

Summary

Water and sewer utilities, water resources, stormwater, telecommunications, and energy comprise the infrastucture that supports life in Buncombe County. This chapter explores the important services and assets that support the daily functions of our residents, businesses, and communities.

Critical to the physical future of Buncombe County are the water and wastewater services provided by municipal partners and the Metropolitan Sewerage District (MSD). These entities determine the location and level of service for water and sewer provided in all areas of the County. Rural communities not receiving municipal scale services are served through private wells and septic systems.

Renewable energy is also a strong priority for Buncombe County. In partnership with the City of Asheville and other partners like Duke Energy and Buncombe County Schools, Buncombe has established important goals and strategies for becoming 100% served by renewable energy sources.

As the County continues to grow, partnership efforts to coordinate these infrastructure and energy partners will be important for achieving desirable growth patterns, supporting county-wide economic development goals, and managing resources to ensure a sustainable future.



Managing and directing growth is largely dependent upon coordination with infrastructure and energy partners that provide the important services and assets that support the daily funcations of our residents, businesses, and communities.

As the County continues to grow, partnership efforts to coordinate on utilities, water resources, and energy will be important for achieving the County's goals.

Photo by Wes Hicks on Unsplash Grove Arcade, Asheville NC

OVERVIEW OF TRENDS & PLANNING INFLUENCES

Buncombe County Services

Utilities supporting unincorporated Buncombe County properties include:

- Water and Sewer: Asheville Water Resources, Weaverville Water System, Woodfin Water District, and the Metropolitan Sewerage District (MSD)
- **Electricity:** Duke Energy and French Broad Electric (investor-owned utilities regulated by the State)
- Telephone: AT&T/Bellsouth
- Natural Gas: Dominion
- **Stormwater:** Buncombe County Stormwater Management Program
- Internet Providers: Options include AT&T, Spectrum, Viasat, HughesNet, EarthLink, T-Mobile, Ultra Home Internet, Frontier, Skyrunner

Water & Wastewater Services

- Municipal water utilities that serve properties across Buncombe County include Asheville Water Resources Department, Biltmore Forest Public Works, Black Mountain Water System, Montreat Water System, Weaverville Water System, and Woodfin Water District. Buncombe County does not provide potable water utility service.
- The Metropolitan Sewerage District (MSD) is a separate entity from local and county governments and manages sewer services for all of Buncombe and portions of Henderson County.
- Many rural properties are served by on-site septic systems and well taps.

Water and Air Resources

- Groundwater and surface water should be considered as a single resource. Buncombe County's residents rely on clean, high-quality water from this resource, which is sensitive to environmental disturbance such as land use and climate changes.
- The City of Asheville owns 22,000 acres of forested mountains as part of its water supply watershed, which is one of the largest watersheds owned by a local government in the nation.
- Balancing the county's uses of water for the purposes of drinking and household needs, agriculture, and industry with the protection of aquatic biota and other natural resources is of critical importance.
- Land protection through agricultural best practices, development ordinances, and conservation easements can help protect Buncombe County's water resources into the future.
- Appropriate floodplain development and flood mitigation efforts are becoming increasingly important due to increased flooding frequency and magnitude. See more about this in Our Resiliency & Hazard Mitigation.
- Air quality management services are provided by the Asheville-Buncombe Air Quality Agency, which is part of an interlocal agreement between Buncombe County and the City of Asheville. This agency monitors air quality conditions to determine compliance with the National Ambient Air Quality Standards (NAAQS) and implements the state and federal air pollution regulations here in Buncombe County. Air quality permits are issued by this Agency.

BUNCOMBE COUNTY FACTBOOK - 2022

- Buncombe County is currently attaining the health-based National Ambient Air Quality Standards for ground level ozone and fine particulate matter. While air quality has improved in recent years, EPA reevaluates the standards every few years and the trend is that they become more stringent. Manufacturing and other facilities with significant air pollution emissions and major highway projects are subject to additional emissions limits and requirements in areas that do not meet the national standards.
- Incorporating air quality considerations into parts of our ordinances where appropriate including land use, transportation, and development is beneficial. Working with the local agency and other partners including the Land of Sky Clean Air Campaign to implement voluntary pollution reduction projects will benefit this resource, environmental protection, community health, and sustainability efforts related to reducing greenhouse gases.

