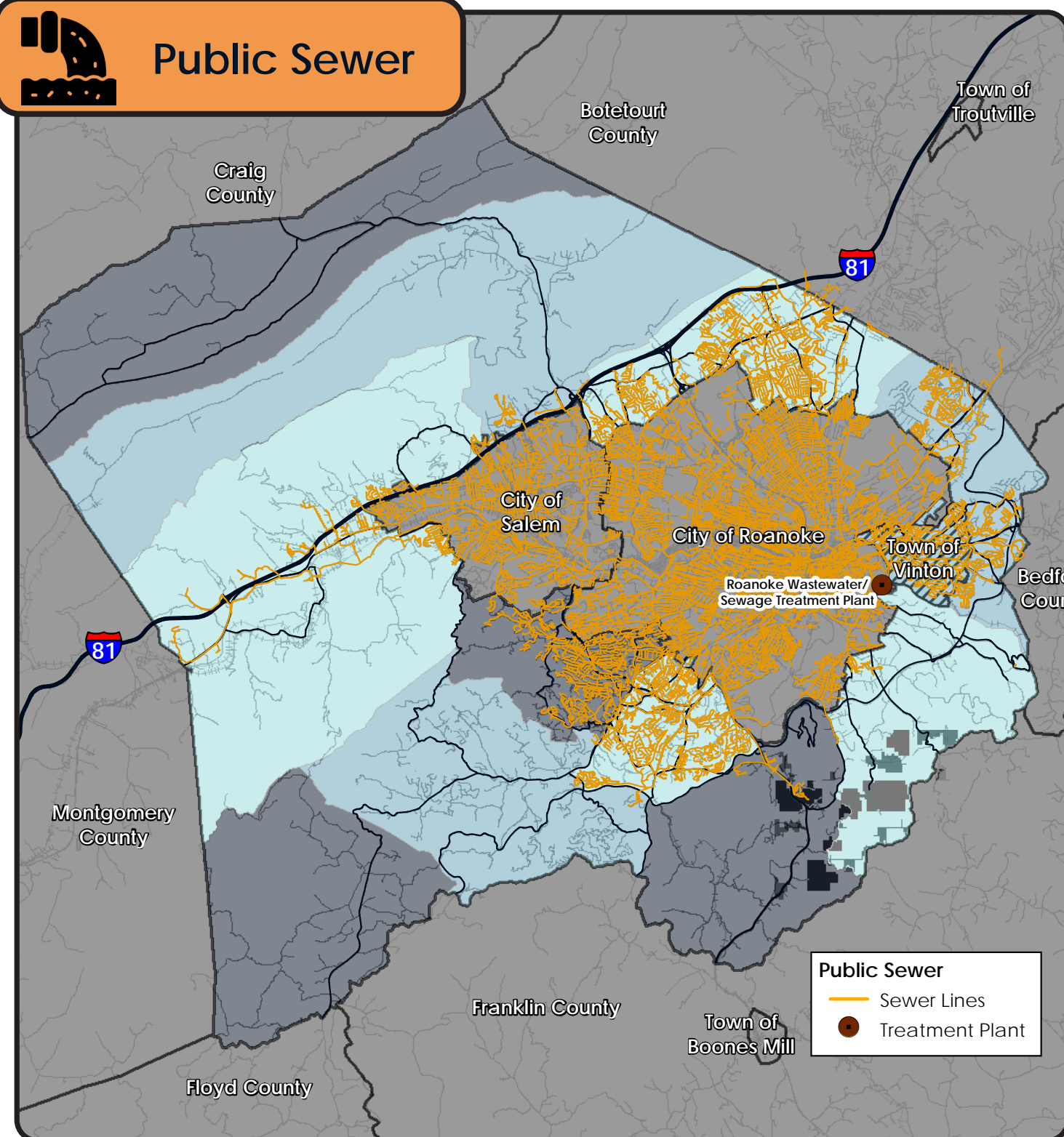




## Public Water




## Public Sewer





## 5.13 Stormwater Management

 Stormwater Management is the process of controlling the runoff from precipitation (i.e. rain or snow) that flows off of impervious surfaces like parking lots, driveways, sidewalks, and rooftops. Unchecked stormwater flows from these hard surfaces to streets and gutters, which carry the untreated runoff to nearby receiving waters.

