

Initial Proposal

North Carolina

Volume II

DRAFT FOR PUBLIC COMMENT

This Draft Initial Proposal will go through a number of revisions in the coming months. Prior to submitting the Initial Proposal to the National Telecommunications and Information Administration (NTIA) in December, the N.C. Department of Information Technology (NCDIT) will, in its discretion, revise the draft pursuant to feedback received during the public comment period. The Initial Proposal will then undergo a "curing" process with NTIA, where NTIA may require NCDIT to make changes. Federal guidelines relevant to this Initial Proposal are still under development, which may result in additional modifications, and any changes to North Carolina law, such as changes necessary to align the state's programs with BEAD requirements, will need to be reflected as well.

Volume II Initial Proposal Requirements

Objectives (Requirement 1)

Outline the long-term objectives for deploying broadband; closing the digital divide; addressing access, affordability, equity, and adoption issues; and enhancing economic growth and job creation. Eligible Entities may directly copy objectives included in their Five-Year Action Plans.

Governor Cooper's plan, as detailed in North Carolina's Broadband Equity, Access, and Deployment (BEAD) [Five-Year Plan](#), seeks to achieve reliable, affordable universal access to broadband and to significantly increase adoption rates by dedicating nearly \$1 billion in federal American Rescue Plan Act (ARPA) funds and more than \$1.5 billion in Infrastructure Investment and Jobs Act BEAD program to achieve the following goals:

- Investing \$971 million to build critical infrastructure to deliver internet speeds of 100/20 Mbps to 98% of unserved households with the ability to handle future speeds of 100/100 Mbps.
- Investing BEAD funding to build infrastructure to deliver internet speeds of 100/20 Mbps to the remaining unserved households and 100% of all underserved households, locations in high-cost areas, and community anchor institutions, with remaining funds dedicated to affordability programs.
- Investing \$50 million to create awareness and support digital literacy and skills training to enable the state's workforce to participate in the digital economy.
- Promoting enrollment in the Affordable Connectivity Program to increase participants to 1 million North Carolina households by the end of 2023 - currently 862,597 households (Nov. 6, 2023).
- Deploying \$1.415 million of Digital Equity Act funding plus other funds that may be available from ARPA, BEAD, and other programs to increase high-speed internet adoption by raising percentages of subscriptions as shown below:
 - Raising the percentage of North Carolina households with high-speed internet subscriptions from 73% to 80%.
 - Raising the percentage of North Carolina households with children with high-speed internet subscriptions from 81% to 100%.
 - Increasing adoption rates to 80% across racial subgroups:
 - Native American (currently 57%)
 - Black: (currently 64%)
 - Latinx: (currently 68%)
 - White: (currently 76%)

Local, Tribal, and Regional Broadband Planning Processes (Requirement 2)

Identify and outline steps that the Eligible Entity will take to support local, Tribal, and regional broadband planning processes or ongoing efforts to deploy broadband or close the digital divide. In the description, include how the Eligible Entity will coordinate its own planning efforts with the broadband planning processes of local and Tribal Governments, and other local, Tribal, and regional entities. Eligible Entities may directly copy descriptions in their Five-Year Action Plans.

The division and its predecessors have a long history of stakeholder engagement. For almost 10 years, the state has employed technical assistance advisors to work with local communities on creating broadband planning task forces, identifying funding sources, crowdsourcing, and engaging internet service providers. Our mapping and data collection initiatives involved a survey and speed test. The Growing Rural Economies with Access to Technology (GREAT) grant, enacted in 2018, led to educational outreach initiatives in every region of the state. The division staffed the governor's broadband task force, which brought together state agencies and relevant stakeholder groups to develop recommendations to improve deployment and increase digital inclusion.

The division uses the BEAD and Digital Equity planning grants to help fund local coordination efforts to ensure that the state's comprehensive plans to address high-speed internet access and digital equity are inclusive of all N.C. communities and populations' needs. The detailed local coordination plan that includes objectives, strategy, timeline, and tools is included in the N.C. BEAD Five Year Plan, Appendix E.

The division completed its initial community outreach for BEAD and Digital Equity planning as part of the development of this plan and to build a foundation for continued engagement during implementation. The results and findings of this initial outreach were presented to NTIA, stakeholders, and the public at the Closing the Digital Divide: Internet for All in NC summit in Raleigh, N.C., on May 23, 2023. The overwhelming feedback from residents and local leaders is that this plan should address access, affordability, and digital literacy. The state's strategies for addressing those issues are included in this Initial Proposal and the forthcoming State Digital Equity Plan.

The division held a tribal consultation on May 18, 2023, with the Eastern Band of Cherokee Indians. Based on this engagement, the state gained a better idea of how the tribe plans to provide improved access on tribal lands. The division committed to work with the tribe to find opportunities to use BEAD funding for deployment where needed. Additional discussions followed to coordinate broadband and digital equity strategies.

The division participated in a virtual meeting with a representative of the Catawba Nation of South Carolina on March 15, 2023, because they own tribal lands used for business purposes in a portion of North Carolina. No related broadband or digital equity needs were identified at that time. After that meeting, the state sent a formal letter inviting the Catawba Nation of South Carolina to participate in a formal tribal consultation but did not receive a response.

In addition, the division presented information about the planning process to the N.C. Commission of Indian Affairs in March 2023 to solicit their input and seek ways to collaborate with the eight state-recognized tribes and four urban Indian organizations represented on the commission. State-recognized tribes include: Coharie, Eastern Band of Cherokee Indians,

Haliwa-Saponi, Lumbee, Meherrin, Occaneechi Band of the Saponi Nation, Sappony, and Waccamaw Siouan. Members of state-recognized tribes participated in the regional sessions convened across the state in April and May 2023 and shared valuable input about the needs and assets of their communities. Tribal organizations submitted public comments to inform the BEAD Five Year Action Plan draft posted in summer 2023 for public input as well. Finally, one of the listening sessions convened in June 2023 for individuals who identify as covered populations focused on American Indian mothers who reside in the eastern part of the state.

The division formed meaningful partnerships with key state agencies, nonprofits, and trade associations, in addition to internet service providers, to coordinate and augment the state's resources to close the digital divide. In April and May 2023, the division held interviews with six other state government agencies, including the N.C. Departments of Adult Corrections, Commerce (which includes workforce programs), Health and Human Services, Natural and Cultural Resources, Public Instruction, and Transportation to discuss how the BEAD and State Digital Equity plans should align with the strategic plans of those agencies.

Whether partners are electric membership cooperatives, computer refurbishment agencies, digital navigators, or libraries, each plays an equally important role in achieving universal service and digital equity. The division works with partner organizations and key stakeholders to best understand and therefore provide plans that provide access and digital equity for all communities. See the N.C. BEAD Five Year Plan, Appendix B for a list of digital equity grant recipients and other important partners who participated in regional listening sessions or other convenings. The State Digital Equity Plan will include a comprehensive list of all organizations in the state working to create a digitally equitable state.

The division will continue to engage and solicit feedback from a variety of broadband and digital equity stakeholders across the state that have a vested interest in expanding high-speed internet access and building digital equity within the communities they serve, represent, and live.

Local Coordination (Requirement 4)

Describe the coordination conducted, summarize the impact such coordination has on the content of the Initial Proposal, and detail ongoing coordination efforts. Set forth the plan for how the Eligible Entity will fulfil the coordination associated with its Final Proposal.

The local coordination described for Requirement 3 resulted in valuable input that informed the content of the Initial Proposal. Feedback from residents, local leaders, and various stakeholders indicates that the BEAD funding should be used to address access, affordability, and digital literacy. For that reason, other sections of this Initial Proposal describe the state's plans to achieve universal broadband services, improve affordability of service available to residents, and provide opportunities to increase digital literacy.

Extensive engagement efforts related to workforce development informed the labor standards and protections, workforce readiness, and underrepresented businesses sections as well. In Spring 2023, North Carolina created a statewide Broadband Workforce Advisory Committee to provide guidance to the division. Committee meetings, employer listening sessions, and

interviews with key stakeholders and training providers generated information related to the challenges, opportunities, and strategies that informed development of the plan.

Other state agencies also provide valuable input and collaboration to strengthen the Initial Proposal, such as including the N.C. Departments of Adult Corrections, Commerce, Community Colleges, Health and Human Services, Justice, Natural & Cultural Resources, Public Instruction, and Transportation. These collaborations produced programming, workforce strategies, digital equity initiatives, and permitting improvements that are critical to the Initial Proposal. They also ensured alignment with the strategic plans of these state agencies that are key to closing the digital divide in the state.

Ongoing coordination efforts will support development of the Final Proposal as well. The division will continue convening the digital equity core team and working groups, workforce advisory committee, and digital equity and inclusion collaborative. The division facilitates regular meetings with stakeholders like the N.C. Association of County Commissioners and N.C. Rural Center, which are critical to communicating about the needs of local governments, rural residents, and covered populations. Internet service providers and related manufacturers in the state also provide critical feedback to inform BEAD planning and implementation so outreach and communication with them will also remain a priority.

Finally, relationships established and nurtured with nonprofit organizations are fundamental to helping the division understand the needs of covered populations and communicate with representatives of those populations directly. To better understand the specific broadband and digital equity needs of covered populations, we partnered with organizations that have community trust to host 23 listening sessions and recruit participants. These partnerships allowed us to connect with individuals we could not have reached otherwise and better understand the needs of each covered population. It also helped us build trust with both individuals and grassroots organizations across the state. We intend to continue these partnerships and will provide periodic progress on our plan and implementation, soliciting feedback along the way.

Describe the formal tribal consultation process conducted with federally recognized Tribes, to the extent that the Eligible Entity encompasses federally recognized Tribes. If the Eligible Entity does not encompass federally recognized Tribes, note “Not applicable.”

The division held a tribal consultation on May 18, 2023, with the Eastern Band of Cherokee Indians. Based on this engagement the state gained a better idea of how the tribe plans to provide improved access on tribal lands. The division committed to work with the tribe to identify opportunities to use BEAD funding for deployment where needed. Additional discussions followed to coordinate broadband and digital equity strategies.

The division participated in a virtual meeting with a representative of the Catawba Nation of South Carolina on March 15, 2023, because they own tribal lands used for business purposes in a portion of North Carolina. No related broadband or digital equity needs were identified at that time. After that meeting, the state sent a formal letter inviting the Catawba Nation of South Carolina to participate in a formal tribal consultation but did not receive a response.

