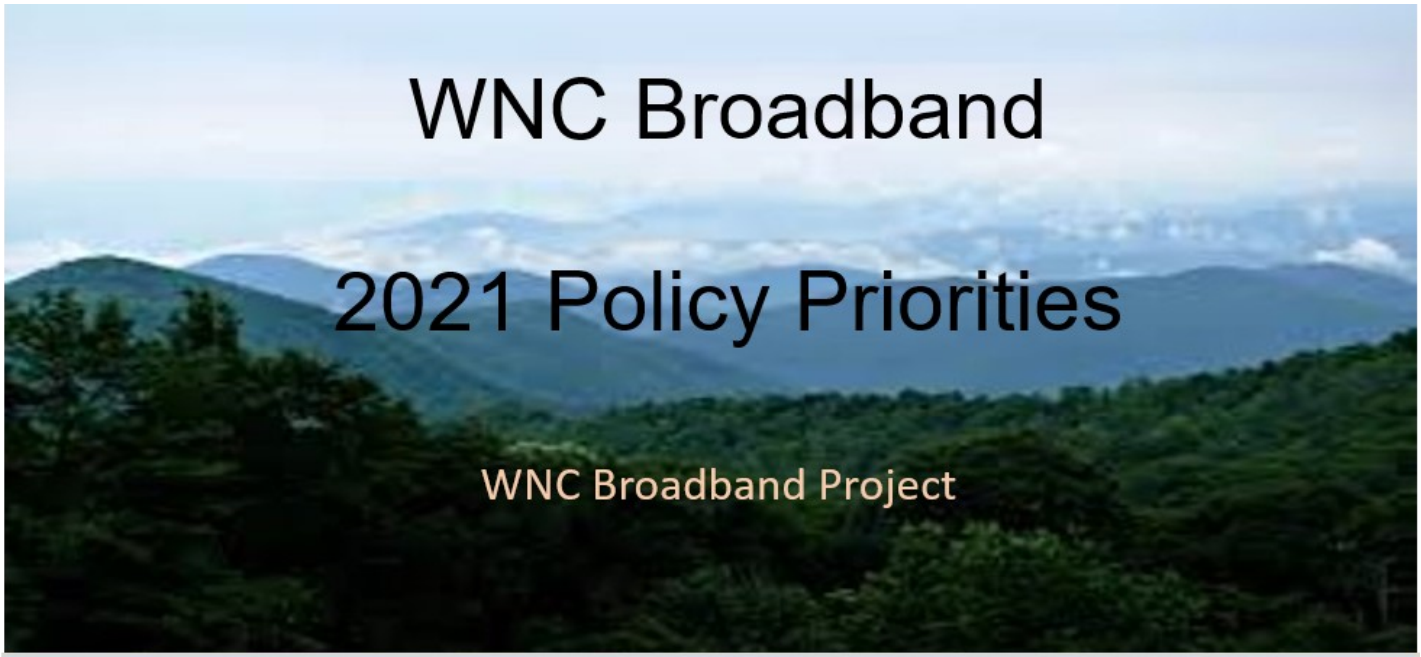
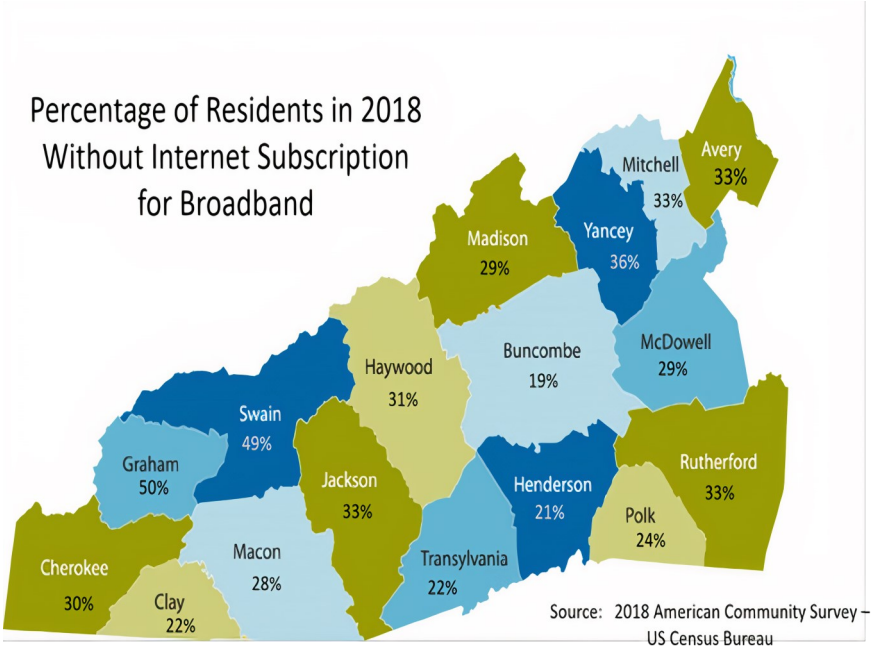