Stormwater runoff does not go to a treatment plant before discharging into the area's receiving waters, and it can carry pollutants like motor oil, pet waste, fertilizers, pesticides, grass clippings, leaves, litter, trash, debris, and sediment into nearby waterways. All of these items negatively impact the water quality of our rivers, streams, and ponds.

Techniques to manage stormwater runoff include the use of vegetation and mulch to protect bare soil areas from erosion along with the use of Best Management Practices (BMPs) that are designed to slow velocity, reduce volume, and

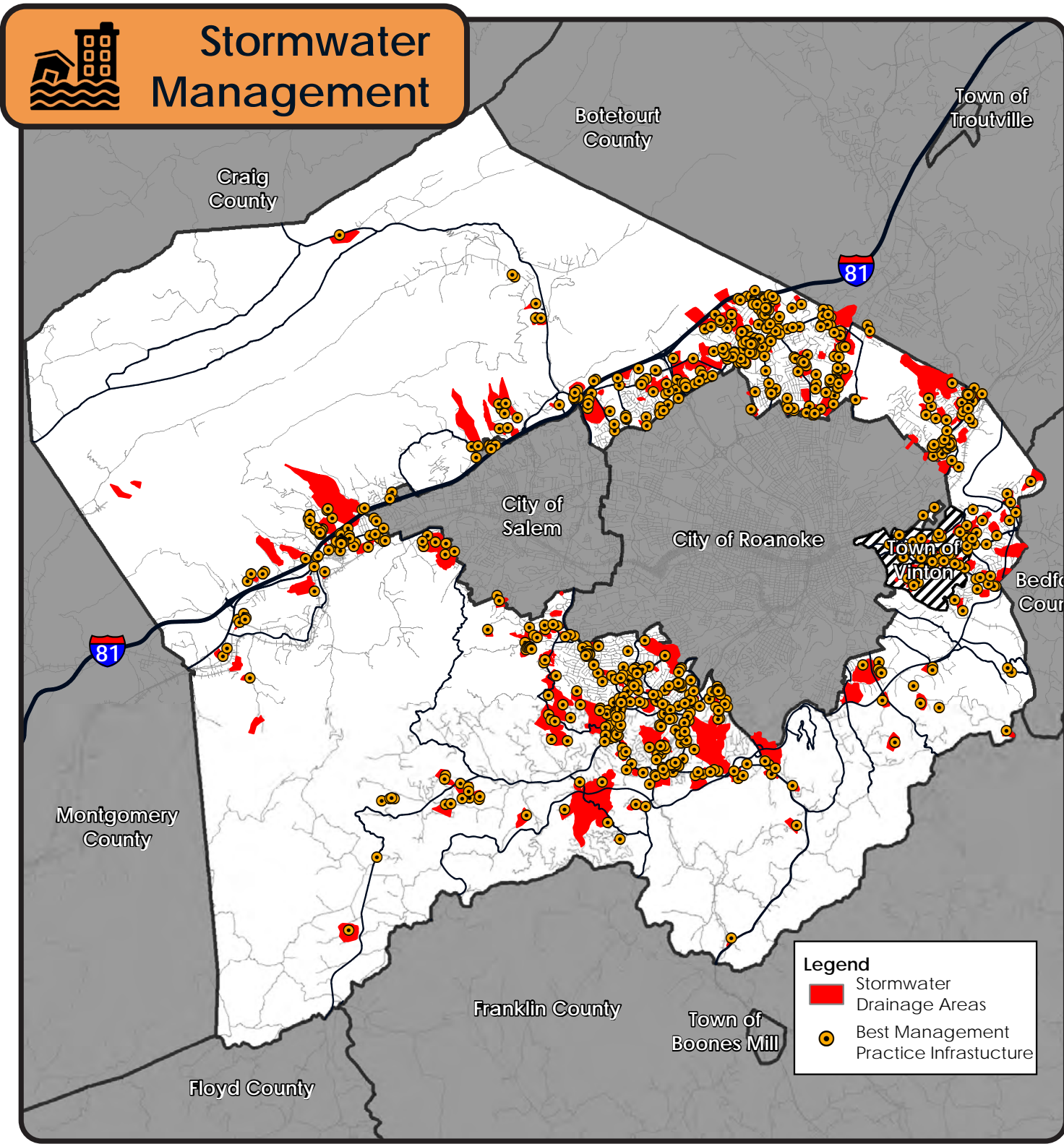
limit the rate of runoff in an effort to reduce the quantity and improve the quality of stormwater runoff before it reaches the receiving waters. The map on page 5-35 shows the existing Stormwater Best Management Practice project locations and Drainage Basins for some of those projects including bioretention ponds, above-ground and underground detention areas, and other manufactured or filtration systems as well as areas with porous pavement.

