

Closing the Digital Divide

Recommendation

Invests \$1.2 billion in broadband access and affordability to close the digital divide in North Carolina. To reach this goal, these funds will provide access to affordable, high-speed internet in every corner of the state and will ensure high-speed internet is equitably adopted and residents are able to access education, healthcare, and business opportunities.

Table 1: Allocation of Funds to Closing the Digital Divide

Infrastructure	\$ 600,000,000
GREAT 2.0 Grants	\$ 350,000,000
Competitive Bidding	\$ 150,000,000
Stop Gap Solutions	\$ 100,000,000
Affordability	\$ 420,000,000
Digital Literacy and Enablement	\$ 165,000,000
Device Support	\$ 40,000,000
Break-fix Services	\$ 30,000,000
Awareness and Digital Literacy	\$ 95,000,000
Administration	\$ 15,000,000
Grand Total	\$ 1,200,000,000

Statement of Need

While North Carolina’s economy recovers from the COVID-19 pandemic, the gap between residents enjoying economic growth and those struggling to secure jobs, find housing, and pursue educational resources is widening. This gap is especially wide for American Indian, Black, Latinx, and rural-based communities. The pandemic underscored the critical need for high-speed internet connectivity to close this gap.

- At least 1.1 million of North Carolina’s nearly 4 million households are on the wrong side of the digital divide. Nearly 30% of these households lack access to a high-speed internet connection.¹
- Roughly half of the 1.1 million households are priced out of internet access, required to spend at least 2% of monthly income on a \$60 per month subscription.²
- Many individuals also lack the digital skills to take advantage of telehealth opportunities, pursue an education using virtual tools, or use online job boards to find work.³

Recommendation Detail

Infrastructure

- Ensure availability of internet service at speeds of at least 100:100 Mbps for more than 98% of North Carolina households by investing \$600 million in last user infrastructure deployment through three programs.

¹ US Census Bureau, 2019 American Community Survey (ASC) Microdata, for respondents who do not have an internet subscription or that only have cellular data or only have dial-up, satellite, or other.

² U.S. Census Bureau American Communities Survey (ACS) (2019).

³ National Telecommunications and Information Administration, Digital Nation Report (2020).

- **GREAT 2.0 Grants:** Upgrades and expands the state’s existing last-mile grant program, investing \$350 million in future-proof technologies and connectivity speeds of at least 100:100 Mbps. GREAT 2.0 provides competitive grants for high-speed fiber connections wherever feasible. This program will rely on comprehensive mapping and cost-modeling to use state resources more efficiently. It also provides incentives to providers to address affordability barriers facing more than 1 million households.
- **Competitive Bidding:** Provides \$150 million to fund a competitive bidding process for underserved geographies with comparatively high density and ease of build-out due to existing infrastructure. Competitive bidding allows county governments to leverage federal funds to deploy infrastructure in support of public-private partnerships and to sub-lease or sell to internet service providers.
- **Stop Gap Solutions:** Provides \$100 million in targeted grants to address local infrastructure needs and connect underserved households not likely to get fiber for three to four years. This stop-gap solution includes funding to address tower deployments, support upgrades to state property in support of private fixed wireless deployment, pole replacements in support of major broadband projects, and devices for underserved households.
- The following requirements align to current guidance provided by the US Treasury Department’s Interim Final Rule and may be adjusted based on further instruction from the department.
 - In the case that 100:100 is infeasible due to geography, topography, or excessive costs, funded projects will be expected to be designed to deliver, upon completion, service that reliably meets or exceeds 100 Mbps download and between at least 20 Mbps and 100 Mbps upload speeds and be scalable to a minimum of 100 Mbps symmetrical.
 - Projects serving "unserved" households, defined in ARP guidance as those that are not currently receiving least 25 Mbps download speed and 3 Mbps of upload speed will be prioritized for funding.
- The state will use \$277 million of the Coronavirus Capital Projects Fund towards this effort. In addition, this program is expected to leverage an estimated \$920 million in private and federal cost share, including an estimated \$760 million in potential private sector partner contributions based on the existing GREAT Grant program⁴ and FCC RDOF awards based on awarded FCC Auction 904: Rural Digital Opportunity Fund results.⁵

Affordability

- Invests \$420 million to lower cost barriers to internet access for North Carolinians, building off federal and private affordability supports. This investment is expected to leverage over \$500 million in private and federal cost share, including potential private sector contributions of roughly \$240 million from ISP low-income plans as well as federal contributions of about \$260 million through federal broadband programs, such as Lifeline and COVID-19 relief funding.