Deployment Subgrantee Selection (Requirement 8)

Deployment Projects Subgrantee Selection Process & Scoring Approach

Describe a detailed plan to award subgrants to last-mile broadband deployment projects through a fair, open, and competitive process.

North Carolina is in a unique position in the structure for roll-out of its BEAD deployment programs. In December 2021, the North Carolina General Assembly appropriated almost \$1 billion in American Rescue Plan Act (ARPA) funding for last-mile broadband deployment through four infrastructure programs including Growing Rural Economies with Access to Technology (GREAT), Completing Access to Broadband (CAB), and Stop-Gap Solutions. The division is still implementing these programs, with all State & Local Fiscal Recovery Funds (SLFRF) required to be obligated by December 2024.

In Session Law 2022-74, the N.C. General Assembly authorized use of Infrastructure Investment and Jobs Act funding intended for last-mile broadband deployment projects as follows:

- **50%** in accordance with Section 38.4 of Session Law 2021-180 (GREAT Grant program under ARPA);
- **40%** in accordance with Section 38.6 of Session Law 2021-180 (CAB program under ARPA); and
- **10%** in accordance with Section 38.5 of Session Law 2021-180 (Stop-Gap Solutions program under ARPA).

All three programs are competitive last-mile broadband deployment programs. The existing programs align at a high level with the goals of the BEAD program to ensure broadband access to all unserved and underserved locations across North Carolina. Implementing the BEAD program within existing statutory constraints, however, will require some legislative changes.

The three programs are generally structured as follows:

- **GREAT Grant Program:** GREAT is a grant program to provide funding to private sector broadband providers to make broadband service available to *unserved* locations. Providers develop and propose projects for review and scoring. Grants are awarded within county-geographic boundaries based on a scoring matrix that involves the number of households and businesses to be served, cost per location, and speeds to be provided. Matching funds are required at specific percentages based on state law. Counties may be partners in the projects through financial match contributions or through provision of infrastructure.
- **CAB Program:** CAB is a procurement program to award funding to broadband providers to make broadband service available to *unserved* and *underserved* locations. The division works with counties to design and issue potential project scopes to prequalified broadband providers. Projects are awarded based on a competitive bidding process within county-geographic boundaries based on evaluation criteria developed by the division. Participating counties provide matching funds and have representation on the evaluation committee. Matching funds are required at specific percentages based on state law.

- **Stop-Gap Solutions:** Stop-Gap Solutions is a grant program for the provision and installation of broadband infrastructure to *unserved* and *underserved* locations. This program intends to fill in gaps not reached through the GREAT and CAB programs. Eligible applicants include broadband providers, county and municipal governments, and nonprofit organizations.

Pre-Qualification Process for Programs

For the CAB and Stop-Gap Solutions programs with ARPA funding, the division released a Request for Proposals in June 2023 to pre-qualify vendors for participation in these programs. See RFP here: <https://www.ncbroadband.gov/news/press-releases/2023/06/21/nc-broadband-division-prequalify-internet-providers-several-state-broadband-expansion-programs>. The outcome of this Broadband Expansion and Access Request for Proposals is the creation of a convenience contract that allows broadband service providers that have the financial, operational, and technical capacity to deploy broadband infrastructure for the provision of internet service in unserved and underserved areas of the state. This RFP does not result in a direct project award but acts as a review of qualifications of broadband providers. Although BEAD programs are grant programs, not procurements, the division plans to utilize this pre-qualification concept for the three last-mile broadband deployment programs under BEAD.

Multiple Funding Rounds

These three programs provide a multi-layered approach to solving the broadband challenge in North Carolina through multiple funding rounds, allowing time and opportunity to ensure service availability to all unserved and underserved locations in the state. The primary programs – GREAT and CAB, will address “Priority Broadband Projects” as defined in the BEAD NOFO. Stop-Gap Solutions will provide a system to fill in small remaining pockets of unserved and underserved locations. Any “Other Last-Mile Broadband Deployment Projects” will fall under the Stop-Gap Solutions program.

The structure of these programs aligns at a foundational level with the goals of the BEAD program in making service available to every unserved and underserved location in the state. The division will seek legislative changes to state law for these programs to align more fully with specific BEAD requirements. A proposed timeline appears below. The division intends to launch the CAB program first with BEAD funding.

Proposed Timeline of North Carolina Deployment Programs

ARPA Programs

North Carolina will have all ARPA CAB funds obligated by December 2024. Part of the CAB funds come from the Capital Project Funds (CPF) program and do not have a specific obligation deadline but must be spent by the end of 2026. The Stop-Gap Solutions program relies entirely on CPF funds and may continue to be utilized into later years to fill pockets of unserved and underserved locations.

BEAD Programs

January to March 2024

- Curing of Initial Proposal with NTIA

- Outline specific legislative changes needed for the three programs to align with BEAD requirements

April to September 2024

- Division will present proposed legislative changes to the N.C. General Assembly intended to align the GREAT, CAB, and Stop-Gap Solutions programs with BEAD.
- Implement Request for Qualification process: This pre-qualification process for potential BEAD vendors is phase one of the Subgrantee Selection process and will identify broadband providers eligible to participate in the BEAD last-mile deployment programs.
- Updates made to Initial Proposal to incorporate state legislative changes.

October to December 2024

- Confirm ARPA-funded awarded and contingently awarded locations
- Implement BEAD Challenge Process

January 2025

- Launch first BEAD funded program and receive project-level applications

The Broadband Infrastructure Office (the office) within the division began developing and administering last-mile broadband deployment grants in 2018, including ARPA-funded broadband deployment programs since 2022. The office plans to build on this foundation to develop, launch, implement, and monitor all of the BEAD-funded deployment grants. The office has a long history of working directly with broadband providers across the state and has processes in place to ensure continued coordination and communication with these providers, local government partners, and stakeholders across the state.

The division utilizes the ncbroadband.gov website to share information with potential applicants as well as current grantees, including grants management pages for grantees and partners. The division will build on the current processes for launching grant application rounds, reviewing applications, making awards, and grant monitoring and compliance.

Describe how the prioritization and scoring process will be conducted and is consistent with the BEAD NOFO requirements on pages 42 – 46.

Primary Criteria

Minimal BEAD Program Outlay. The total BEAD funding that will be required to complete the project, accounting for both total projected cost and the prospective subgrantee's proposed match (which must, absent a waiver, cover no less than 25% of the project cost), with the specific points or credits awarded increasing as the BEAD outlay decreases. In comparing the project's BEAD outlay and the prospective subgrantee's match commitments, Eligible Entities should consider the cost to the Program per location while accounting for any factors in network design that might make a project more expensive, but also more scalable or resilient.

The division proposes a scoring process to ensure the most cost-effective use of federal funds. The scoring rubric will evaluate and assign a range and a score value for each of the following:

- the cost per location (unserved households and unserved businesses) to be served with priority given to the climate resiliency of the network. Another section of this Initial Proposal provides a climate assessment of the state and the common environmental hazards for particular regions. The division proposes to prioritize applicants that can provide a detailed plan describing how the proposed network will mitigate climate hazards and the impacts to customers in the county of the proposed project area. The division proposes an approved plan would include at minimum the following:
 - the identification of potential climate hazard(s) common in the proposed project area,
 - description how the applicant will protect the network and infrastructure,
 - description for how the applicant will address the impacts to customers during a disruption of service in the event of a climate hazard,
 - description of how implementing the plan affects the proposed total project costs, and
 - signed attestation that this plan is associated with the network design of the proposed project.

Points Description/Rationale: The number of points an applicant can qualify for in this criterion prioritizes the maximum number of unserved locations at the lowest reasonable total project cost based on the applicant’s network design. This criterion has two categories:

1. Lowest Cost Per Location that includes a Climate Resiliency Plan and a certification that the proposed total project cost includes implementation of the plan in the network design.

Lowest cost per location with submission of an approved plan describing the climate resiliency of the network and a sealed preliminary engineering report that certifies the proposed total project cost includes implementation of this plan	Up to 30
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2. Cost Per Location with no Climate Resiliency Plan.

Lowest cost per location without submission of an approved plan describing the climate resiliency of the network	Up to 20
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With respect to the provision in which specific points or credits can be awarded if the BEAD outlay decreases, if an applicant is willing and commits in writing to provide more than the minimum match percentage, the Office proposes to provide more points for more match commitment.

Points Description/Rationale: BEAD requires that all applicants provide a minimum of 25% match of the total project cost. The division prioritizes a larger match commitment from an applicant by offering points if they are willing to commit to a higher match percentage.

Minimum 25%	0
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30%	10
40%	15
50%	20

Affordability; The prospective subgrantee's commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area.

The division proposes to evaluate the symmetrical gigabit speed tier package offered by a subgrantee and will assign a value on a sliding scale based on a range of the non-promotional cost of service including all taxes, fees, and charges. Preference will be given to the gigabit speed tier package with lower costs. The proposed range in the scoring rubric was determined using average cost for 1Gbps/1Gbps service from internet service providers in North Carolina available from the FCC Urban Rate Survey.

Points Description/Rationale: The division used the FCC Urban Rate Survey as a baseline to determine an average of what an internet service provider would charge for gigabit per second symmetrical speeds. The average cost was between \$90 - \$95 per month. The division does not require speed packages at a certain price point; however, the division will award additional points for internet speed packages that offer gigabit per second symmetrical speeds for households for less than \$95 per month.

Less than \$90	15
\$90 to \$95	5
More than \$95	Zero Points

Fair Labor Practices. Eligible Entities must give priority to projects based on a prospective subgrantee's demonstrated record of and plans to be in compliance with Federal labor and employment laws. New entrants without a record of labor and employment law compliance must be permitted to mitigate this fact by making specific, forward-looking commitments to strong labor and employment standards and protections with respect to BEAD-funded projects. This prioritization requirement is described in further detail in Section IV.C.1.e of this NOFO.

The NOFO requires a subgrantee to disclose any violations of labor and employment laws in the last three years, or written confirmation of no such violation. Based on Section IV.C.1.e of the NOFO, the division proposes to evaluate and assign a score of a subgrantee's demonstrated record of compliance with state and federal labor and employment laws in North Carolina.

This section will not preclude a subgrantee from eligibility or participation in the BEAD funded programs. The division will use publicly available resources from the U.S. Department of Labor, National Labor Relations Board, Office of Safety and Health Administration, and U.S. Equal Employment Opportunity Commission to verify required disclosures.