### Recent Roanoke County Stormwater Projects

- Restoration of Glade Creek, Vinyard Park Phase 1
- Restoration of Murray Run at Ogden Road
- The Orchards and Other Drainage System Improvements
- Wolf Creek - Phase II



Stormwater Management Project




**Legend**

- Stormwater Drainage Areas
- Best Management Practice Infrastructure



## 5.14 Natural Gas


 There are a number of existing natural gas facilities in Roanoke County. The map on page 5-37 shows the existing gas distribution lines to homes and businesses. Additional gas utility facilities include:

- Pipelines: There are a number of natural gas pipelines that run through Roanoke County. These pipelines transport natural gas from production areas to distribution areas.
- Compressor stations: Compressor stations are used to increase the pressure of natural gas in pipelines. This is necessary to transport gas over long distances.
- Storage facilities: Natural gas is stored in underground storage facilities. These facilities are used to store natural gas during times of low demand and to provide a buffer in case of supply disruptions.
- Regulator stations: Regulator stations are used to reduce the pressure of natural gas before it is delivered to customers. This is necessary to ensure that the gas is safe to use.

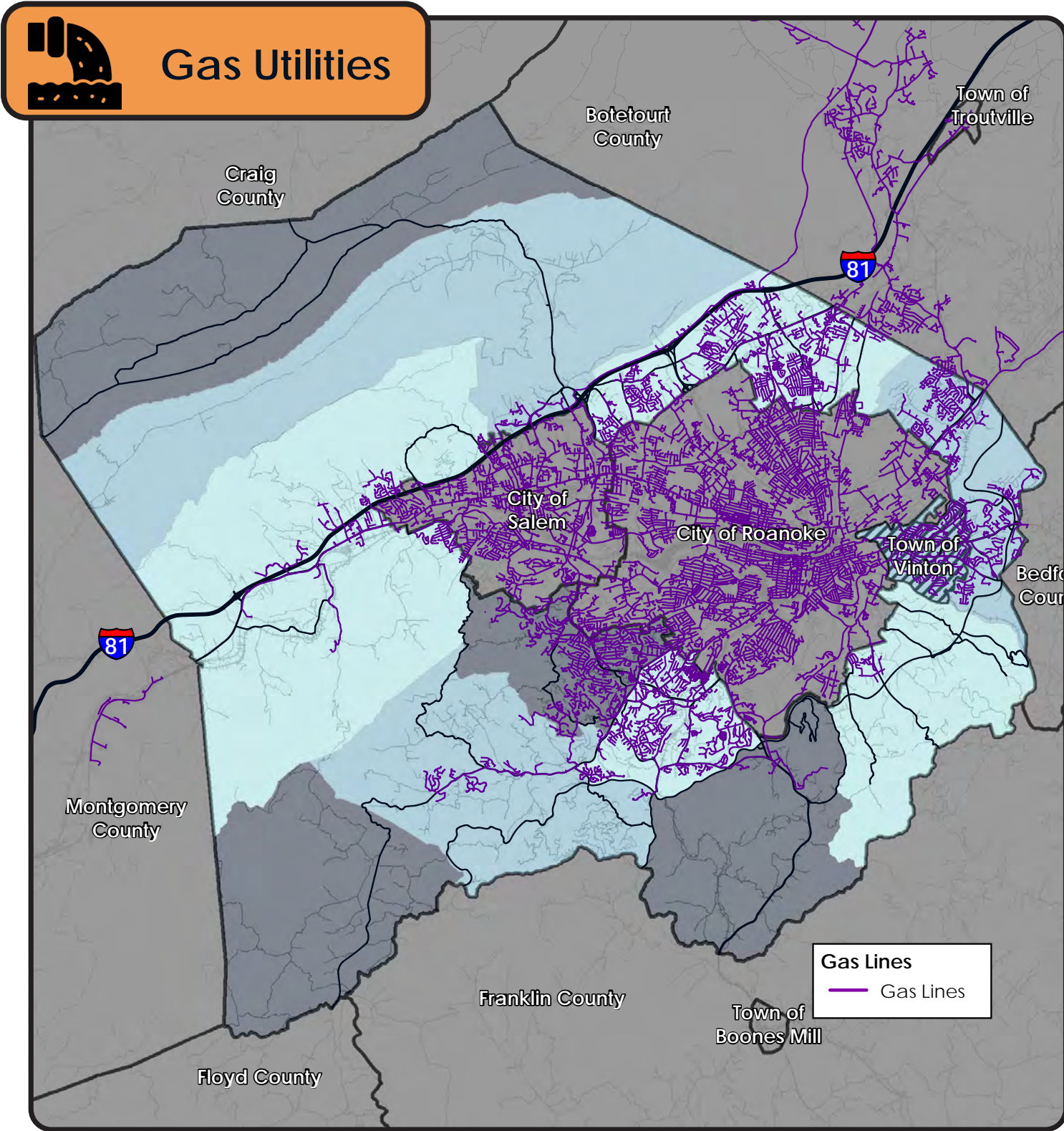
The natural gas facilities in Roanoke County are a vital part of the infrastructure of the county. These facilities provide natural gas to homes, businesses, and industries. Natural gas is a clean-burning fuel that is a good alternative to coal and oil. In addition to these existing natural gas facilities, a new natural gas pipeline recently completed construction - the Mountain Valley Pipeline.