Digital Literacy and Enablement

- Contributes \$165 million to improve awareness and training that enable North Carolinians realize the benefits of high-speed internet through digital literacy and new skills aimed at accessing the digital economy (e.g., education, job seeking, telehealth). These funds are expected to leverage \$60 million in private and federal funds and will be provided through:

⁴ (40/60 ISP-state cost match, 59% of HH).

⁵ (70/30 ISP-fed, 41% of HHs).

- **Device support:** Provides \$40 million in grant funding for a computer for 96,000 households that lack devices.
- **Break-fix services:** Provides \$30 million in grant funding to provide break-fix services, or as-needed services, and replacement for 275,000 devices for low-income North Carolinians.
- **Awareness and digital literacy:** Provides \$95 million in grant funding for awareness campaign with targeted community-based efforts and digital literacy offerings.

Administration

- Supplements existing state administrative capacity with \$15 million over four years to support high-speed internet efforts.

Expected Impact

- North Carolina will become a top-five state for high-speed internet adoption with rates above 80%, achieve 100% adoption for households with children, and fully close equity gaps by 2025 by meeting these three goals:
 - Raise the percentage of North Carolina households with high-speed internet subscriptions from 73% to 80%.
 - Increase adoption rates to 80% across racial subgroups.
 - Raise the percentage of North Carolina households with children with high-speed internet subscriptions from 81% to 100%.
- The affordability program will provide 380,000 individuals a \$50/month subsidy for four years, leveraging \$45 million in COVID-19 stimulus funds and other grant programs.

Water and Wastewater Infrastructure Investments

Recommendation

Provides \$800 million to the Department of Environmental Quality (DEQ) to support clean drinking water and reduce water pollution by fixing North Carolina’s water and wastewater systems. Of these funds, \$440 million is reserved for water, sewer, and stormwater projects for distressed and at-risk water and wastewater units and \$360 million is available for all units statewide. No match is required for distressed units and regionalization projects. The match for at-risk units is 75/25 and the match for all other units is 50/50.

Table 1: Water and Wastewater Infrastructure Investments

Projects for Distressed and At-Risk Units	\$ 440,000,000
Projects for All Units	\$ 360,000,000
Grand Total	\$ 800,000,000

Statement of Need

North Carolina has a goal of establishing viable water utilities throughout the state¹. At present, many of North Carolina’s systems need significant improvements to remain viable and provide clean drinking water and wastewater treatment.

- Over the next 20 years, DEQ estimates capital costs for water system needs range from \$10 billion to \$15 billion, while costs for wastewater system needs range from \$7 billion to \$11 billion. North Carolina has nearly 550 water systems owned by units of local government operating in the state; of these, more than 200 are small, with 2,000 or fewer water connections.
- There are nearly 300 publicly owned sewer systems and treatment plants that collect, treat, and discharge more than 1.4 billion gallons of wastewater per day.
- North Carolina has 118 distressed water and wastewater units, as jointly designated by the Local Government Commission (LGC) and the State Water Infrastructure Authority (SWIA). Additional units meet the criteria for distressed units but have not yet been designated.
- There are approximately 120 units just above the threshold for distressed status; these are known as at-risk units.

Recommendation Detail

- Provides \$440 million to DEQ for water, sewer, and stormwater projects for distressed and at-risk units with matches available for local governments. DEQ may use up to 1.5% of funds for administration. These funds will be used as follows:
 - \$85 million for distressed and at-risk units for action planning, asset assessments, rate studies, and training. Existing funds may be repurposed for eligible projects. Grants are capped at \$400,000 per unit for a period of three years.
 - \$180 million for distressed units to complete water and wastewater infrastructure improvements. Eligible grant activities include infrastructure rehabilitation, regionalization or decentralization, and emergency grants for operating deficits. Existing

¹ [North Carolina’s Statewide Water and Wastewater Infrastructure Master Plan](#)

funds may be repurposed for eligible projects. These projects require no match from the unit or local government.

- \$175 million for at-risk units to complete water and wastewater infrastructure improvements. Eligible grant activities include infrastructure rehabilitation, regionalization or decentralization, and emergency grants for operating deficits. Existing funds may be repurposed for eligible projects. These projects require a 75/25 match from the unit or local government.
- Grant requirements mirror those of the Viable Utility Reserve process, with distressed systems committing to proceeding through the full process provided in G.S. 159G-45(b).
- Provides \$360 million to DEQ for water, sewer, and stormwater projects for all water and wastewater units that apply for funding. DEQ may use up to 1.5% of funds for administration.
 - Eligible grant activities include planning, design, and construction of critical water and wastewater infrastructure. Existing funds may be repurposed for eligible projects.
 - Grants are capped \$15 million per system for individual projects. The cap is \$20 million per system for regional partnerships. Funding cap can be exceeded if funds are available.
 - These projects require a 50/50 match from the unit or local government.
- To encourage long-term solutions, systems that engage in regional collaboration with at least one distressed or at-risk unit to create long-term viable solutions for the system would be eligible for a 100% “super match.” The LGC and SWIA will develop program criteria and guidelines defining eligibility for this super match.
- DEQ may reallocate funds among eligible uses based on program demand.