# The Need for Better Broadband is Clear

We know from surveys conducted by Land of Sky Regional Council (serving Buncombe, Henderson, Madison and Transylvania Counties) that roughly **13% of the public-school children do not have internet at home**. School representatives report that between **35 and 40% cannot adequate high speed broadband for educational purposes**.

This is consistent with findings of the 2018 American Community Survey conducted by the Census Bureau. According to federal data, the **percentage of homes without an internet service provider (ISP) agreement in Western North Carolina varies from 50.3% in Graham County to 19% in Buncombe County.** The federal data does not distinguish or identify poor or inadequate service.




The Covid-19 Pandemic has demonstrated the critical need for universally available and affordable high-speed broadband internet access for delivering quality remote education, tele-medicine, and work-from-home capability. Policy makers must lead an initiative to solve the WNC "digital divide" between the wealthy and the under-resourced and between our urban and non-urban residents.

Given the importance of broadband and the growing digital divide in our region, policy makers must create enabling legislation and policy that will ensure universally available and affordable broadband now.

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Broadband allows citizens more affordable and efficient access to basic amenities such as education, healthcare, public safety and government services. However, from both an availability and affordability perspective, there remains a vast digital divide in Western North Carolina. Now is the time to enact policies that will enable all residents to obtain better internet service.

To close the digital gap, political leader's need to advocate for the following:

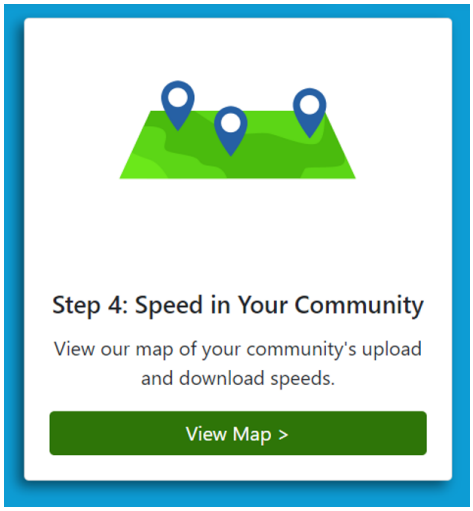
1. **Leadership**: Regional foundations, governments, and businesses should step-up to the challenge by making broadband service affordable and available. Broadband service requires a regional approach and the coordinated efforts of Western North Carolina leaders and lead institutions. Every large organization should have a person assigned to understand broadband service issues within the region and to work in collaboration with others to prioritize broadband service affordability and availability.

2. **More Funding:** Creating universally available broadband service, both fixed and mobile, for all of Western North Carolina requires the investment of significant public and private dollars. County and city governments in partnership with private internet service providers need to aggressively pursue all sources of federal and state funds that support broadband buildout. In addition, local governments may need to consider supplementation with local funds.

3. **Support for Those in Need:** Even if broadband is universally available, not everybody may have the devices, education, and or funds to procure on-going service. Local governments partnering with local nonprofits should develop on-going support programs to ensure accessibility and affordability for all, particularly low-income residents.


## 4. Reduced Regulation and Improved Access to Public Infrastructure

: Recognizing Western North Carolina has low population density and a difficult terrain, counties and cities may have burdensome regulations that can be reduced and useful assets that can be beneficially shared with internet service providers (ISP). For ISPs anxious to expand their broadband system reduced regulation, including a streamlined permitting process, and access to certain cell towers, easements, right of ways, etc. may enable an ISP to make the investment for broadband system expansion.




From WNCBroadband.org

## 5. Better Mapping:

Inaccurate mapping, as investigated by Congress, makes it: problematic to determine broadband service availability at the street address level, difficult to measure progress, and challenging to build out service to those without internet access. Unfortunately, the Federal Communications Commission (FCC) will take years to correct this. NC should pass legislation requiring accurate reporting by ISPs and/or local governments so that accurate local maps can be developed.