## 5.15 Mountain Valley Pipeline

 The Mountain Valley Pipeline (MVP) is a 303-mile-long (488 km) natural gas pipeline that completed construction in 2024. The pipeline transports natural gas from the Marcellus Shale region of Pennsylvania to the states of Virginia, North Carolina, and South Carolina.

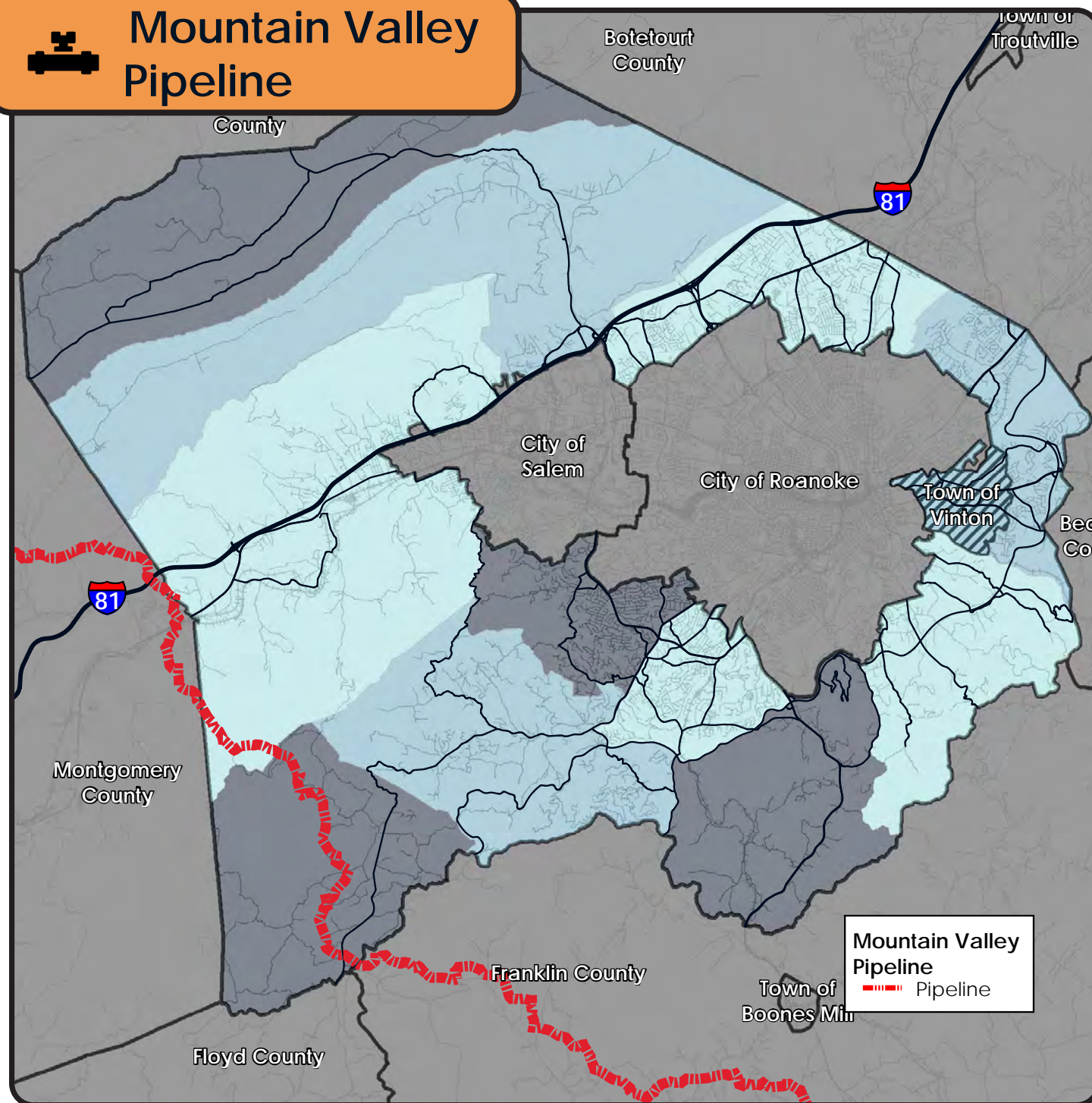
The section of the MVP pipeline that will pass through the Bent Mountain area of Roanoke County can be seen on the map on page 5-38. The construction of the pipeline in this area has been controversial. Some people support the construction of the pipeline, arguing that it will create jobs and economic development for the area. Others oppose the construction of the pipeline, arguing that it will harm the environment and public health, could increase the risk of fires and explosions, could lower property values, and could leak into the groundwater.