Stormwater

- Stormwater management services are provided through the Buncombe County Stormwater Management Program for the unincorporated portions of Buncombe County and for Biltmore Forest, Black Mountain, and Weaverville. Asheville, Montreat, and Woodfin administer their own stormwater management programs.
- Buncombe County's permitting process and ordinance for stormwater management varies by location in Buncombe County.
- Evaluating and revising stormwater management ordinances will support our infrastructure, as well as environmental protection and resiliency and hazard mitigation efforts.

Telecommunications

- Infrastructure related to telecommunications, like broadband access, is vital for the social connectedness, health, and financial well-being of Buncombe County residents.
- According to a recent survey, Buncombe County has a broadband adoption rate between 69% and 77%. At least 9.2% of the population in Buncombe County does not have internet access; however, experts estimate that the percentage of unserved is probably over 12%.

 Broadband expansion efforts are being implemented to improve access for Buncombe's residents.

Energy and Sustainability

- Buncombe County has passed a resolution which has set the goal of reaching 100% use of renewable energy within County operations by 2030, and 100% use of renewable energy for the entire community by 2042.
- The County, with the City of Asheville and other partners, is implementing many measures to integrate solar power into municipal-owned facilities, and additionally, is working with the community to increase energy efficiency and build partnerships to increase renewable energy use.



Above: Waterfall on Biltmore Estate Grounds, Asheville, NC. Photo by David

FINDINGS FROM

Utilities and Employees

The number of government employees per 1,000 population is considered a level of service metric. In 2010, Buncombe County had 238,318 residents and a total of 6,310 public employees, compared to a population of 269,452 and 5,855 employees in 2020 (according to the U.S. Census, 2020 Annual Survey of Public Employment & Payroll (ASPEP). Per 1,000 population the County employs fewer FTEs (full-time equivalent employees) in 2020 than it did in 2010. The breakdown by government function is available in the table on the right.

Utilities supporting unincorporated Buncombe County properties include:

- Water and Sewer: Asheville Water Resources, Weaverville Water System, Woodfin Water District, and the Metropolitan Sewerage District (MSD)
- **Electricity:** Duke Energy and French Broad Electric (investor-owned utilities regulated by the State)
- Telephone: AT&T/Bellsouth
- Natural Gas: Dominion
- **Stormwater:** Buncombe County Stormwater Management Program
- Internet Providers: Options include AT&T, Spectrum, Viasat, HughesNet, EarthLink, T-Mobile, Ultra Home Internet, Frontier, Skyrunner

Water & Wastewater Services

Water services in Buncombe County are provided through municipal water divisions that provide potable water service to properties in their incorporated community and, in some instances, to properties in unincorporated Buncombe County. Buncombe County does not provide potable water utility service. The geology of the region lends to naturally-occurring (but unwanted) inorganic compounds such as radon, high levels of iron, and

Buncombe County Public Full-Time Employees (FTEs)			
Government Function	Number of FTEs		
	2020	2010	
Financial Administration	148	126	
Judicial, Legal, and Corrections	204	229	
Police and Fire Protection	289	192*	
Public Welfare	445	408	
Health	215	339	
Solid Waste Management	33	30	
Sewerage	151**	150**	
Parks and Recreation	19	38	
Natural Resources	7	15	
Education	4,183	4681	
Libraries	57	62	
Other	254	190	
TOTAL	5,855	6,310	
Population FTEs per 1,000 Population	21.7	26.5	
*No data available for 2010 FTE for sewerage or fire protection. Source: U.S. Census, 2020 Annual Survey of Public Employment &			

Payroll (ASPEP) **Employed by MSD

manganese. This geology can also lead to difficulty when drilling wells in certain spots of the county.

The water service providers in Buncombe County include:

- Asheville Water Resources Department
- Biltmore Forest Public Works
- Black Mountain Water System
- Montreat Water System
- Weaverville Water System
- Woodfin Water District

There are five water treatment plants serving

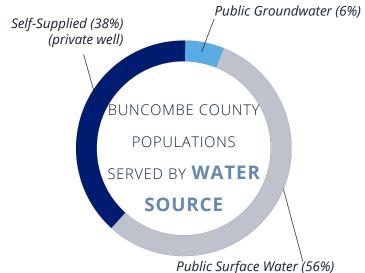
BUNCOMBE COUNTY FACTBOOK - 2022

Buncombe County and neighboring jurisdictions. Three are part of the Asheville Water Resources system (North Fork in Black Mountain, William DeBruhl in Swannanoa, and Mills River near the airport). North Fork and William DeBruhl have high-quality water sourced from the mountains in Buncombe County and surrounding areas. A fourth water treatment plant serves the Weaverville Water System and the fifth serves the Woodfin Water District.