# 2021 Policy Recommendations by Category

The following policy recommendations are the consensus of a group of individuals committed to improving high speed internet in Western North Carolina. This agenda does not reflect the official policy positions of organizations with which these individuals may be associated.

## State Policy

To its credit, the state has become increasingly involved in supporting broadband expansion and providing guidance to local governmental units.

**Broadband Task Force:** In 2019 Governor Cooper issued Executive Order No. 91 creating a task force to enhance efforts to implement high-speed internet across the state. We support the continuation and expansion of the task force to include a broader coalition of citizens, including legislators.

### Broadband Infrastructure Office:

The state created the office of Broadband Infrastructure Office (BIO) in 2015 to be a statewide resource for (a) expanding broadband access to underserved communities, (b) supporting digital learning by extending Wi-Fi access to every classroom in the state and (c) providing policy recommendations and guidance to government leaders and key stakeholders to foster digital infrastructure expansion, adoption, and use.

We urge continued and expanded support for the BIO and suggest the BIO be charged with creating a state infrastructure need analysis and state map by using a similar process currently being used by the state of South Carolina.

# 2021 Policy Recommendations by Category

## State Policy

**Infrastructure Bonding:** Broadband should be considered as part of the state "infrastructure." Future bond proposals to improve infrastructure should include broadband expansion.

**Statewide & Local Mapping:** Identifying underserved areas is a major task that is currently not adequately addressed. We urge North Carolina to follow the lead of South Carolina in requiring internet service providers to provide information to state policy makers about broadband coverage.

The South Carolina law (P.A. 142) of 2020 asks internet service providers and broadband infrastructure owners to supply mapping information, including upload and download speed by address and the type of technology provided. Given that the state is providing millions of dollars to internet service providers, such a requirement in North Carolina is appropriate.

The mapping requirement should be done at both the state and local level by regional planning organizations and county governments.

We support the effort by UNC Asheville and the *National Environmental Modeling and Analysis Center (NEMAC)* to find better ways to map broadband coverage in the region.

# 2021 Policy Recommendations by Category

## State Policy

**GREAT Program:** The NC legislature enacted the GREAT program (*Growing Rural Economies with Access to Technology*) in 2018 to provide grants to internet service providers to expand services in areas of need in partnership with local governments. We support changes in the GREAT program as follows.

**A major increase of funding from of $100 million to $300 million is needed.**

The threshold for **eligibility for funding should be a minimum of 25/3** (down-speed and up-speed) Mbps capable of expansion to at least 100/10 Mpbs within 5 years.

The use of county tiers to establish **eligibility should be replaced by a more sophisticated system** of measuring and mapping underserved areas.

Until the outdated tier system is replaced, GREAT should be amended to **allow funding for Tier 3 counties that can show a critical need** or where the geography of Tier 1 and Tier 2 grants extend into Tier 3 counties.

MAY 25, 2018 BY ADMIN

GREAT Program to Increase Rural Access to Broadband in North Carolina

Share Tweet

**Raleigh, N.C.** – North Carolina House and Senate leaders on Thursday announced the state budget will include the Growing Rural Economies with Access to Technology (GREAT) program to facilitate the deployment of broadband to unserved communities in rural North Carolina.

***"We live in a global economy where broadband is essential to providing economic opportunities for individuals and small businesses,"*** *said Senate Appropriations/Base Budget Committee co-chairman Sen. Harry Brown (R-Onslow).*

From Speaker Tim Moore's Website

A priority should be given for grants to families that will allow parents or the infirm to reach all of their enrolled students or patients through telemedicine initiatives that are done in partnership with health care providers.