## Mountain Valley Pipeline



## 5.16 Communication Infrastructure



Roanoke Valley Broadband Authority (RVBA) is a partnership of the City of Roanoke, County of Roanoke, City of Salem and County of Botetourt. It exists to make the Roanoke Valley, the region comprising these localities, a better place to live and do business by owning and operating a broadband network to improve local internet service for businesses, community institutions and residents. The value of a middle mile network extends to every citizen and business of the Valley. The open-access arrangement of the network promotes competition, increases consumer choice, lowers prices, and incentivizes better service from local internet carriers. By maintaining an open-access fiber network, RVBA seeks to achieve three main outcomes: expanding access and access to new providers; increasing speed and infrastructure capacity; and lowering the cost of internet to make it more affordable for everyone.

There are a number of existing broadband providers in Roanoke County. These include Cox Communications, Comcast, B2X On-Line, and Glo Fiber. These providers offer a variety of broadband services including fiber optic, cable, and DSL. Fiber optic broadband is a service that is delivered over fiber optic cable and is the fastest type of broadband service that can provide speeds of up to 10 gigabit per second (Gbps). Cable broadband is a service that is delivered over coaxial cable as a high-speed broadband service that can provide speeds of up to 1 Gbps. DSL broadband is a type of broadband service that is delivered over copper telephone lines and can only provide speeds of up to 100 Mbps.

The map on page 5-40 shows the coverage for these services with cable-line being the traditional form of distribution and the newly available fiber-optic line expansion shown in red. The availability

of broadband services in Roanoke County varies depending on the location. In general, broadband services are more widely available in urban areas than in rural areas. The map on page 5-41 shows the existing coverage of mobile broadband services based on data speed as well as the location of cellular towers.