The Buncombe County Metropolitan Sewerage District (MSD) is a non-profit, publicly-owned sewer utility established through the NC General Assembly. The MSD serves residents in Buncombe County and portions of Henderson County. In 1990, the following political subdivisions were consolidated and now make up MSD's service area.

- Avery Creek Sanitary Sewer District
- · City of Asheville
- Beaverdam Water & Sewer District
- Busbee Sanitary Sewer District
- Cane Creek Water & Sewer District
- Caney Valley Sanitary Sewer District
- Crescent Hill Sanitary Sewer District
- Enka-Candler Water & Sewer District
- Fairview Sanitary Sewer District
- Skyland Sanitary Sewer District
- Swannanoa Water & Sewer District
- Town of Black Mountain
- Town of Biltmore Forest
- Town of Montreat
- Town of Weaverville
- Town of Woodfin
- Venable Sanitary District
- Woodfin Sanitary Water & Sewer District

The MSD operates a wastewater treatment plant that is permitted to treat 40 million gallons per day with



142,464 residents (56%): Public Surface Water 96,247 residents (38%): Self-Supplied (private well) 14,467 residents (6%): Public Groundwater

Source: Dieter, C.A., Linsey, K.S., Caldwell, R.R., Harris, M.A., Ivahnenko, T.I., Lovelace, J.K., Maupin, M.A., and Barber, N.L., 2018, Estimated use of water in the United States county-level data for 2015 (ver. 2.0, June 2018): U.S. Geological Survey data release.

1,100 miles of collector sewers, and 170 miles of large diameter interceptor lines that convey flow to the treatment plant. Since the MSD is a separate entity from local and county governments, its growth efforts are not required to coordinate with local government planning efforts.

Water & Air Resources

Drinking Water Supply and Water Quality

Buncombe County's residents access water resources in three primary ways: public supply surface water, public supply groundwater, and domestic supply groundwater. (See the "Water Resources Map" on page 101 for the geographic context of the locations described in this section.)

The City of Asheville owns 22,000 acres of forested mountains surrounding its primary watershed, which makes it one of the largest municipally owned watersheds in the United States. ATo protect its watershed, most of the land is reserved in conservation easements and protected from development and pollution.

The City of Asheville Water Resources Department owns and operates three water treatment plants. The watersheds that supply the drinking water for the North Fork and Bee Tree Reservoirs are pristine due to surrounding land conservation. The reservoirs are fed by pure mountain streams, which are protected from industrial and agricultural contaminants. The Mills River watershed is less pristine, but provides a valuable water source, especially as population grows. The facility was built with the intent to expand with growing demand. The Mills River watershed covers 47,440 acres, 75% of which lies in the Pisgah National Forest. It includes a trout fishery, fish and wildlife habitat, and is a recreational resource. The Mills River plant uses ozone in addition to chlorine for disinfection.

The Woodfin Water District (WWD) provides water to the residents of the Town of Woodfin and portions of Asheville, Weaverville and unincorporated areas of Buncombe County. Source water is purchased from the City of Asheville or pulled from its reservoir at the headwaters of Reems Creek. The WWD owns the entire Sugar Camp Fork and Laurel Fork watersheds. This land adjoins Pisgah National Forest and the Blue Ridge Parkway.

The Town of Weaverville operates its own water treatment plant along the lvy River. Much of the headwaters area of the lvy is in Pisgah National Forest, however, large portions of the watershed are privately owned.

The towns of Biltmore Forest, Black Mountain, and Montreat secure public water from other utilities and manage the municipal water distribution system that serves residents living within their jurisdictions.

Residents of Buncombe County not served by these municipal systems depend primarily on untreated groundwater withdrawn from the Blue Ridge crystalline-rock aquifer through private wells. While the aquifer is an enormous resource for high quality water, the geology of the region lends to some naturally occurring (but unwanted) inorganic compounds such as radon, and high levels of iron and manganese. Groundwater resources are also dependent on having pervious surface and practices which promote their recharge and sustainability.