# 2021 Policy Recommendations by Category

## Federal Policy

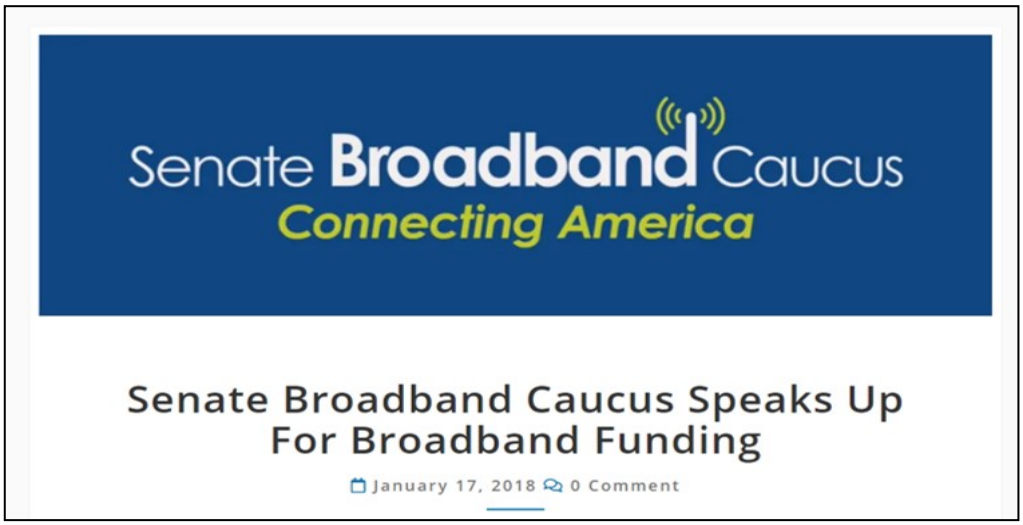
The federal government establishes broadband policy nationally and provides the bulk of public funding. We urge North Carolina Congressmen and Senators to support the following.

**Funding:** The federal government is likely to be the source of most money for broadband expansion.

The federally enacted **CARES legislative supplied millions of dollars** for state and local governments. North Carolina has appropriated some of the money for broadband. Future federal action should include broadband.

There is some conversation in Washington about **enacting a major "infrastructure" bill** for restoring our highways, bridges and other physical assets. If this occurs, broadband should be considered an essential infrastructure.

North Carolina federal representatives should work collaboratively **to continually scan the legislative environment for opportunities** for funding broadband projects in NC.




From NTCA Website 2018

# 2021 Policy Recommendations by Category

## Federal Policy

**USDA USA Re-Connect Program:** The Re-Connect Program is used to build infrastructure for essential internet e-Connectivity services to rural areas without sufficient access to broadband, through loans and grants. Funding for this program has been auctioned so there are no new opportunities here. If a CAF II auction winner defaults on the build-out requirements, the territory will be reauctioned at a later date. If opportunities emerge, the Re-Connect program should be expanded to include semi-rural (non- agricultural areas).

**Rural Digital Opportunity Fund (RDOF):** The RDOF was established by the Federal Communications Commission to provide broadband funding for areas that are unserved and underserved. Funds are awarded through a "reverse auction" process where broadband providers bid by identifying how much funding they need to provide service over a ten-year period. The lowest bidder wins the auction. Phase I will award up to around $16 billion for entirely unserved areas (broadband of less than 25 Mbps download speed), an auction to be conducted in October 2020. Phase II will award up to around $4.4 billion for remaining unserved and underserved areas.

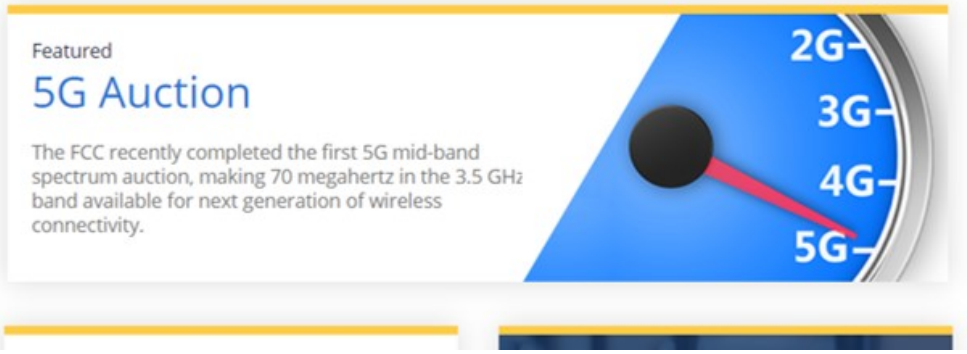

**e-Connectivity for all rural Americans is a modern-day necessity.**

United States Dept. of Agriculture Website

# 2021 Policy Recommendations by Category

## Federal Policy

**5G Wireless Fund:** The FCC has proposed to establish a 5G Wireless Fund that is designed to provide support to wireless providers for up to $9 billion to bring rural 5G wireless systems to rural areas. Phase I would provide up to $8 billion, and Phase II, $1 billion. No schedule has been established for adopting final rules, but the FCC would like to begin the "reverse auction" in 2021. North Carolina should make a major effort to qualify for and receive these funds, with special emphasis on helping mountainous areas.