Zero Violations within last three years	10
Resolved Violations within last three years	5
Active Violations Pending Resolution within last three years	3
Active Violations within last three years	Zero Points

Points Description/Rationale: The division prioritizes applicants that do not have a documented violation of labor and employment laws within the last three years in North Carolina.

Secondary Criteria

Speed to Deployment. All subgrantees that receive BEAD Program funds for network deployment must deploy the planned broadband network and begin providing services to each customer that desires broadband services within the project area not later than four years after the date on which the subgrantee receives the subgrant from the Eligible Entity. Eligible Entities must give secondary criterion prioritization weight to the prospective subgrantee's binding commitment to provide service by an earlier date certain, subject to contractual penalties to the Eligible Entity, with greater benefits awarded to applicants promising an earlier service provision date.

Points Description/Rationale: Established programs within the division require a subgrantee to construct and deploy broadband infrastructure within two years with a built-in extension of an additional year with a reason/rationale for the additional time. The division will require a schedule and timeline of activities during construction and prioritizes construction and deployment taking less than the minimum four-year requirement in BEAD.

Construction completed within two years	8
Construction completed within four years	0

Low-Cost Option. A low-cost broadband service option is required by BEAD.

Points Description/Rationale: The division proposes to prioritize and provide preference to applicants that meet all of the requirements established in the Low-Cost Option section of this plan to receive the total number of available points. If the standard is not met, the applicant will not qualify for any points.

Yes	7
No	0

Additional Prioritization Factors. Eligible Entities may develop additional secondary criteria to be given weights that align with Eligible Entity and local priorities, subject to the requirement to give the greatest weight to the primary criteria and the approval of the Assistant Secretary in the Initial and Final Proposal process. In particular, NTIA encourages Eligible Entities to incorporate the following as selection criteria:

Equitable Workforce Development and Job Quality. NTIA encourages Eligible Entities to adopt selection criteria relating to the subgrantee's enforceable commitments with respect to advancing equitable workforce development and job quality objectives, see Section IV.C.1.f of this NOFO.

Points Description/Rationale: The division proposes to assign points to applicants that provide a plan that is consistent with Section IV.C.1.f.

Yes	5
No	0

Local and Tribal Coordination. NTIA encourages Eligible Entities to adopt selection criteria reflecting a prospective subgrantee's support from the local and/or Tribal Government with oversight over the location or locations to be served.

Points Description/Rationale: The division proposes to assign bonus points to applicants that provide a letter of support from local units of government such as a county or municipality, or a federally recognized tribal government. Local units of government and federally recognized tribal governments may support one or multiple applications. Letters of support must come from the local or tribal governments that express direct support for the proposed project.

Yes	5
No	0

Describe how the proposed subgrantee selection process will prioritize Unserved Service Projects in a manner that ensures complete coverage of all unserved locations prior to prioritizing Underserved Service Projects followed by prioritization of eligible CAIs.

These three North Carolina programs (GREAT, CAB and Stop-Gap Solutions) provide a multi-layered approach to solving the broadband challenge in the state through multiple funding rounds, allowing time and opportunity to ensure service availability to all unserved and underserved locations in the state. The GREAT grant program in state law allows deployments to build service to unserved locations only. The CAB and Stop-Gap Solutions programs allow deployments to both unserved and underserved locations. The Stop-Gap Solutions program is designed to provide service to individual locations not reached through GREAT and CAB.

Unserved or underserved CAIs not served under the initial programs are also eligible for funding under the Stop-Gap Solutions program.

If proposing to use BEAD funds to prioritize non-deployment projects prior to, or in lieu of the deployment of services to eligible CAIs, provide a strong rationale for doing so. If not applicable to plans, note “Not applicable.”

Not applicable.

The proposed subgrantee selection process is expected to demonstrate to subgrantees how to comply with all applicable Environmental and Historic Preservation (EHP) and Build America, Buy America Act (BABA) requirements for their respective project or projects. Describe how the Eligible Entity will communicate EHP and BABA requirements to prospective subgrantees, and how EHP and BABA requirements will be incorporated into the subgrantee selection process.

The division will work with applicants during the Pre-Award phase, the Award phase and with grantees during the Post-Award phase of the broadband deployment grant programs to ensure that applicants and grantees are aware of applicable federal rules under the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA), including any exceptions.

While the division receives project applications under the GREAT, CAB and Stop-Gap Solutions programs during phase two of the Subgrantee Selection process, project descriptions will be reviewed for NEPA analysis. The division proposes to develop an environmental assessment template, using template guidelines from NTIA, to guide applicants to comply with NEPA and any state environmental regulations. The environmental assessment documents will include a location map indicating the footprint of the project under review. Location markers such as street/road names and any natural features in the vicinity, such as wetland areas and streams, will be identified. The N.C. Department of Administration has a defined process through the State Environmental Review Clearinghouse (<https://www.doa.nc.gov/about-doa/special-programs/state-environmental-review-clearinghouse>) whereby relevant state agencies (such as the N.C. State Historic Preservation Office - <https://www.dncr.nc.gov/old-state-historic-preservation-office>) will have the opportunity review and provide comments to the environmental assessment document. In addition, the division will ensure applicants include all relevant federal agencies and tribal governments to review and comment on the environmental assessment. Grant Agreements for awarded projects will address compliance requirements for NEPA.

The division will also work with applicants during the Pre-Award phase, the Award phase and with grantees during the Post-Award phase of the broadband deployment grant programs to ensure that applicants and grantees are aware of applicable federal rules under the Build America, Buy America Act (BABA) and any opportunities for waivers. During phase two of the Subgrantee Selection process as the division receives project applications under the GREAT, CAB and Stop-Gap Solutions programs, applicants will be asked to address their ability to comply with BABA. The division will also address compliance with BABA as a term and condition in the Grant Agreements.

Last-Mile Broadband Deployment Project Areas

Describe how the Eligible Entity will define project areas from which they will solicit proposals from prospective subgrantees. If prospective subgrantees will be given the option to define alternative proposed project areas, describe the mechanism for de-conflicting overlapping proposals to allow for like-to-like comparisons of competing proposals.

North Carolina has 100 counties with 78 of the counties considered rural, per the N.C. Rural Center. The program rules in state law for both the GREAT and CAB programs are built around the concept of project applications being submitted within county-boundaries. The GREAT program allows for county partnerships with the program, and the CAB program has a county-match requirement as well as incorporating county input on areas for scopes of work. Scoring criteria for GREAT also consider county data. Within the GREAT program, the highest-scoring application within a county is selected for an award. Additional applications remaining under consideration must de-duplicate overlapping locations with the awarded project. The county-level geography and de-duplication process requires time in the process of making additional awards but allows for a more customized approach to finding the right solutions for each county. Within a county boundary, projects will be submitted as locations within smaller resolutions such as hexbins or census blocks. Hexbins from the H3 hexagonal hierarchical geospatial indexing system (<https://h3geo.org/>) would provide a standard geometry to aggregate unserved and underserved locations to resolution 8 hexagons. But census blocks have the benefit of aligning with demographic data. The division is still evaluating the benefits of each.

If no proposals to serve a location or group of locations that are unserved, underserved, or a combination of both are received, describe how the Eligible Entity will engage with prospective subgrantees in subsequent funding rounds to find providers willing to expand their existing or proposed service areas or other actions that the Eligible Entity will take to ensure universal coverage.

These three North Carolina programs (GREAT, CAB and Stop-Gap Solutions) provide a multi-layered approach to solving the broadband challenge in North Carolina through multiple funding rounds, allowing time and opportunity to ensure service availability to all unserved and underserved locations in the state. The GREAT program in state law allows deployments to build service to unserved locations only. The CAB and Stop-Gap Solutions programs allow deployments to both unserved and underserved locations. The Stop-Gap Solutions program will launch last and provide service to individual locations not reached through GREAT and CAB. As the Stop-Gap Solutions program rolls out, the division will identify remaining unserved locations, analyze surrounding infrastructure, and work with companies with existing infrastructure in the area to incent deployments.

Describe how the Eligible Entity intends to submit proof of Tribal Governments' consent to deployment if planned projects include any locations on Tribal Lands.

The division will coordinate with federally recognized tribal governments to ensure it has accurate mapping of locations on Tribal Lands. These locations will be overlaid with application data to identify any applications that overlap Tribal Lands. The division will work with the federally recognized tribal government both in the application phase of these programs and the award phase to coordinate and ensure that any funded projects have consent to deploy from the tribal government.

Extremely High Cost Per Location Threshold

Identify or outline a detailed process for identifying an Extremely High Cost Per Location Threshold to be utilized during the subgrantee selection process. The explanation must include a description of any cost models used and the parameters of those cost models, including whether they consider only capital expenditures or include operational costs for the lifespan of the network.

Out of North Carolina's three broadband deployment programs, the Stop-Gap Solutions program will be deployed last, with the goal of filling in remaining pockets of individual locations that are unserved or underserved. The GREAT and CAB programs will address larger projects consisting solely of Priority Broadband Projects. Extremely High-Cost locations will be identified partly organically as those locations that are left out of GREAT and CAB application rounds. These remaining locations will then be identified and analyzed to look at cost to serve based on surrounding infrastructure. At that time, the division will determine for which locations it will accept "Other Last Mile Broadband Projects."

Outline a plan for how the Extremely High Cost Per Location Threshold will be utilized in the subgrantee selection process to maximize the use of the best available technology while ensuring that the program can meet the prioritization and scoring requirements set forth in Section IV.B.6.b of the BEAD NOFO. The response must describe:

- a. The process for declining a subgrantee proposal that exceeds the threshold where an alternative technology is less expensive.**
- b. The plan for engaging subgrantees to revise their proposals and ensure locations do not require a subsidy.**
- c. The process for selecting a proposal that involves a less costly technology and may not meet the definition of Reliable Broadband.**

Out of North Carolina's three broadband deployment programs, the Stop-Gap Solutions program will be deployed last, with the goal of filling in remaining pockets of individual locations that are unserved or underserved. The GREAT and CAB programs will address larger projects consisting solely of Priority Broadband Projects. Extremely High-Cost locations will be identified partly organically as those locations that are left out of GREAT and CAB application rounds. These remaining locations will then be identified and analyzed to look at cost to serve based on

surrounding infrastructure. At that time, the division will determine for which locations it will accept “Other Last Mile Broadband Projects.”