The Roanoke County government is working to expand broadband access to rural and unserved areas in the County. In 2021, the County received a \$3.7 million grant from the Virginia Telecommunications Initiative (VATI) to expand broadband connectivity throughout the County. The County partnered with internet service providers to leverage more than \$7.7 million to expand broadband connectivity throughout the County. These four projects will connect nearly 1,400 locations in the region to fiber broadband. These included partnerships between Roanoke County and the following providers:

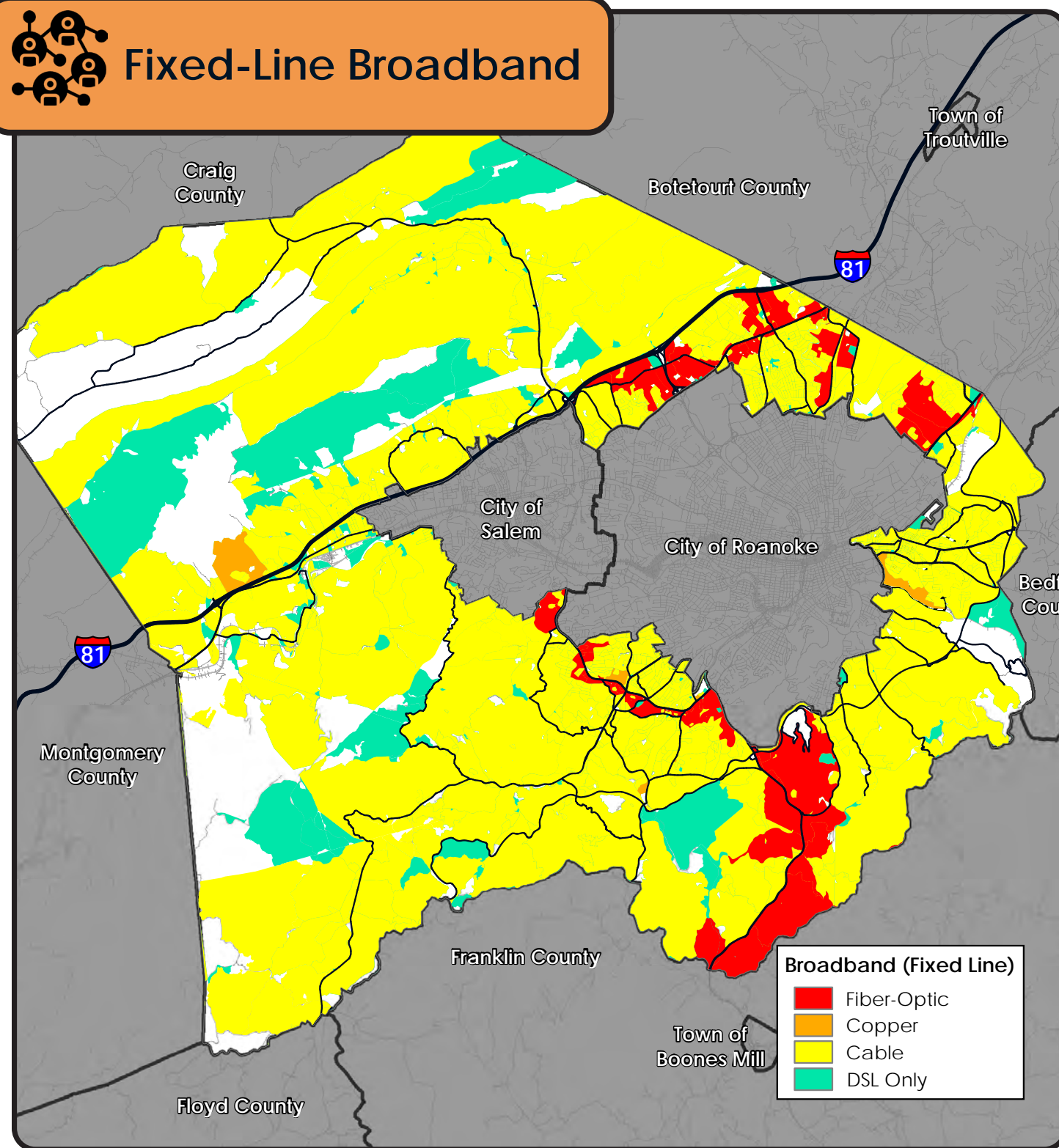
- Craig Botetourt Electric Cooperative will leverage \$1.65 million to expand to 495 locations.
- Cox Communications will leverage \$1.59 million to expand to 396 locations.
- Shentel will leverage \$510,000 to expand to 213 locations.
- B2X Online will leverage \$177,500 to expand to 290 locations.

The expansion of broadband access in Roanoke County is important for a number of reasons including economic development, education, and healthcare. Broadband access can also help to close the digital divide and ensure that everyone has access to the information and resources that they need.