The Metropolitan Sewerage District of Buncombe County (MSD) provides wastewater collection and treatment services to approximately 56,000 customers (with an estimated population of 173,000) located in several municipalities and certain unincorporated areas in Buncombe County and Henderson County. MSD maintains approximately 1,100 miles of public sewer pipes, ranging from 6" to 66" in diameter. MSD oversees 41 pump stations and averages 22 million gallons of wastewater through the plant every day. However, 40% of that is from infiltration and inflow, which means it comes from sources that are not supposed to be entering the system, such as groundwater and rainwater.

The treated water is returned to the French Broad River, which amounts to less than 2% of the downstream flow. MSD owns and operates its own hydroelectric power generating facility. This facility reduces MSD's energy costs by \$300,000-600,000 annually, depending on the water levels in the French Broad River. The treated water entering the river has a lower bacteria count than the river. Outside of MSD's district, residents of Buncombe County treat wastewater with private septic systems. These must be maintained regularly to operate effectively.

Approximately 158 miles of streams and rivers occurring within Buncombe County carry the designation of High Quality Waters (HQW). HQW is a North Carolina Division of Water resources supplemental classification intended to protect waters which are rated excellent based on biological and physical/chemical characteristics. These waters can be used as a water supply or the highest levels of recreation such as swimming and fishing.

Portions of the French Broad River, Swannanoa River, Newfound Creek, Ivy Creek, Cane Creek, Smith Mill Creek, and Ross Creek are on the EPA's "303(d)" impaired waters list (shown in red in the map below). The "303(d)" list is a state's list of impaired waters that do not meet specific water quality standards. All but one of the waterbodies on the list (Ivy Creek) are designated as not supporting adequate aquatic life, specifically benthic macroinvertebrates which are important indicators of overall water body health. Ivy Creek is designated as exceeding pathogen standards for fecal coliform bacteria.

Lack of riparian buffer, agricultural runoff, wastewater leaks, impervious area, septic failures, and stormwater runoff are the biggest stressors to the health of these waterways. Sedimentation and erosion continue to be prevalent problems in our waterways. They are exacerbated by the larger, more frequent flood events associated with climate change.

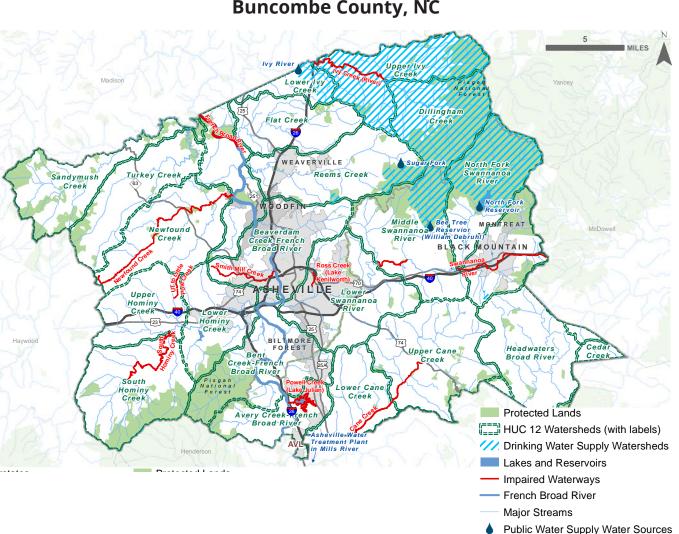
Air Quality

Air quality management services are provided by the Asheville-Buncombe Air Quality Agency, which is part of an interlocal agreement between Buncombe County and the City of Asheville. This agency monitors air quality conditions to determine compliance with the National Ambient Air Quality Standards (NAAQS) and implements the state and federal air pollution regulations here in Buncombe County. Air quality permits are issued by this Agency.

While air quality has improved in recent years, EPA reevaluates the standards every few years and the trend is that they continue to become more stringent. Manufacturing and other facilities with significant air pollution emissions and major highway projects are subject to additional emissions limits and requirements in areas that do not meet the national standards.

Stormwater

Stormwater management is the effort to reduce runoff of rainwater or melted snow into streets, lawns and other sites and the improvement of water quality, according to the United States Environmental Protection Agency (EPA). Each municipality has varied approaches to stormwater management. The table on the next page outlines the applicable permitting process or ordinance and the governing authority related to stormwater. Continuing to evaluate and revise the stormwater management ordinances in accordance with changes as mandated by state law will be important across Buncombe County, as covered in Our Resiliency and Hazard Mitigation.