Deployment Subgrantee Qualifications

Describe how the Eligible Entity will ensure prospective subgrantees deploying network facilities meet the minimum qualifications for financial capability as outlined on pages 72 – 73 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to certify that they are qualified to meet the obligations associated with a Project, that prospective subgrantees will have available funds for all project costs that exceed the amount of the grant, and that prospective subgrantees will comply with all Program requirements, including service milestones. To the extent the Eligible Entity disburses funding to subgrantees only upon completion of the associated tasks, the Eligible Entity will require each prospective subgrantee to certify that it has and will continue to have sufficient financial resources to cover its eligible costs for the Project until such time as the Eligible Entity authorizes additional disbursements.**
- b. Detail how the Eligible Entity plans to establish a model letter of credit substantially similar to the model letter of credit established by the FCC in connection with the Rural Digital Opportunity Fund (RDOF).**
- c. Detail how the Eligible Entity will require prospective subgrantees to submit audited financial statements.**
- d. Detail how the Eligible Entity will require prospective subgrantees to submit business plans and related analyses that substantiate the sustainability of the proposed project.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

During phase one of the Subgrantee Selection process (pre-qualification), respondents will be asked to provide information demonstrating financial solvency. The types of documentation required during the process may include the following:

- Audited Financial Statements – three years
- Bank Statements – three years
- Bankruptcy Information
- Bank and Investment Reference(s)

- Current Grants
- Indebtedness
- Failure to Perform
- Organization charts identifying company structure such as parent company and any subsidiaries or affiliates that will perform work in North Carolina.

Financial solvency and sustainability will be assessed based on documentation described above. For the ARPA pre-qualification process, the office utilized a risk management partner, KPMG, to analyze the information and provide a financial solvency review of individual respondents looking at areas such as profitability, liquidity, and leverage. The division will use a similar approach for the BEAD pre-qualification.

Sustainability will be assessed under both the financial solvency component and the operational component of the pre-qualification process. Business plans demonstrating operational capacity will be captured under the operational component of the pre-qualification process.

Phase two of the Subgrantee Selection process will take place within the launch of each program when broadband providers submit applications for specific projects under the three programs. During phase two of the Subgrantee Selection process, applicants will be required to provide documentation of proof of matching funds for any contingent project awards. Final guidance on the establishment of a model letter of credit will be folded into this requirement. The division will also continue to evaluate the number of grant awards made to any one broadband provider for risk factors related to financial and operational capacity of the company.

Upon awarding a project to any broadband provider, a detailed Grant Agreement will be signed by both parties. For the GREAT grant ARPA projects, Grant Agreements include the following:

Document:	Document Description:
Agreement	Contract: Outlines the terms of the Agreement between NCDIT and the Grantee.
Exhibit A	NCDIT disclosures required by 2 C.F.R. 200.332 and 09 NCAC 03M.
Exhibit B	Scope of Services: Outlines the scope of the construction project, including the Project Budget.
Exhibit C	Project Milestones: Outlines the schedule and contents of reports that are due from the Grantee to NCDIT.
Exhibit D	Reporting Schedule for Progress Reports.
Exhibit E	Progress Report Template: Provides a template document for the Grantee to submit progress reports, including spending to date.
Exhibit F	Payment Process: Outlines the process for the Grantee to request reimbursements from NCDIT.
Exhibit G	Byrd Anti-Lobbying Certification.
Exhibit H	Key Personnel of the Grantee.

Exhibit I: Mapping Files	Data file (csv) and map that identifies approved locations for the grant project.
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While grant agreements for BEAD funding are not yet developed, the division will use a similar approach to contracting. Grant programs are reimbursement-based with progress reporting required on a quarterly basis as a minimum. Risk assessments of the grantees are utilized to inform frequency and type of monitoring required.

Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for managerial capability as outlined on pages 73 – 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. **Detail how the Eligible Entity will require prospective subgrantees to submit resumes for key management personnel.**
- b. **Detail how it will require prospective subgrantees to provide a narrative describing their readiness to manage their proposed project and ongoing services provided.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

For BEAD funding, an additional component on managerial capability will be added to this pre-qualification process. Resumes for key management personnel will be collected and assessed for readiness to manage the proposed projects and ongoing services.

Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for technical capability as outlined on page 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. **Detail how the Eligible Entity will require prospective subgrantees to certify that they are technically qualified to complete and operate the Project and that they are capable of carrying out the funded activities in a competent manner, including that they will use an appropriately skilled and credentialed workforce.**

- b. Detail how the Eligible Entity will require prospective subgrantees to submit a network design, diagram, project costs, build-out timeline and milestones for project implementation, and a capital investment schedule evidencing complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant, all certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the Project.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

During phase one of the Subgrantee Selection process (pre-qualification), respondents will be asked to provide information around their company's approach to the following:

- High Level Network Summary
- Network Design for Grant Projects
- Network Development
- Network Construction
- Network Turnup / Operationalization
- Reliability and Repair
- Network Management & Security.

Phase two of the Subgrantee Selection process will take place within the launch of individual programs when broadband providers submit applications for specific projects under the three programs. During phase two of the Subgrantee Selection process, applicants will be required to provide details on the particular project being proposed including information on network design, diagram, project costs, build-out timeline and milestones for project implementation, and a capital investment schedule evidencing complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant. The project applications will fold in requirements for proposed projects to be certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the Project.

Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for compliance with applicable laws as outlined on page 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to demonstrate that they are capable of carrying out funded activities in a**

competent manner in compliance with all applicable federal, state, territorial, and local laws.

- b. Detail how the Eligible Entity will require prospective subgrantees to permit workers to create worker-led health and safety committees that management will meet with upon reasonable request.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds. This pre-qualification document will also reference required compliance with all applicable federal, state, and local laws.

Phase two of the Subgrantee Selection process will take place within the launch of individual programs when broadband providers submit applications for specific projects under the three programs. These application guidelines will also reference required compliance with applicable federal, state, and local laws. Upon award of a project to any broadband provider, a detailed Grant Agreement will be signed by both parties and include reference to required compliance with applicable federal, state, and local laws.

In the pre-qualification phase, the division can also collect information from respondents on efforts around worker-led health and safety committees that interact with management; and will explore what requirements in this area are permissible under state law for possible inclusion in a Grant Agreement.

Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for operational capability as outlined on pages 74 – 75 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to certify that they possess the operational capability to qualify to complete and operate the Project.**
- b. Detail how the Eligible Entity will require prospective subgrantees to submit a certification that they have provided a voice, broadband, and/or electric transmission or distribution service for at least two (2) consecutive years prior to the date of their application submission or that they are a wholly owned subsidiary of such an entity and attest to and specify the number of years the prospective subgrantee or its parent company has been operating.**
- c. Detail how the Eligible Entity will require prospective subgrantees that have provided a voice and/or broadband service, to certify that it has timely**

filed Commission Form 477s and the Broadband DATA Act submission, if applicable, as required during this time period, and otherwise has complied with the Commission's rules and regulations.

- d. Detail how the Eligible Entity will require prospective subgrantees that have operated only an electric transmission or distribution service, to submit qualified operating or financial reports, that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution.**
- e. In reference to new entrants to the broadband market, detail how the Eligible Entity will require prospective subgrantees to provide evidence sufficient to demonstrate that the newly formed entity has obtained, through internal or external resources, sufficient operational capabilities.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

During phase one of the Subgrantee Selection process (pre-qualification), respondents will be asked to provide information to demonstrate operational knowledge, structure, and capacity by providing information on the following items:

- Contact information for Authorized Representatives
- Baseline Company Profile
- Billing and Operational Support Systems (B/OSS)
- Billing and Customer Data
- Federal Filing Status
- End User Support
- Human Resource Capacity.

Information capturing experience in operational capabilities will be added to this section including years of experience in voice, broadband or electrical transmission/distribution; or demonstrated operational capabilities for new entrants.

Describe how the Eligible Entity will ensure that any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on ownership as outlined on page 75 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. **Detail how the Eligible Entity will require prospective subgrantees to provide ownership information consistent with the requirements set forth in 47 C.F.R. § 1.2112(a)(1)-(7).**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical, plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

During phase one of the Subgrantee Selection process (pre-qualification), as part of the operational component, companies are asked to submit a corporate organizational chart identifying the parent company and any subsidiaries or affiliates that will be performing work in North Carolina. For the BEAD program, details will be added to this operational component to ensure this section aligns with all the information requirements in 47 C.F.R. § 1.2112(a)(1)-(7).

Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on other public funding as outlined on pages 75 – 76 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity response may reference those to outline alignment with requirements for this section. The response must:

- a. **Detail how it will require prospective subgrantees to disclose for itself and for its affiliates, any application the subgrantee or its affiliates have submitted or plan to submit, and every broadband deployment project that the subgrantee or its affiliates are undertaking or have committed to undertake at the time of the application using public funds.**
- b. **At a minimum, the Eligible Entity shall require the disclosure, for each broadband deployment project, of: (a) the speed and latency of the broadband service to be provided (as measured and/or reported under the applicable rules), (b) the geographic area to be covered, (c) the number of unserved and underserved locations committed to serve (or, if the commitment is to serve a percentage of locations within the specified geographic area, the relevant percentage), (d) the amount of public funding to be used, (e) the cost of service to the consumer, and (f) the matching commitment, if any, provided by the subgrantee or its affiliates.**

Under the ARPA funding, the division released a Request for Proposals to pre-qualify vendors for participation in some of the ARPA funded last-mile broadband programs. The division will use a similar approach to pre-qualify broadband providers for eligibility to participate in the three last-mile broadband programs with BEAD funding. In this pre-qualification process, respondents will provide required information for three components - financial, operational, and technical,

plus an added managerial component – to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple programs and funding rounds at one time, reducing the need to submit duplicative information in multiple funding rounds.

During phase one of the Subgrantee Selection process (pre-qualification), as part of the financial component, companies are asked to submit information on current broadband deployment grants. For the BEAD program, this section will be expanded to capture all relevant information on publicly funded projects as outlined in 2.4.17a. and 2.4.17b. The division also periodically collects mapping data from broadband providers operating in North Carolina on publicly funded broadband deployment projects.

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Non-Deployment Subgrantee Selection (Requirement 9)

Describe a fair, open, and competitive subgrantee selection process for eligible non-deployment activities. Responses must include the objective means, or process by which objective means will be developed, for selecting subgrantees for eligible non-deployment activities. If the Eligible Entity does not intend to subgrant for non-deployment activities, indicate such.