FCC Website Oct. 2020

**Broadband Mapping:** The current FCC Form 477 data collection process collects broadband data from service providers by census blocks. One subscriber in a is enough to report the census block as served. The current mapping is widely recognized as overreporting broadband availability, particularly for wireless customers.

The FCC has agreed to a new data collection project, and modified it to comply with legislation, the Broadband DATA Act, to vastly improve the mapping process. The new maps will take granular detail from providers, state, local, and tribal governments, and third parties to create more accurate maps. Although the FCC has adopted detailed rules to create the new mapping, it is waiting for congressional funding to establish the computer systems necessary to create the maps. We support funding this initiative.

# 2021 Policy Recommendations by Category

## Federal Policy

**Dig Once Policy:** A federally enacted "dig once" policy will facilitate the expansion of broadband. A proposed law "mandates the inclusion of broadband conduit during the construction of any road receiving federal funding in areas that lack access to broadband internet service." The bill was expanded to include any federally financed construction project and the creation of a task force to oversee its implementation. We support the "Nationwide Dig Once Act of 2020.".


From "Broadband Now" website – August 2019

**"Next Gen 911" standards**: The state of North Carolina is in the last stages of implementing a Next Generation 911 (NG911) to ensure that residents access 911 services regardless of their location or the communication technology they use. NG911 is the transition from legacy 911 systems to an internet protocol-based system for routing digital information (i.e., cellphone calls, text messages) to the appropriate 911 call center, also referred to as a public safety answering point (PSAP). We urge support for North Carolina to complete the transition.

# 2021 Policy Recommendations by Category

## Local & Regional

**Base Budget Funding:** **Annual "base budget" funding should be used** to finance broadband staff and programmatic initiatives in the regional councils and the larger county governments.

**Local Planning:** Local counties have received small grants from the ARC to facilitate broadband planning. The **grants should be used as a catalyst** for counties and cities to create their own broadband plans and to include broadband in county, city and regional planning initiatives.

**Digital Divide:** Greater attention needs to be given to the digital divide in urban areas. We urge foundations, schools, cities and counties ensure that **every "at risk" student or patient have access to adequate wi-fi** or cable to ensure they are not technologically disadvantaged.

The Asheville Housing Authority should be supported to bring high speed wi-fi to their residents.

All school districts should receive adequate support to supply wi-fi "hot spots" for the students whom do not have adequate coverage.


EDUCATION

Digital divide plagues North Carolina's urban neighborhoods

Devna Bose The Charlotte Observer

Published 8:00 a.m. ET Aug. 28, 2020

From Wilmington Star Tribune

Community colleges should play a leadership role in educating residents about how to use technology, help recycle used computer equipment and provide on-line options for training of residents.

**ERC Broadband:** ERC Broadband is a critical player in assisting governmental and non-profit organizations obtain broadband. We support "building out" middle-mile broadband fiber through ERC Broadband and the state allowing ERC and other providers to governmental units to also provide connectivity to underserved areas.

# 2021 Policy Recommendations by Category

## Foundations, Education & Health Care

**Foundations:** The Dogwood Trust, WNC Community Foundation, Greenleaf Foundation and others can provide great regional leadership by taking the following steps.

Make a **real commitment to broadband as core to regional transformation strategy** by appointing staff to be liaison to local efforts, committing significant funds, and providing intellectual leadership

Build **"revenue sharing" models** for local citizen groups, such as consumer-owned "cooperatives" (similar to the co-op model used for electrical services).

Be a **catalyst for bringing diverse groups of organizations and people together** in order to build regional strategies for the use of broadband in policy areas such as tele-medicine, education, tourism, and economic development.

**Education & Health Care:** Education and health care have been challenged to provide services "virtually" instead of in-person. The movement to the on-line services has placed great stress on schools and health providers.

We urge schools to monitor what students do not have access to broadband and **assist families by providing hardware and local wi-fi availability for all students**.

Schools should **expand the current initiatives to provide "hot spot" wi-fi connections**, provide wi-fi on school buses and in public spaces around school facilities.

Buncombe County Schools Photo

**Universities should play a leadership role** in the region by supporting collaborative efforts and providing policy advice and intellectual resources.