Water Resources Map Buncombe County, NC

Stormwater Services Governance			
Municipality	Governance	Permitting/Ordinance	
Buncombe County	Stormwater Management Program– Buncombe County Planning and Development Department	 Stormwater permits are required for residential development disturbing one acre or more. Commercial activity requires permitting for any property of one acre or larger. All developers must install permanent measures to control the rate of runoff to that which existed prior to development for the 1 Year 24 Hour storm events. Stormwater Plan Review Process & Stormwater Management Ordinance "Except as otherwise expressly stated, the stormwater management regulations of this article apply to all development within unincorporated Buncombe County outside the extraterritorial jurisdiction and incorporated boundaries of any municipality." 	
City of Asheville	Stormwater Services and Utility, City of Asheville Department of Public Works	Stormwater, Soil Erosions and Sedimentation Control, Illicit Discharge and Connection Ordinance "A permit application, intended to provide a mechanism for the review, approval, and inspection of the practices and measures for erosion, sediment and stormwater management and control, is required for all development and redevelopment unless exempt pursuant to this section."	
Town of Montreat	Stormwater–no specific department or program	Code of General Ordinances - Article III: Stormwater Management "The Codes Administrator shall serve as the Stormwater Administrator by designation of the Board of Commissioners." "A Stormwater Control Permit is required for all development and qualified redevelopment on lots with: Disturbed area of 5,000 square feet or greater; or At least 24% total lot area developed to include impervious cover; Or addition of 2,500 square feet or more impervious surface, unless exempt pursuant to this ordinance."	
Town of Biltmore Forest	Buncombe County Planning and Development Department	Code of Ordinances - Chapter 52: Stormwater Management Town of Biltmore is managed at the County level by Buncombe County Planning and Development Department	
Town of Black Mountain	Stormwater Management Program, Black Mountain Planning and Development Services	Code of Ordinances - Chapter 52: Stormwater Management Town of Biltmore is managed at the County level by Buncombe County Planning and Development Department	
Town of Woodfin	Stormwater Management, Environmental Services Department, Town of Woodfin	Stormwater Management Plan Draft (2021) "The Planning Department will oversee the implementation of the stormwater program and permit compliance and will coordinate and manage the SWMP. The Public Works Department will assist with Pollution Prevention and Illicit Discharge. In addition, the Town of Woodfin is partnering with the Buncombe County Stormwater Department to oversee Post-Construction Stormwater Management and with Buncombe County Sedimentation and Erosion Department to oversee Construction Site Run-off Control."	
Town of Weaverville	Stormwater Management Program, Town of Weaverville Planning and Public Works Departments	Stormwater Management Plan Draft (2021) "All permitting and inspection of stormwater systems is done through the County's Planning and Development Department and its Soil and Erosion Control Division and Stormwater Divisions."	

Sustainability & Renewable Energy

Energy Use in Buncombe County

In Buncombe County, approximately one-third of energy is used by industrial sources and one-third is used by non-municipal commercial sources. Municipal use makes up 0.9% and residential use is slightly less than one-third of the total energy consumption.

The current energy mix includes: 41% natural gas from Dominion, 27% nuclear, 14% natural gas/oil, 13% coal, 3% solar, 0.9% hydropower, and 0.7% from other sources.

Sustainability is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainability and renewable energy are a major focus for Buncombe County as climate change demands action from residents, private, and non-profit partners. The County has instituted a Sustainability Office to address how the County can reduce its carbon footprint and set renewable energy goals. The County's *2025 Strategic Plan* identifies Environmental and Energy Stewardship as a top focus, with reducing greenhouse gas emissions as a goal.

Integrating Sustainability Throughout All Levels of the County

The County developed goals and objectives in the Buncombe County Sustainability Plan that "address the wide-reaching and interconnected needs and desires of our community." The County, in partnership with the City of Asheville, has two renewable energy goals: 100% by 2030 for internal operations and 100% for the whole County by 2042.