The division plans to channel non-deployment funds through our existing Digital Equity Grant program. The Digital Equity Grant program has two different tracts: 1) Interagency Grants (for other N.C. state government agency entities as defined [HERE](#)), and 2) Digital Champion Grants (for all other non-state agency entities including local governments, nonprofits, higher education institutions, and regional entities). Grant length and funding amounts will be determined once available non-deployment funding is finalized.

To identify and select subgrantees, the division will solicit applications from both state and non-state agencies. Applications must include one or more of the BEAD non-deployment activities (user training on digital safety, remote learning, telehealth, digital literacy, multilingual outreach, among other activities), and prioritize the covered populations as outlined in the Digital Equity Act. A rubric will be created to evaluate the applicant's proposal, eligible activities, and how the needs of covered populations are addressed.

Describe the Eligible Entity's plan for the following:

- a. How the Eligible Entity will employ preferences in selecting the type of non-deployment initiatives it intends to support using BEAD Program funds.**
- b. How the non-deployment initiatives will address the needs of residents within the jurisdiction.**
- c. The ways in which engagement with localities and stakeholders will inform the selection of eligible non-deployment activities.**
- d. How the Eligible Entity will determine whether other uses of the funds might be more effective in achieving the BEAD Program's equity, access, and deployment goals.**

The engagement activities undertaken by the division as part of the digital equity planning process have provided a strong baseline of barriers to digital equity for general and covered populations. The division will ensure that all eligible non-deployment activities are meeting the barriers and needs identified through this process and as outlined in the North Carolina Digital Equity Plan which will be open to public comment in December 2023.

The North Carolina Digital Equity plan will outline measurable objectives for each covered population. These objectives will be used as a point of reference when assessing how subgrantee applicants can meet the needs of residents within various localities. We expect to prioritize projects that address the following needs:

1. Internet affordability
2. Device ownership
3. Digital skills training including privacy and cyber-security
4. Online accessibility and inclusivity of online content

The division has conducted significant stakeholder engagement to understand the needs of covered populations by conducting 23 deep listening sessions in partnership with organizations serving covered populations, as well as nine public regional sessions, one in each economic prosperity zone and one virtual session. The division also analyzed county and regional digital inclusion plans covering 48 counties, received over 6,500 responses to the N.C. Digital Equity Survey, and identified 951 organizations providing 1,316 resources and assets to meet digital needs in the state. The division will ensure that all eligible non-deployment activities are meeting the barriers and needs identified through this stakeholder engagement process.

The division will apply non-deployment funds to the activities identified in the BEAD Notice of Funding Opportunity (NOFO) as applicable. If remaining funds exist, the division will assess service gaps and develop a plan to execute programming that best supports statewide internet adoption, affordability, and digital skills training efforts.

Utilizing ARPA funding, the division launched a two-phased digital equity grant program for state and local organizations. The division tracks Key Performance Indicators (KPIs), engages with stakeholders, and follows a clear project execution timeline. The goal is to empower grantees to expand or develop digital equity programs in communities. We have established KPIs, focusing on affordability, access, and digital skills training, and use these metrics to evaluate program success and impact. The division requires grantees to report on their KPIs and programmatic efforts quarterly, including their progress in serving specific populations. We prioritize equity and have gathered stakeholder feedback to enhance our grant-making and execution process and ensure our plans align with community needs.

Finally, the division will offer applicants the option to identify alternative approaches to non-deployment activities in the application process. Organizations are to demonstrate, using data, how covered populations are addressed.

Describe the Eligible Entity's plan to ensure coverage to all unserved and underserved locations prior to allocating funding to non-deployment activities.

Based on our current assessment, North Carolina has 374,412 unserved broadband serviceable locations (totaling 409,445 units of both homes and businesses) and 127,956 underserved broadband serviceable locations (totaling 145,778 units of both homes and businesses). The division will only pursue non-deployment activities once funds for unserved and underserved locations are allocated.

Describe how the Eligible Entity will ensure prospective subgrantees meet the general qualifications outlined on pages 71 – 72 of the BEAD NOFO.

The division will assess each grant application based on its proven experience and accomplishments including how covered population needs are addressed. The application will prompt the applicant to explain how it expects to accomplish the grant's objectives and what risks it sees in accomplishing the objectives.

The division will execute a contract with each subgrantee to define the compliance requirements including all applicable federal and state laws as well as our division's monitoring requirements.

Once an award is made, the division will conduct a risk assessment of the subgrantees.

Eligible Entity Implementation Activities (Requirement 10)

Describe any initiatives the Eligible Entity proposes to implement as the recipient without making a subgrant, and why it proposes that approach.

Activity	Description	Intended Purpose
Grant Administration	The division will employ more than 14 FTE to administer the three subgrantee grant programs distributing BEAD funding, not including office leadership, legal support, and mapping specialists.	Effective, equitable and responsible distribution of funding to ensure objectives are met.
Challenge Process Development and Implementation	Policy and GIS experts will design a robust and comprehensive challenge process based on the NTIA BEAD Model Challenge Process.	To allow for the efficient distribution of funding to ensure an evidence-based, fair, transparent, and expeditious process for units of local and tribal government, nonprofit organizations, and broadband service providers.
Subgrantee Selection Process Development	Development and implementation of three statutorily created grant programs, detailed herein, including internal controls, guidance for applicants and post-award compliance and reporting.	Implement a subgrantee selection process that is fundamentally fair, open, and competitive to achieve 100% connectivity.
Broadband Mapping	NC OneMap, an open-source, interactive GIS mapping tool, visualizes data collected by the state, as well as other resources related to broadband availability and adoption. https://www.nconemap.gov/pages/broadband	The mapping initiative helps identify unserved and underserved locations to more efficiently direct funding.

Affordable Connectivity Program Outreach	Provides assistance, guidance, and promotional materials for families and community leaders. https://www.ncbroadband.gov/technical-assistance	Increase public awareness of the program and increase the number of eligible households enrolled in the ACP to 1 million (currently 858,921).
Technical Assistance Program	The Technical Assistance Program provides North Carolina’s communities with an on-the-ground resource for broadband expertise.	Community engagement and planning
Community Broadband Planning Playbook	The Community Broadband Planning Playbook provides the tools local governments need to help expand broadband access in their communities.	Empowering local leaders to identify current broadband availability.
Digital Equity Technical Assistance	The Digital Inclusion Plan Template and Guide helps communities create digital inclusion plans to reduce the digital divide and prioritize digital equity for their residents.	Identify assets relevant to broadband deployment. Assist communities by simplifying the process of creating a digital inclusion plan and expediting the implementation of digital inclusion activities.
Broadband Survey & Speed Test	The North Carolina Broadband Survey is designed to gather information on locations in the state without adequate internet access and speeds.	The information gathered from the survey: <ul style="list-style-type: none"> • Provides clear data to guide the investment of funds. • Informs research and policy recommendations. • Supports strategic targeting of additional funding streams
Digital Equity Survey	Data collection and planning	Inform Digital Equity Plan

<p>Public Wi-Fi Mapping</p>	<p>A web-based map and searchable list of public Wi-Fi access locations around the state reported to the division.</p>	<p>The resource provides teachers, students, and others without internet access a map to public locations where free internet access is available.</p>
<p>Community Engagement</p>	<p>The division uses the BEAD and State Digital Equity planning grants to help fund local coordination efforts.</p> <p>The detailed local coordination plan that includes objectives, strategy, timeline, and tools is included in Appendix E, Five-Year Plan.</p>	<p>To ensure that the state’s comprehensive plans to address high-speed internet access and digital equity are inclusive of all N.C. communities and populations’ needs.</p>
<p>Workforce Development and Readiness</p>	<p>The division will implement a Broadband Workforce Plan (Five Year Plan, Appendix F) that will use the services of a consultant to identify and analyze key occupations, conduct, and analyze results from convenings with key employers and labor union representatives to further hone skills, competencies, and credentials for key occupations, and conduct three to four structured interviews with key education and training leaders to create high-level understanding of current workforce development capacity for broadband jobs.</p>	<p>Using this information, the division will establish a vision and goals to meet broadband workforce needs, may develop and implement an employer survey to finalize skills, competencies and credentials for key occupations that will help workforce training providers, create an operational plan that supports critical N.C. broadband workforce needs with a focus on equity and access, and create a monitoring and evaluation plan.</p>

Climate Assessment	<p>The division will work with the N.C. Office of Recovery and Resiliency in the N.C. Department of Public Safety as detailed in this document to assess and plan for climate related risks to new infrastructure projects.</p>	<p>Develop guidance for subgrantees to facilitate the mitigation of infrastructure and connectivity disruptions due to climate-related events.</p>
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Labor Standards and Protection (Requirement 11)

Describe the specific information that prospective subgrantees will be required to provide in their applications and how the Eligible Entity will weigh that information in its competitive subgrantee selection processes. Information from prospective subgrantees must demonstrate the following and must include information about contractors and subcontractors:

- a. Prospective subgrantees’ record of past compliance with federal labor and employment laws, which:**
 - i. Must address information on these entities’ compliance with federal labor and employment laws on broadband deployment projects in the last three years;**
 - ii. Should include a certification from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the subgrantee, as well as all contractors and subcontractors; and**
 - iii. Should include written confirmation that the prospective subgrantee discloses any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding three years.**
- b. Prospective subgrantees’ plans for ensuring compliance with federal labor and employment laws, which must address the following:**
 - i. How the prospective subgrantee will ensure compliance in its own labor and employment practices, as well as that of its contractors and subcontractors, including:**
 - 1. Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the broadband network; and**
 - 2. How the subgrantee will ensure the implementation of workplace safety committees that are authorized to raise**

health and safety concerns in connection with the delivery of deployment projects.

The division is committed to ensuring that all subgrantees align with its strategic objectives and core values, particularly in the areas of labor standards and safeguarding workers. In selecting prospective subgrantees, the division will follow a structured application and contracting process that ensures that it partners with entities that share its commitment to labor compliance. The subgrantee evaluation process outlined below will be tailored to meet the NOFO requirements, helping to ensure compliance with state and federal labor and employment laws throughout the phases of BEAD projects.

The division's selection process will require that applicants provide documentation describing their compliance with federal and state labor and employment laws during the prior three years. This approach will help the division evaluate the prospective subgrantees and mitigate the risk of selecting noncompliant subgrantees to ensure that BEAD projects are carried out with the highest level of quality and compliance.

The selection process will require the following from subgrantees:

- **Compliance Documentation:** The application will require the subgrantee to certify its compliance with state and federal labor and employment laws. The division will require that an officer of the entity sign this documentation.
- **Subcontractor Information:** The division will require the subgrantee to obtain similar compliance certification from each existing and prospective subcontractor and contractor the subgrantee employs for the grant project.