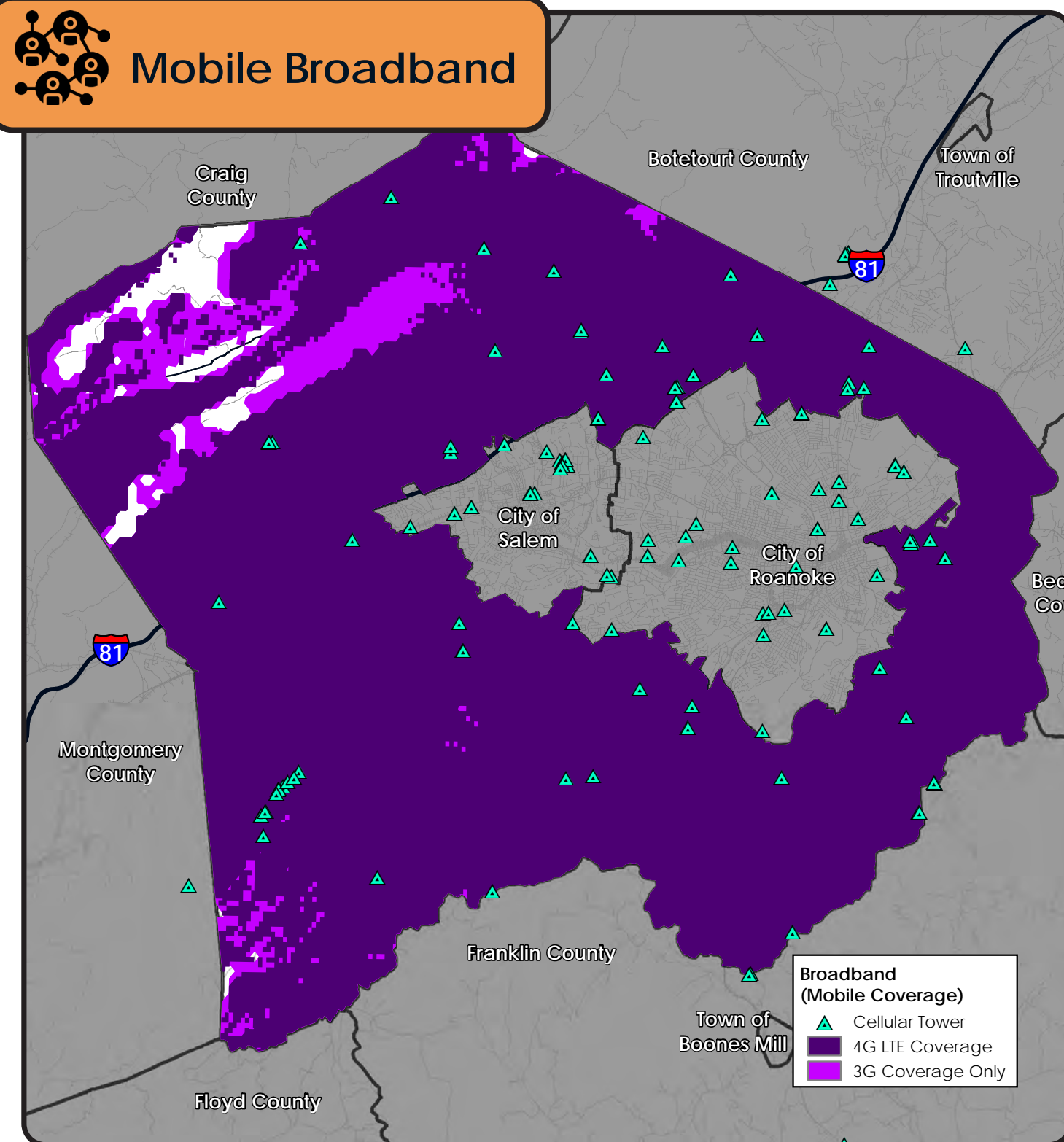




## Fixed-Line Broadband



## Mobile Broadband





## 5.17 Power Infrastructure



Roanoke County has a robust power/electrical infrastructure that is owned and operated by Appalachian Power Company (APCo). APCo is a regulated electric utility that provides electricity to over 1 million customers in Virginia, West Virginia, and Tennessee. The map on page 5-43 shows the existing powerlines transecting Roanoke County with their voltage capacity.