Strategies include:

- Integrate renewable energy into all government-owned facilities and lease properties to utilities for renewable energy generation
- Engage the community in renewable energy integration into their own properties and provide other resources

If no action is taken, only 8.1% of the community's electrical supply will come from renewable energies (by 2042). The plan includes phasing out hydropower by 99% in 2030 and decreasing coal output by 33% by 2030. Statelevel energy policies limit some action in this area. Solar leasing, local on-site distributed generation, REC purchasing, and bulk purchasing are permitted by the state; however, the following are not permitted: third party ownership, wind power, or a statewide cap and trade program. Community solar, net energy metering with restrictions may be permitted. Buncombe County's challenges to renewable energy are two-fold: 1) needing to maintain low cost energy to the community without increasing taxes or reducing funding to other programs; and 2) limited amount of land for renewable energy development.

The Moving to 100 Percent Renewable Energy Transition Pathways Analysis for Buncombe County and the City of Asheville was completed in 2019. The following are some of the potential strategies suggested from this plan.

Policies/Strategies Performed by the County



Buncombe County's Sustainability Plan lays out goals and objectives of how sustainability can be integrated throughout all departments.

for 100% Renewable Energy

- Continue to install renewable energy systems on government owned buildings and property. Some of this has been adopted at fire departments and schools.
- Assess ways to streamline permitting, zoning, and inspection process for renewable energy generation facilities.
- Lease of land or County-owned buildings to utilities for local renewable generation. A recent example of this effort is the leasing of 25-acres of Buncombe County's retired landfill for a solar farm.
- Continued investment in energy efficiency technologies and continue to participate in efforts like the Blue Horizons Project (see below). This effort is particularly concentrated on lowerincome areas of the community.
- Dedicate staff time and resources to monitor and engage in conversations on state level and utility level policies.
- Pursue group purchase campaigns or aggregated purchase of renewable energy with partners.
- More long-term actions are addressed further

below in Considerations for the Future, a subsection of this chapter.

Community Partnership for a More Sustainable Future

The Blue Horizons Project: The Blue Horizons Project is a community council that includes the County, the City of Asheville, and many others that have a stake in seeing a more sustainable future. It provides resources for businesses and residents to improve their energy efficiency and access to renewable energy. Much of the work done to achieve the County's community-wide 100% renewable energy goal will be done hand-in-hand with community partners, many who are engaged in the Blue Horizons project.

Clean Air Campaign/Clean Cities/Clean Vehicles

Program: A regional effort led by the Land of Sky Regional Council has worked with local governments to plan for increased opportunity for cleaner alternative fuels and has had a major impact on improving access to charging stations and access to bio-fuels. The Clean Air Campaign provides educational opportunities including educational credits and media outreach for clean air projects and promotes voluntary clean air initiatives with local partners.

Telecommunications



Buncombe County Renewable Energy Plan: reach **100%** renewable energy for the community by 2042



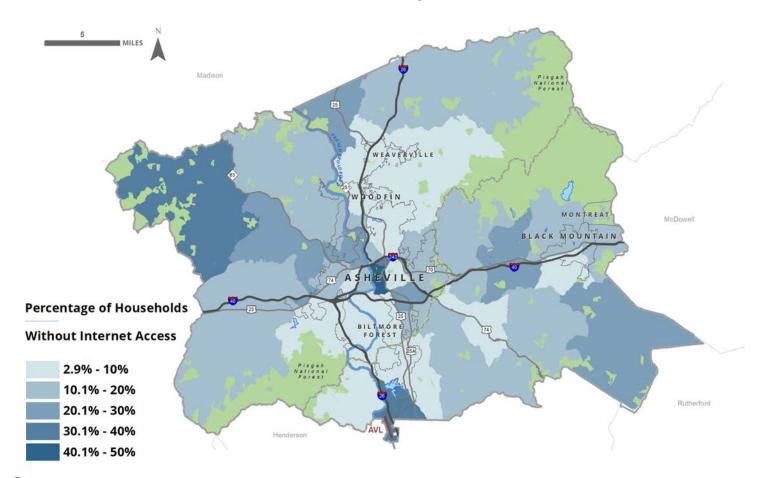
If no action is taken, only **8.1%** of the community's electrical supply will come from renewable energies by 2042

According to the Buncombe County Broadband Community Profile, prepared by the Land of Sky Regional Council in 2019, Buncombe County is a central point for much of the fiber assets connecting through the Western North Carolina region.¹ While North Carolina does not permit local governments to treat broadband as a public utility, Buncombe County is prioritizing increasing broadband access as an essential component of supporting its residents.