The division aims to encourage a culture of compliance that extends throughout the entire organization.

The division will require prospective subgrantees to disclose any past violations. Specifically, subgrantees will need to provide written confirmation of any instances in the preceding three years where they, or their affiliated contractors or subcontractors, have violated regulations covered under the Occupational Safety and Health Act, the Fair Labor Standards Act, and/or any other relevant state or federal labor and employment law.

By requiring such disclosure, the division aims to create an environment where prospective subgrantees are forthcoming about past discrepancies, allowing the division to assess their track record and commitment to fair pay and a safe work environment.

As part of the application process, the division will require prospective subgrantees to submit a Monitoring and Compliance Plan outlining how they intend to monitor and ensure compliance with labor and employment laws, which should include a plan for ensuring compliance by their contractors and subcontractors. This requirement will help emphasize that the subgrantees' partners must also be committed to labor standards and safeguarding workers.

The division will require information from subgrantees as part of the subgrantees' Monitoring and Compliance Plans regarding the wage structures of employees who will be directly involved in the construction of broadband networks. Along with this information, prospective subgrantees will also be asked to provide information related to their labor and employment practices concerning wages and overtime payments.

To prioritize workplace safety, the division will require subgrantees to establish and maintain robust safety plans. These plans should include workplace safety committees that can identify and address health and safety concerns in the workplace or on worksites in connection with the delivery of deployment projects.

Describe in detail whether the Eligible Entity will make mandatory for all subgrantees (including contractors and subcontractors) any of the following and, if required, how it will incorporate them into binding legal commitments in the subgrants it makes:

- a. Using a directly employed workforce, as opposed to a subcontracted workforce;**
- b. Paying prevailing wages and benefits to workers, including compliance with Davis-Bacon and Service Contract Act requirements, where applicable, and collecting the required certified payrolls;**
- c. Using project labor agreements (i.e., pre-hire collective bargaining agreements between unions and contractors that govern terms and conditions of employment for all workers on a construction project);**
- d. Use of local hire provisions;**
- e. Commitments to union neutrality;**
- f. Use of labor peace agreements;**
- g. Use of an appropriately skilled workforce (e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers, particularly those underrepresented or historically excluded);**
- h. Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and**
- i. Taking steps to prevent the misclassification of workers.**

The division will require that subgrantees follow all applicable state and federal labor and employment laws and regulations and align with associated BEAD NOFO guidelines. The division will make compliance with applicable labor and employment laws part of the binding legal commitment with the subgrantee and any of the following that the subgrantee commits to as part of its application:

- As set out in the BEAD NOFO, paying prevailing wages and benefits to workers, including compliance with Davis-Bacon and Service Contract Act requirements, where applicable according to total project cost;
- Use of local and North Carolina based hire provisions;
- Use of an appropriately skilled workforce (e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers, particularly those underrepresented or historically excluded);
- Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and
- Taking steps to prevent the misclassification of workers.

Workforce Readiness (Requirement 12)

Describe how the Eligible Entity and their subgrantees will advance equitable workforce development and job quality objectives to develop a skilled, diverse workforce. At a minimum, this response must clearly provide each of the following, as outlined on page 59 of the BEAD NOFO:

- a. A description of how the Eligible Entity will ensure that subgrantees support the development and use of a highly skilled workforce capable of carrying out work in a manner that is safe and effective;**
- b. A description of how the Eligible Entity will develop and promote sector-based partnerships among employers, education and training providers, the public workforce system, unions and worker organizations, and community-based organizations that provide relevant training and wrap-around services to support workers to access and complete training (such as child care, transportation, mentorship, etc.), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities;**
- c. A description of how the Eligible Entity will plan to create equitable on-ramps into broadband-related jobs, maintain job quality for new and incumbent workers engaged in the sector; and continually engage with labor organizations and community-based organizations to maintain worker voice throughout the planning and implementation process; and**
- d. A description of how the Eligible Entity will ensure that the job opportunities created by the BEAD Program and other broadband funding programs are available to a diverse pool of workers.**

North Carolina's Broadband Workforce Vision and Goals

North Carolina's BEAD workforce vision is to support a high quality, diverse workforce to effectively deploy universal broadband access across the state. Goals include:

1. Develop strategies to bolster the estimated 6,100 broadband jobs that will be created between 2024-2028.
2. Create a more diverse broadband workforce through the development of job quality and equity measures that can be used to set collaborative goals for broadband-related training.
3. Ensure workforce standards and federal employment requirements are satisfied in all subgrantee contracts.
4. Create a career pathway for the broadband sector that will communicate on-ramps and career advancement opportunities in the sector.
5. Develop fiber technician training capacity in at least three North Carolina community colleges that result in at least 630 credentialed fiber technicians.
6. Support broadband summer learning opportunities for high school students.
7. Continue the state's current broadband workforce advisory committee to act as a sector partnership that will continue to inform strategies and track progress toward the state's workforce goals.

Setting a Pathway to Achieve Broadband Workforce Goals

The division will undertake the following strategies to support achieving the state's broadband workforce goals.

Enforce Workforce Standards & Federal Employment Requirements

The division is committed to ensuring that all subgrantees align with its strategic objectives and core values, particularly in the areas of labor standards and safeguarding workers. In selecting prospective subgrantees, the division will follow a structured application and contracting process that ensures that it partners with entities that share its commitment to labor compliance. The subgrantee evaluation process will be tailored to meet the NOFO requirements, helping to ensure compliance with state and federal labor and employment laws throughout the phases of BEAD projects. Additional details are available in the Labor Standards and Protections section of the Initial Proposal.

Create a career pathway to map on-ramps to entry-level broadband jobs and career advancement opportunities.

The division asked the NCWorks Commission and the Piedmont Triad Regional Workforce Development Board to lead efforts to create a career pathway for the broadband sector that will recruit a more robust and diverse workforce to the sector. Located in the central part of the state, this local area workforce development board has experience partnering with the broadband sector, education, and community-based organizations to expand digital literacy in the region's workforce.

The development of the career pathway will follow national best practices, including: engaging with employers and education partners to map broadband sector entry-level jobs and training programs; identifying on-ramps for those jobs as well as career advancement opportunities; embedding stackable credentials within the pathway that lead to degree programs; creating strong visuals that illustrate the pathway in terms of jobs, wages, and job requirements; and developing template communication and marketing assets that use clear and culturally-responsive messaging that resonates with diverse populations. The career pathway will be adapted for use in other parts of the state by other workforce boards and education partners to aid in creating more on-ramps to the sector and improving digital literacy within the workforce.

Develop regional training hubs at community colleges to offer fiber technician credentials.

North Carolina has 58 community colleges, one of the strongest and largest systems in the nation. The N.C. Community College System will lead efforts to establish additional fiber technician training at its colleges. The labor market analyses and employer listening sessions conducted for this plan indicated that pre-employment training through community colleges will be a key factor to boost the talent pipeline and to create a more diverse workforce. More specifically:

- The N.C. Community College System will lead a process to engage with colleges to identify sites for augmented/new broadband training programs. They will be selected based 1) geographic diversity across the state, 2) partnerships with employers, 3) ability to create lab space required for the training; and 4) in some cases, leverage training for other sectors that may use some of the same equipment and expertise. The system has a track record of doing similar work for other sectors, such as the biotech manufacturing sector.

- Regional training hubs supported by this plan will offer short-term entry-level fiber technician credentials that focus on safety, quality installation, and industry value. Priority will be given to credentials on the state's "credentials of value" list. NC Workforce Credentials are priority, non-degree credentials identified by the state that lead to family sustaining-wage careers as identified by a cross sector partnership between the N.C. Department of Commerce, N.C. Department of Public Instruction (NCDPI), and the N.C. Community College System. Credentials can be submitted for consideration and are added on a quarterly basis if validated and recommended by a statewide advisory council. Inclusion on the list also opens no-cost pathways for some students to earn the credential through financial aid for short-term credentials provided by the state under the Short-Term Workforce Grants program funded by the state legislature.
- Based on input from the education and training capacity scan, training cohorts should average 10 individuals. This plan anticipates each training hub will run between three and five training cohorts per year, with a total goal of 630 certified fiber technicians completing over the five-year grant. Training hubs will also be available to broadband employers for post-employment training through, for example, incumbent workforce training resources offered by the N.C. Department of Commerce and the N.C. Community College System and in partnership with employers seeking additional skilling and re-skilling needs.
- Employers' roles: Securing qualified instructors to prepare fiber technicians is a challenge because state instructional salaries are not competitive with those of industry. This plan calls for industry partners to be central partners in identifying or providing instructors to teach the training courses. For example, recent retirees or contractors are often excellent instructors. North Carolina expects industry to be strong partners in fulfilling this component of the state's broadband plan. In addition, some employers may have physical facilities and consumable training materials that could be in-kind contributions. Articulating how a company will support the creation of a high quality and diverse broadband workforce by identifying instructors and by providing in-kind contributions to regional training hubs will be a component of broadband deployment proposals.
- Establishing and operating three training hubs over the five years will cost approximately \$2.2 million. (See budget in Appendix B.) This estimate includes start-up equipment and curricular costs, project management, instructor costs, training consumables, and tuition support for half of trainees. The N.C. Community College System will use BEAD funds to hire a community college-based project manager and lead instructor to coordinate the hubs and to train additional instructors in a train-the-trainer model.

Support a diverse workforce for the broadband sector.

The division will partner with community-based organizations to recruit and support diverse populations to complete fiber technician training at the regional community college training hubs described earlier. In partnership with employers, community-based organizations will 1) use the communications assets created as part of the career pathway development process, recruit students from underrepresented groups, including Black, Latino, and female residents, 2) as needed, provide training stipends, career readiness skills, and holistic supports such as child care vouchers, transportation, and emergency assistance, 3) offer case management services so that students have frequent and supportive connection to assistance from someone who can help them navigate supports they need in order to successfully complete their training. In

addition, the division will encourage employers to undertake community outreach (e.g., career fairs, connections with local high schools, etc.) to broaden familiarity with the sector and to help recruit a more diverse workforce.

These are the evidence-based strategies needed to ensure equitable access to and completion of training programs that will ensure the state meets its target for individuals entering the broadband sector as credentialed fiber technicians with access to continued career advancement.