The power/electrical infrastructure in Roanoke County consists of the following:

- **Power plants:** The closest APCo power plant to Roanoke County is the Smith Mountain Lake pumped-storage hydroelectric dam where the Smith Mountain Gorge and Roanoke River converge.
- **Transmission lines:** APCo has a network of transmission lines that carry electricity from the power plants to the substations.
- **Substations:** APCo has a number of substations located throughout Roanoke County. These substations step down

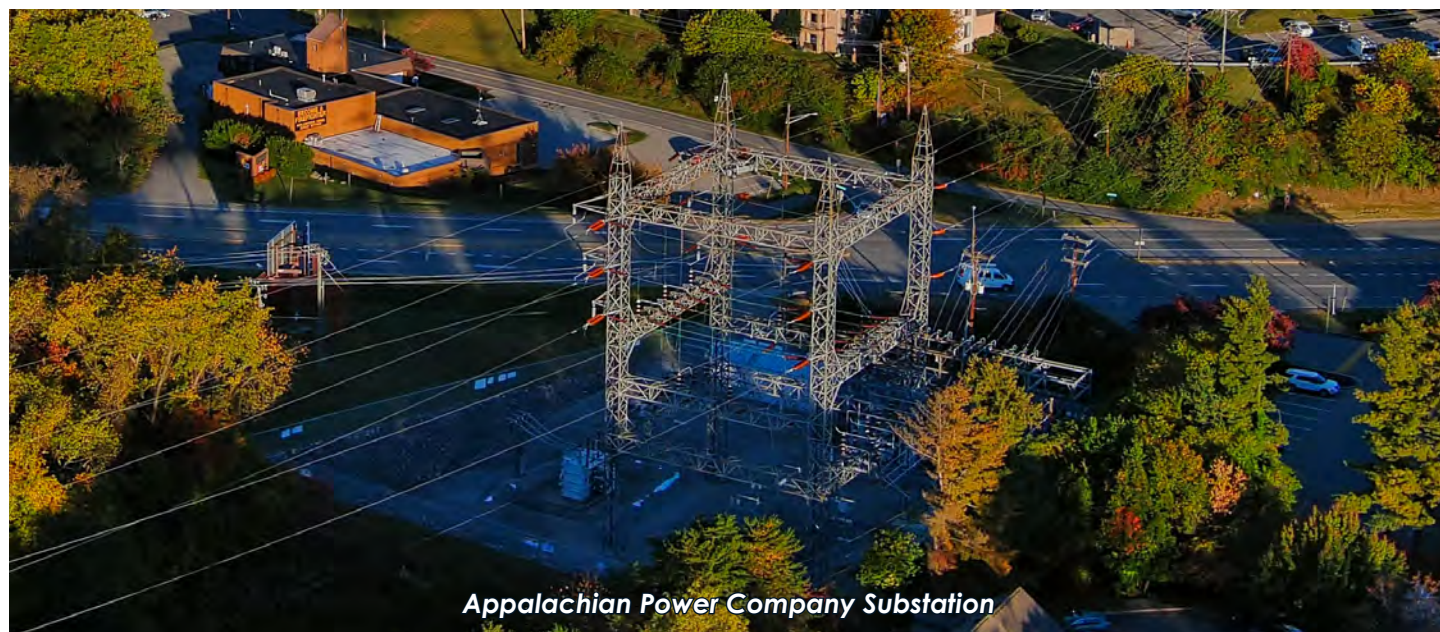
the voltage of the electricity from the transmission lines and distribute it to homes and businesses.

- **Distribution lines:** APCo has a network of distribution lines that carry electricity from the substations to homes and businesses.

The power/electrical infrastructure in Roanoke County is in good condition and is regularly inspected and maintained.

In addition to the existing infrastructure, APCo is investing in new infrastructure to improve the reliability and resilience of the power grid. In 2021, APCo announced a \$1 billion investment in new infrastructure over the next five years. This investment will include the construction of new power plants, transmission lines, and substations.

The investment in new infrastructure is important to ensure that the power grid in Roanoke County is able to meet the needs of the growing population and economy. The investment will also help to improve the resilience of the power grid to extreme weather events.



Appalachian Power Company Substation



## Power Utilities