The adoption rate for broadband is analyzed from factors including availability, income, level of education, and elderly or disabled status. Buncombe County has a broadband adoption rate between 69% and 77%.² Based on the Land of Sky survey, at least 9.2% of the population in Buncombe County does not have internet access; however, experts estimate that this percentage of unserved populations is probably over 12%.

Funded by the American Rescue Plan Act of 2021, \$11.3 million for county investment projects were announced in August 2021.³ Buncombe County is set to receive \$4.5 million of those funds for broadband expansion efforts and \$4 million for supporting infrastructure improvements to under-served areas. The Land of Sky Regional Council will utilize \$500,000 for "Broadband in Buncombe: Connecting All Communities" project. This project has two goals: first, to implement the second phase of an internet access project for Housing Authority facilities, and two, to support digital literacy efforts for senior residents, low-income individuals, those formerly incarcerated, and those learning English as a second language.⁴

The following map identifies the percentage of households by U.S. Census tract that are without internet access in Buncombe County. (See page 12 for more information on U.S. Census data on internet availability in Buncombe County.)



Internet Access Map Buncombe County, NC

CONSIDERATIONS FOR **THE FUTURE**

Overview

The county's natural and built systems (water and air resources; potable water, wastewater, and stormwater systems; telecommunications/broadband infrastructure; and harnessed energy systems) that support existing residents and businesses must be maintained and improved to support new growth and meet new community sustainability objectives. The following ideas should be considered for inclusion in the comprehensive plan:

Coordinate Public Water and Wastewater Service with Plans for Growth:

 Consider strategies to coordinate municipal and county plans for growth. This includes working with utility providers to prioritize water/sewer investments in priority growth areas and away from areas that are not targets for growth or needed for health and safety objectives.

Protect Water and Air Resources

- Consider reviewing county ordinances with the aim of identifying opportunities to enhance clean air resources.
- Conserve soil, water, and air resources to ensure a continued supply of clean water for drinking, agricultural, and recreational uses. These efforts will also protect the ample natural resources of the area.
- Continue protection of watersheds through conservation easements, implementation of riparian buffers and stream improvements and ordinances which regulate stormwater runoff and promote groundwater recharge.
- Look for opportunities to implement stream improvements in the development and protection of sewer and stormwater assets.
- Partner on the development of watershed action plans and subsequent monitoring to measure results of implemented projects and practices.

- Create a policy that strengthens the conservation of floodplains, especially the most flood prone areas to mitigate increased flooding associated with climate change.
 For more information, see Our Resiliency & Hazard Mitigation.
- Create a policy to conduct a green infrastructure audit report of the County's ordinance to identify opportunities for improvements to policy throughout. It is typical to look solely at the stormwater chapter of the ordinance for stormwater policy improvements. Green infrastructure improvements can holistically be incorporated into many chapters of the ordinance, not just stormwater policy. This audit could also find ways to integrate the use of green infrastructure in other County plans, like the *Sustainability Plan*.
- Look for opportunities to partner on projects with local partners to reduce emissions of criteria pollutants and green house gas emissions.
- Review ordinances to look for opportunities to enhance clean air resources.

Advance Energy Conservation and Sustainability:

- Consider developing a policy to require solar installation on all new government-led construction or retrofits for the City and County.
- Continue to support bulk purchasing programs, which would involve working with many different community partners to procure solar equipment.
- Consider establishing a revolving investment fund for renewable energy projects.
- Continue to advocate for changes in state policy including new renewable energy mandates, an allowance for power purchase agreements—or energy sold from nonutility partners, an increase in the renewable energy portfolio standard, implementing a "state green bank," and enabling community shared solar.
- Support efforts to expand electric vehicle charging infrastructure in county fleet and in public spaces.

Endnotes

1 Buncombe County Broadband Community Profile (June 2019). Land of Sky Regional Council. http://www.landofsky.org/pdf/ LGS/Broadband/BuncombeCounty_CommunityProfile2019.pdf

2 Buncombe County Broadband Community Profile (June 2019). Land of Sky Regional Council. http://www.landofsky.org/pdf/ LGS/Broadband/BuncombeCounty_CommunityProfile2019.pdf

3 Jones, A. (2021, February 12). "Tired of waiting": Millions of dollars in NC budget heading to Buncombe for broadband. Asheville Citizen Times.

4 Buncombe County Coronavirus Recovery Fund Investments. https://www.buncombecounty.org/common/ community-investment/grants/covid-recovery-funding/fundedprojects.pdf



Image by Equinox