The division engages with two community-based organizations— El Centro Hispano and the Urban League of Central Carolinas, both of which have representation on the broadband advisory committee—and will continue to partner with them to implement the plan.

The estimated cost for these strategies is \$967,000 (see Appendix B) over the five-year period. One potential funding source for this portion of the plan is NextGen training dollars for opportunity youth, which are federal funds managed by workforce boards across the state. Other Workforce Innovation and Opportunity Act funds may also be used to support individuals in broadband training programs. In addition, collaborators may seek philanthropic support to fund this portion of the workforce plan, especially the holistic support and case management services.

Partner with school districts to create Career Accelerators and dual enrollment on-ramps to the broadband sector.

Using pandemic relief funds, the N.C. Department of Public Instruction (NCDPI) developed summer Career Accelerators to connect high school students to career opportunities through evidenced-based, high quality experiences. NCDPI will explore establishing a Career Accelerator training for rising senior and/or recent high school graduates at each of the regional training hubs at community colleges starting summer of 2024. Additional planning will take place in 2024 to determine if high school students are ready to complete the full fiber technician credential as part of the Career Accelerator or whether they will take an introductory curriculum that prepares them to later complete the full certification.

North Carolina has strong dual enrollment programs and funding support that enable many opportunities to earn college credit while in high school. Non-credit pathways are included in the state's dual enrollment framework, and NCDPI and the N.C. Community College System will work with local partners to establish a Career and College Promise pathway for each of the regional training hubs.

Similar to the regional training hubs, implementing plans for the Career Accelerators and dual enrollment pathways will require partnerships with broadband employers to identify and support qualified instructors to teach these programs.

Funding support for dual enrollment opportunities comes from the state's Career and College Promise funding program. There are also remaining pandemic relief dollars to support Career Accelerators in the summer 2024. After that, NCDPI and the division will look for sustainability partners to continue the program.

Promote pre-apprenticeships and apprenticeships.

There are currently pre-apprenticeship and apprenticeship programs in North Carolina for this sector, some of which are registered with the U.S. Department of Labor. The division will encourage ApprenticeshipNC, the state apprenticeship agency, housed within the N.C. Community College System to promote these opportunities and look for opportunities to support their growth and development, particularly connecting more diverse candidates to these opportunities. Another area of emphasis will be encouraging employer partners to identify journeymen to support apprentices in the workplace.

Create a sector partnership to continue to support and monitor progress toward goals.

The division will explore the feasibility of the NCWorks Commission, the state's workforce development board, continuing to convene the current broadband advisory committee through 2025 to support and monitor progress toward goals and to drive and support implementation of the workforce plan.

The composition of the committee comprises all the stakeholders needed for a sector partnership: employers, education partners, policymakers, and community-based organizations. The role of the committee will be to:

- align partners as the workforce plan is implemented;
- showcase workforce wins that can be emulated across the state;
- assess progress toward goals (see evaluation plan below) and refine strategies as needed, including any new opportunities that emerge; and
- develop a structure that may be sustained by partners beyond the parameters of the BEAD grant.

The division will collaborate with the NCWorks Commission to determine the funding support necessary to take on this role.

Monitoring and Evaluation Plan

The division will annually evaluate progress on the workforce plan goals as part of its Key Performance Indicators. The evaluation will focus on the goals and metrics set out earlier in the plan. When it comes to the broadband-specific training offered through the regional training hubs described previously, the division will track traditional workforce development measures, job quality measures, and workforce equity measures.

Traditional Workforce Development Measures

For training offered through the proposed regional training hubs, the state will collect and track the traditional workforce development measures used for the Workforce Innovation and Opportunity Act (WIOA). The six core measures for adults are the following: 1) employment rate in the second quarter after program exit; 2) employment rate in the fourth quarter after program exit; 3) median earnings in the second quarter after program exit; 4) credential attainment; 5) measurable skills gains; and 6) effectiveness serving employers.ⁱ

Using the core WIOA measures as a starting point will allow for the drawing of comparisons with existing workforce development programs. It also will help with program administration, as public agencies in North Carolina already have data tracking and reporting systems designed to capture that information. The use of such measures also will facilitate the use of any additional

training funding that may be provided for broadband-related training from the NCWorks Commission.

Job Quality Measures

While traditional workforce development measures are uniform and standardized, they do not capture the quality of the jobs that program participants obtain.ⁱⁱ Yet job quality plays an essential role in determining whether a worker advances economically, commits long term to an employer, remains in a specific occupation, and continues to participate in the labor market.

In the process of developing the regional training hubs, the division will work with its training partners to develop and track performance indicators related to job quality. The general approach will be inspired by the job quality framework used by the Organization for Economic Co-Operation and Development (OECD)—a framework that uses multiple measures to assess three areas: earnings quality, labor market security, and workplace environment.

Given the limitations of existing performance reporting systems used in North Carolina, it may not be possible to apply the OECD framework directly, but by developing versions of these measures as part of the design process will allow for BEAD funding to help catalyze larger changes in how North Carolina assesses the success of workforce development programs.

Workforce Equity Measures

As noted previously, the current workforce in the broadband sector does not mirror the diversity of the state's larger workforce or population. At the same time, many existing data sources related to the labor market and workforce development programs do not capture enough data to meaningfully assess the equity impacts of various interventions. In the process of standing up the regional training hubs, the division will work to ensure that data systems capture the demographic information from participants needed to formulate equity goals, steer outreach, and track progress toward those ends. This will involve designing intake forms to capture key data like age, race/ethnicity, gender, geography, receipt of public assistance, limited English proficiency, and veteran status.

Once the division and its training partners establish what kinds of participant data can be collected, they then can work with the advisory committee to establish equity goals that could be achieved, such as setting targets for the number of women entering the broadband sector. A collaborative process will ensure that the selected metrics are shared by the state, training institutions, and industry, which will ensure that progress toward them can be made.

Describe the information that will be required of prospective subgrantees to demonstrate a plan for ensuring that the project workforce (including contractors and subcontractors) will be an appropriately skilled and credentialed workforce.

These plans should include the following:

- a. **The ways in which the prospective subgrantee will ensure the use of an appropriately skilled workforce, e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers;**
- b. **The steps that will be taken to ensure that all members of the project workforce will have appropriate credentials, e.g., appropriate and relevant pre-existing occupational training, certification, and licensure;**

- c. **Whether the workforce is unionized;**
- d. **Whether the workforce will be directly employed or whether work will be performed by a subcontracted workforce; and**
- e. **The entities that the proposed subgrantee plans to contract and subcontract with in carrying out the proposed work.**

The division will require that subgrantees provide the information described for this requirement.

If the project workforce or any subgrantee's, contractor's, or subcontractor's workforce is not unionized, the subgrantee must also provide with respect to the non-union workforce:

- a. **The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce;**
- b. **For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:**
 - i. **Safety training, certification, and/or licensure requirements (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training as relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications, titles; and**
 - ii. **Information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.**

The division will require that subgrantees provide the information described for this requirement.

Minority Business Enterprises (MBEs)/ Women's Business Enterprises (WBEs)/ Labor Surplus Firms Inclusion (Requirement 13)

Describe the process, strategy, and the data tracking method(s) the Eligible Entity will implement to ensure that minority businesses, women-owned business enterprises (WBEs), and labor surplus area firms are recruited, used, and retained when possible.

The division acknowledges the importance of investing in Minority and Women Owned Business Enterprises (MWBEs) and ensuring equity and inclusion in contracting opportunities for them. By leveraging the funding allocated for BEAD programs from the Bipartisan Infrastructure Law, the division is committed to establishing a strategy and process that would enable underrepresented groups equal opportunities to participate, work, and succeed in BEAD deployment ventures. Federal and state guidelines will be strictly followed, and MWBEs will be actively engaged through outreach efforts and capacity-building initiatives. We aim to foster an environment promoting Diversity, Equity, Inclusion, and Accessibility (DEIA) in the broadband industry and promote economic and employment growth in North Carolina.

The division seeks to leverage resources from the N.C. Department of Administration's Office of Historically Underutilized Businesses and other partnerships to improve contracting opportunities

for firms in Labor Surplus Areas. Based on the latest FY 2024 list from the U.S. Department of Labor, 16 areas in North Carolina have been classified as "labor surplus areas" due to their average unemployment rate being at least 20% higher than the average annual civilian unemployment rate for all states (including Puerto Rico).

To promote DEIA in contracting and foster business growth among underrepresented groups, the division intends to implement an effective process, strategy, and data tracking methods. Existing partnerships and initiatives within the state will be utilized to achieve this goal. These include:

1. N.C. Historically Underutilized Businesses (HUB) Office¹

In North Carolina, minority and women-owned business enterprises fall under the HUB Office, established in April 1999 under Executive Order 150. The HUB Office's mission is to promote economic opportunities for HUBs (referred to herein as HUBs or MWBEs) in state government contracting and procurement, fostering growth, and profitability. In addition, the HUB Office has several other critical objectives, including:

- Increasing the amount of goods and services acquired by state agencies from businesses owned and controlled by HUB firms.
- Working towards eliminating barriers that hinder HUB firms' participation in the marketplace and in state government procurement and contracting.
- Encouraging purchasing officers and capital project coordinators within state agencies, departments, universities, and community colleges to identify and use HUB vendors, contractors, and service providers.
- Providing education to HUB firms on "How to Do Business" with the state of North Carolina.
- Providing resources for HUB firms to assist with their growth and expansion.
- The HUB Office's primary goals are to facilitate diversity, equity, and inclusivity in government procurement processes, further economic development, and build a strong, competitive vendor community for state agencies.

2. Recruitment and Certifications²

The N.C. Department of Administration (NCDOA) is responsible for overseeing the HUB certification, which provides greater exposure for business opportunities in state procurement and contracting. The names of HUBs are listed in the [Vendor Link System³](#), which is widely used by state agencies, universities, community colleges, local schools, governments, institutions, and the public to locate HUBs for goods, services, and construction. The certifications and database can be leveraged to identify potential partners for subcontracting opportunities.

3. Prequalification and Selection

In compliance with state regulations and as part of its broader commitment to promoting equity and diversity in the business community, the division aims to support and promote the success of MWBEs. To this end, the division is dedicated to adhering to relevant provisions within North Carolina law, including but not limited to following:

¹ Office for Historically Underutilized Businesses, N.C. Department Of Administration, [Link](#)

² Office for Historically Underutilized Businesses, N.C. Department Of Administration, [Link](#)

³ Vendors List : North Carolina electronic Vendor Portal , [Link](#)

N.C.G.S. § 143-48
Purchase and Contract: cooperation in promoting the use of small contractors, minority contractors, physically handicapped contractors, and women contractors.