# Defining the Broadband Policy Environment

**Policy Environment:** Broadband is now considered a private commodity provided by for-profit firms. In limited cases, broadband is provided by non-profit organizations or member owned cooperatives. The North Carolina legislature has enacted severe limitations on the powers of local governments to finance broadband service for low-income or isolated areas. North Carolina state law is one of the most restrictive in the country in limiting what cities and counties can do to respond to broadband issues.

The **lack of good public data and local expertise impedes the expansion of broadband**. Because broadband is viewed as a private service, internet service providers do not need to keep local government informed of where unused fiber exists, who supplies the service in geographic areas, and how adequate service levels are. Nationally, the Federal Communication Commission (FCC) relies on self-reporting by providers and maps service delivery by census block. According to Congressional investigations, the FCC data is inadequate and misleading. Congress has mandated that the FCC correct their datasets and maps, but this will take years once Congress funds the remapping of services.

The issue of **broadband access is largely one of money**. There is a need for capital investment to finance public-private partnerships to bring broadband to underserved areas. In recent years, the NC legislature has provided some funds for rural counties through the GREAT (Growing Rural Economies with Access to Technology) program. The state funding has not been available to many unserved and/or underserved areas in counties with a mix of urban and rural population and has been well under 10% of the total funding needed. The federal government has supplied funds through a variety of programs, most of which have been directed to agricultural areas. The Appalachian Regional Commission has also supplied grants to many counties in the western North Carolina. All sources of funding to-date have only addressed a small fraction of the total need.

**Current funding is only addressing fixed broadband access**. The deployment of advanced mobile services (5G and Advanced 4G) in urban areas is likely to create a new digital divide for Internet mobility. Improving the new digital divide will also require financing support.

# 10 Lessons Learned About Broadband

On Jan. 27, UNCA and the West Next Generation Network initiative hosted a leadership summit at UNCA. More than 110 leaders join the conversation. We presented the publication highlighted here (wncbroadband.org/docs/BroadbandLeadershipSummit2020.pdf) that included the 10 ten lessons learned about broadband and a set of recommendations. The lessons and recommendations are still appropriate.

## TEN LESSONS LEARNED

1. As a result of the '96 Telecom Act, broadband infrastructure is treated as a competitive private commodity, not a public utility. Therefore, the infrastructure is only being built where the business case is positive. This benefits urban areas, particularly high-income, densely populated areas, at the expense of non-urban areas and disadvantaged citizens.

2. Therefore, WNC has a growing digital divide, both among our own citizens and compared to major urban areas in the U.S. Broadband modernization, including cellular technology (i. e. 5G) in urban areas, is accelerating, leaving many areas in further behind.

3. 5G cellular technology requires 10 to 100 times more cell towers that must be supported by a deep fiber infrastructure that WNC does not have. So WNC will also be on the wrong side of the digital cellular divide.

4. As the need for faster speeds increase, traditional telecom providers will find it difficult to keep up, creating more customer dissatisfaction and placing greater emphasis on fiber connectivity.

## TEN LESSONS LEARNED (Continued)

5. The North Carolina legislature limits the ability of local governments to finance broadband infrastructure, thereby creating a disadvantage for WNC where private markets are less attractive to providers.

6. Due to state limitations and broadband being considered a private commodity, local governments have not developed staff expertise or collected data, and have been slow to enact policies to advance broadband.

7. For area leaders, understanding and acting on broadband issues requires less a "technology" expertise than knowledge of governmental policy, financing, market strategies, planning and innovation.

8. Given the expense of modernizing and traditional telecom provider strategies in local non-urban markets, for truly high-speed Internet many citizens may soon have only one wireline provider—the cable provider—or none, resulting in less choice for customers.

9. A region-wide solution for broadband is giving way to local and neighborhood strategies encouraging customers to form cooperatives or local partnerships.

10. The fundamental need in WNC is capital to build out the fiber infrastructure. The capital needs to come from innovative partnerships with citizens, as well as government and foundation money to underwrite infrastructure development for under-privileged communities.

# Conclusion & Committee

**Conclusion:** Access to affordable high-speed internet is as important today as electricity, telephone service, mail service and highways were to our ancestors. In the past public officials implemented policies and provided funds to insure these services were available to all citizens.

**We are hopeful, the current generation of leaders will rise to the challenge.**

**WNC Broadband Project Advisory Committee**: Thanks to the following leaders who have volunteered their time and intellectual to assisting in this project. The recommendations do not reflect the opinions of this individuals acting in a personal advisory capacity.

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