Expected Impacts

Improved water and wastewater infrastructure, leading to cleaner drinking water and protection from pollutants for rivers, lakes, and streams and protecting public health across the state, by:

- Completing approximately 165 action plans, asset assessments, rate studies, and trainings for distressed and at-risk units to determine these units’ paths towards viability.
- Providing funding for 35-70 projects for distressed units, depending on size and complexity.
- Providing funding for 30-60 projects for at-risk units, depending on size and complexity.
- Providing funding for about 30 water, sewer, and stormwater projects for all other units.
- Increasing regional collaboration where community needs are met through flexible incentive funding.

Lead and Asbestos Remediation in Schools

Recommendation

Provides \$160 million for lead and asbestos testing and abatement in North Carolina public schools and child care facilities. Of this \$160 million, \$35 million will be provided for the testing and remediation of lead in the drinking water at public schools and child care facilities and \$125 million will be provided to public schools and child care facilities to assist with the cost of lead paint and asbestos abatement.

Statement of Need

Lead and asbestos pose health risks, especially for children.

- Lead is toxic to the brain and nervous system and exposure has a proven negative impact on cognitive development and behavior, with health damage occurring at even low levels of exposure.
- Young children (<6 years of age) more readily absorb lead and are in a critical life stage for brain development. There is no safe level of lead exposure for a child.
- Potential sources of lead exposure include old paint, drinking and cooking water, and imported toys and other manufactured products.
- Testing for lead in drinking and cooking taps at all licensed North Carolina child care centers is now required. NC Department of Health and Human Services (DHHS) began a program to test lead in water at child care centers in 2020.
- Most schools do not routinely test for lead in water. EPA funding is largely unavailable for school testing.
- Asbestos can be found in a wide variety building materials, including floor tiles, linoleum, pipe insulation, ceiling tiles, and wall plaster. The building materials used in older school facilities are more likely to include asbestos. Approximately 770 NC public schools have identified friable and damaged asbestos.
- Airborne asbestos fibers pose an increased risk for lung cancer, mesothelioma, and asbestosis.
- The Federal Asbestos Hazard Emergency Response Act (AHERA) of 1986 requires public and nonprofit private schools to protect school children and school employees from asbestos exposure by inspecting their schools for asbestos-containing building material and preparing management plans to take action to prevent or reduce asbestos hazards.
- Schools must perform surveillance of asbestos containing materials every six months with a three-year inspection by an accredited Asbestos Inspector or Management Planner.

Recommendation Detail

Test and Remediate Lead in Public School and Child Care Facility Drinking Water

- Provides \$35 million for lead testing and remediation of drinking water at public school and child care facilities. This program will follow the same model to test schools the state uses for child care centers, with testing contracted out and oversight from a temporary epidemiologist position. In addition, funds will be used to:
 - Develop a database for public school testing results similar to the database for child care facilities, providing a central repository of statewide information that will allow for easier tracking of testing results and remediation actions taken.

- Replace service lines or fixtures as needed, or install filters at affected faucets for those schools and facilities where faucets test positive for lead.

Lead Paint and Asbestos Remediation

- Provides \$125 million for lead and asbestos abatement at public school and child care facilities and to develop a statewide database of school-level AHERA inspection reports. The program will provide funding to public schools or child care facilities for lead paint and asbestos abatement if:
 - A school's Asbestos Inspector or Management Planner determines actions must be taken in response to an inspection report.
 - Asbestos and/or lead paint is found as part of a capital, renovation or repair (R&R) project and remediation is required. Projects could include: HVAC, window, or other ventilation projects related to COVID-19 mitigation, or other capital and R&R projects between 2021 and 2024.

Expected Impact

Investments in lead and asbestos testing, tracking, and abatement will result in:

- A publicly available database containing public schools lead in water testing results and mitigation status.
- A reduction of lead exposure and lead poisoning for children from birth to 12th grade, improving intellectual, health, and behavioral outcomes.
- A reduction of asbestos exposure for children from birth to 12th grade and child care and public school teachers and staff, decreasing risk for lung cancer, mesothelioma, and asbestosis.

Rural Downtown Transformation Grants

Recommendation

Provides \$175 million to the Department of Commerce (DOC) Rural Economic Development Division (REDD) to enable local governments in rural and distressed communities to fully leverage resources toward enhancing their communities' prospects for economic growth. Of the funds, \$60 million will support neighborhood revitalization grants; \$15 million will be available for grants for local governments to acquire land and buildings and develop those assets into viable business sites; and \$100 million will support projects associated with community-specific, comprehensive plans that deliver transformative economic change.

Table 1: Allocation of Funds to Rural Downtown Transformation Grants

Neighborhood Revitalization Grants	\$ 60,000,000
Enhancements for Community Development	\$ 15,000,000
Competitive Local Transformation Grants	\$ 100,000,000
Grand Total	\$ 175,000,000

Statement of Need

Rural local governments face significant systemic and economic challenges that limit their competitiveness and stifle their efforts to build strong, vibrant, and sustainable downtowns. These challenges were amplified by the COVID-19 pandemic, as rural communities are overrepresented by lower-wage and aging populations more sensitive to economic downturns.

- A vibrant downtown boosts the economic health and quality of life in a community. Specifically, it incubates small businesses, reduces sprawl, protects property values, and increases the community's options for goods and services.¹
- Most people in North Carolina live close to an urban center, where the state's economic output is concentrated. In 2020, the average median family income in rural counties was \$58,599 versus \$80,783 in urban counties.²
- Without opportunities offered by robust downtowns, outmigration from rural parts of the state will remain a challenge. Of the 32 counties in North Carolina that experienced a projected population loss between 2010 and 2020, none were among the top 20 most populous counties, and only five ranked in the top half of counties.³
- Population losses in rural areas and an aging population⁴ have left these communities with decreasing tax bases leading to deferred public facility maintenance.
- Successful growth and development strategies, including a broad range of projects that support public facilities, downtown development, neighborhood revitalization, industrial development, and efficient government have made measurable impacts on North Carolinian communities. Since 2009, the Main Street Solutions Fund provided \$4.6 million in investment to leverage

¹ Smart Growth America, "[Building Better Budgets.](#)"

² US Department of Housing & Urban Development, 2020.

³ NC Office of State Budget and Management, "[Projected Population Change in North Carolina Counties: 2010-2020.](#)"

⁴ NC Office of State Budget & Management, Vintage 2020 Population Projections.

\$32.1 million in additional local funds, which assisted 64 businesses that have created or retained 759 full- and part-time jobs.⁵

Recommendation Detail

- Provides \$60 million to REDD to administer neighborhood revitalization programs. Funding will support public improvement projects that complement affordable housing investments and help pandemic-impacted neighborhoods retain downtown businesses.
 - Eligible projects include sidewalks and walkways, parks, playgrounds, signage, lighting, public art, benches, planter boxes, public restrooms, public venues, public parking, and infrastructure.
 - Funds may also be used for delivering training and technical assistance for local governments to effectively leverage state and federal assistance.
- Provides \$15 million in grants to local governments in communities negatively impacted by the COVID-19 pandemic to support the acquisition of land and buildings, the preparation and development of neighborhood properties and business sites, and the removal of structural and physical barriers to enhance community growth and economic development opportunities.
 - Eligible grant applications must show a reasonable expectation that funding will yield private sector investment and job creation, community development projects, or neighborhood revitalization.
 - Funds may be used by DOC in partnership with the Department of Environmental Quality to assess environmental hazards on potentially contaminated sites and to conduct necessary activities to allow the property to be permitted for development.
- Funds \$100 million in grants to local governments in communities negatively impacted by the COVID-19 pandemic to support the development, execution, and implementation of comprehensive community growth plans and related transformational projects.
 - Growth plans and all approved associated projects will be funded under one consolidated grant award, not exceeding \$10 million.
 - Each project must outline a comprehensive growth plan that articulates the project's vision and implementation strategy.
 - Projects eligible for funding will include, but are not limited to, those that complement affordable housing units, support public facilities, rehabilitate or refurbish local government-owned buildings, and enhance arts, music, and other cultural attractions in downtown areas.
- Eligible grant recipients include rural local governments in communities negatively impacted by the pandemic at a disproportionate level when compared to the rest of the state.
- The department may use up to 3% of the funds to administer these programs.

Expected Impact

This proposal will help transform the state's most distressed communities by:

- Supporting more than 100 downtown districts to better attract and retain businesses.
- Engaging more than 400 local units with training and technical assistance to build local capacity.

⁵ NC Department of Commerce and NC Main Street & Rural Planning Center, "[The Economic Impact of Main Street in North Carolina: 2018 Annual Report: January-December 2018 Activity.](#)"

- Increasing available properties in 10-15 rural or distressed communities for employers to acquire to create new jobs and capital investment there and in neighboring towns.
- Improving the quality of life for individuals whose livelihoods are complicated by abandoned buildings and the barriers to progress they leave behind.
- Bolstering the local economies of at least 10 rural communities with competitive local transformation grants.