N.C.G.S. § 143-48.4
Statewide uniform certification of Historically Underutilized Businesses.

Executive Order No. 25, November 2, 2017
Promoting state agency utilization of Historically Underutilized Businesses.

4. Monitoring and Tracking

The division, in collaboration with eligible contractors and other state entities, will monitor and evaluate the participation of MWBE firms in the broadband deployment initiative. To increase MBE and WBE participation, the division will capture and track awards data (including subcontractor data) of MBEs, WBEs, and non-MWBEs. The division may also track broadband providers' outreach efforts to HUB-certified and other MWBE subcontractors.

5. North Carolina Disparity Studies⁴

Promoting MWBE's participation has been at the forefront of business inclusion practices for North Carolina, which has conducted various disparity studies. These disparity studies included a gap analysis and helped in assessing the availability and utilization of MBEs and WBEs as well as aided in identifying relevant evidence of race or gender-based discrimination in state contracting. In addition to existing disparity studies, the division has contracted with a policy analyst to research existing MWBE businesses in North Carolina that fall within commodity codes relevant to broadband deployment. This research should provide an overview of the availability of MWBE firms who could participate in BEAD deployment as subcontractors to known internet service providers within the state.

6. Outreach

The division will prioritize outreach efforts to maximize utilization of MWBEs in broadband deployment. Outreach will target internet service providers as well as MWBEs so MWBEs are aware of upcoming contracting opportunities. The division has consulted with NCDOA's HUB Office, which provided the following outreach suggestions:

- Encourage the use of "pre-bid meetings" to notify potential vendors of bid opportunities.
- Encourage internet service providers to post vendor opportunities on the HUB Office's online dashboard.
- Consider outreach to counties, community colleges, and local organizations who may be more familiar with local HUB vendors.
- Consider outreach via minority media outlets to advertise upcoming opportunities.
- Host an initial outreach meeting with HUB leaders in North Carolina to provide a broad overview of BEAD broadband deployment efforts and timelines.

⁴ Disparity Study Reports, NCDOA's Office for Historically Underutilized Businesses (HUB), [Link](#)

- Host a “Meet the Purchaser” event for providers and HUB vendors to connect in person.
- Coordinate with the HUB Office to host a live demonstration of the HUB database for internet service providers.

7. Stakeholder engagement partner organizations

Beyond its own efforts, the division is planning to leverage state and local partner organizations, such as:

- a) N.C. Minority Business Development Agency Business Center (NCMBDA)⁵** : The NCMBDA Business Center is operated by the HUB Office and offers multiple services including business development, consulting, contract opportunity sourcing, capital sourcing, trainings, capacity building, etc. for MBEs.
- b) Carolinas-Virginia Minority Supplier Diversity Council (CVMSDC)⁶**: The CVMSDC is a private nonprofit organization that works with MBEs to promote equality and opportunities throughout the Carolinas and Virginia. It offers educational, networking, and business resources for its certified members. To qualify, businesses must be at least 51% owned and operated by an ethnic minority, including Hispanic/Latino-American, Asian-Indian American, African American/Black, Native American, or Asian-Pacific American.
- c) The National Institute of Minority Economic Development, the Center for Entrepreneurship, the Women’s Business Centers, and its affiliates⁷. NIMED** provides meaningful education and training, growth strategies and technical assistance for diverse businesses, women at various stages of business, and key stakeholders.
- d) N.C. MWBE Coordinators’ Network⁸** The MWBE Coordinators' Network is committed to ensuring that all segments of the community have an equitable opportunity to participate in professional service contracts, procurement contracts, and construction projects, in both the public and private arenas.
- e) United Minority Contractors of North Carolina (UMCNC)⁹** The UMCNC Association provides access to education and training, business opportunities and supportive services, advocacy and serves as a liaison to industry leaders.
- f) The Hispanic Contractors Association of the Carolinas (HCAC)¹⁰** HCAC is the only association in the Carolinas that focuses on providing solutions and driving Hispanic contractors to grow and succeed in construction.
- g) Greater Women’s Business Council (GWBC)¹¹**: The GWBC is a nonprofit organization that certifies and works with WBEs in Georgia and the Carolinas. Businesses that are at least 51% owned by a woman or women may be eligible for this organization’s WBE certification. As an affiliate of the Women’s Business Enterprise National Council, this program offers significant support and resources for all certified members.

Certify that the Eligible Entity will take all necessary affirmative steps to ensure minority businesses, women’s business enterprises, and labor surplus area firms

⁵ N.C. Minority Business Development Agency Business Center, U.S. Minority Business Development Agency, [Link](#)

⁶ Carolinas-Virginia Minority Supplier Diversity Council, [Link](#)

⁷ [Programs to Enhance Your Businesses - The Institute \(theinstitutenc.org\)](#)

⁸ [N.C. MWBE Coordinators' Network \(mwbenetwork.org\)](#)

⁹ [Home - United Minority Contractors of North Carolina \(umcnc.org\)](#)

¹⁰ <https://thehcac.org>

¹¹ Greater Women’s Business Council, [Link](#)

are used when possible, including the following outlined on pages 88 – 89 of the BEAD NOFO:

- a. Placing qualified small and minority businesses and women’s business enterprises on solicitation lists;
- b. Assuring that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources;
- c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women’s business enterprises;
- d. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women’s business enterprises;
- e. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and
- f. Requiring subgrantees to take the affirmative steps listed above as it relates to subcontractors.

YES, the division will take all necessary affirmative steps to ensure minority businesses, women’s business enterprises, and labor surplus area firms are used when possible, including the above outlined on pages 88 – 89 of the BEAD NOFO.

Cost and Barrier Reduction (Requirement 14)

Identify steps that the Eligible Entity has taken or will take to reduce costs and barriers to deployment. Responses may include but not be limited to the following:

- a. Promoting the use of existing infrastructure;
- b. Promoting and adopting dig-once policies;
- c. Streamlining permitting processes;
- d. Streamlining cost-effective access to poles, conduits, easements; and
- e. Streamlining rights of way, including the imposition of reasonable access requirements.

During BEAD implementation, the division will use policies and practices to create efficiencies for infrastructure deployment like a state-wide “dig once” policy, tower leasing and coordinated permitting processes to expedite and reduce the costs of infrastructure deployment. In North Carolina, a majority of the highways and roadways are maintained by the N.C. Department of Transportation (NCDOT). Utility poles are predominantly owned by private and cooperative electric companies. These existing infrastructure assets will be relied on for the deployment of fiber optic cable and wireless equipment. Over the past several years, the division has fostered and relied on close coordination between NCDOT, electric utilities, and internet service providers during implementation of the state’s broadband grant programs. These relationships successfully resulted in reduced costs and the identification of and removal of barriers. These established working relationships will continue to aid in efficient project execution during BEAD deployment.

Pursuant to Governor Cooper’s [Executive Order 91](#), NCDIT and NCDOT developed a [“dig-once” policy](#) to reduce repeated broadband installation excavations along state-maintained roads that are not part of the National Highway System. The policy requires internet service providers using conventional open-trench construction to provide notice of upcoming joint-trench opportunities through the division. To provide notice, internet service providers submit information about upcoming projects using a form on the NCDOT website.

In preparation for BEAD, the division began meeting monthly with the NCDOT Utilities Division to share broadband project information, coordinate right-of-way access and find ways to streamline permitting processes. It also works closely with NC 811 to educate stakeholders about permitting requirements and processes.

The division meets regularly with representatives of the major railroads in North Carolina to share information about anticipated projects and timelines as well. The division will host a webinar with railroad representatives in November 2023 to educate internet service providers in the state about the railroads’ permit application processes and how they could improve their applications to expedite the process and reduce deployment delays. Infrastructure deployment across railroad crossings continues to be a barrier to broadband expansion throughout the state. Internet service providers throughout the state have shared anecdotal evidence that the permitting process, permit fees and other expenses required by the railroads increase the cost of deployment significantly. The division plans to address this issue with the NC Railroad and freight rail companies.

Currently, North Carolina has a number of state statutes in place to reduce the costs and barriers to deployment, including:

- § 160A-272. Lease or rental of property
- § 146-29.2. Lease or interest in real property for communication purposes
- § 153A-459. County broadband acceleration
- § 160A-296.1. Facilitation of broadband deployment (30-day shot clock on approval of permits to access city right-of-way)
- § 117-28.1. Electric membership corporations; easements (to allow electrical easements to be used for the deployment of broadband infrastructure)
- § 62-350. Regulation of pole attachments

Specific capital project coordination to reduce the costs of deployment.

USDOT INFRA Grant: Funding will allow the widening of two interstate highways in rural eastern North Carolina. The grant will help North Carolina widen up to 25 miles of I-95 and upgrade interchanges, convert US-70 to interstate standards, enhance freight movement throughout the state, and install more than 300 miles of fiber cable and conduit to bring broadband and telecommunication service to many communities in eastern North Carolina. A total of \$147 million was awarded in 2018. As part of the state's US-74 Interstate designation, grant funds will allow for improvements to this east-west highway. The project includes plans to install approximately 300 miles of fiber optic cabling and conduit to accommodate smart transportation assets and to facilitate use by local internet service providers to provide broadband access to rural areas of the state.

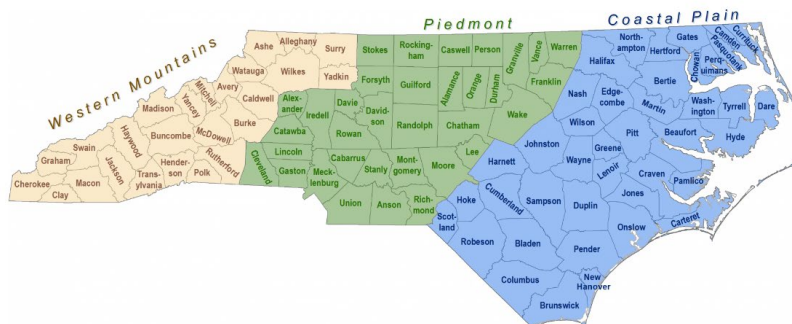
Climate Assessment (Requirement 15)

Describe the Eligible Entity's assessment of climate threats and proposed mitigation methods. If an Eligible Entity chooses to reference reports conducted within the past five years to meet this requirement, it may attach this report and must provide a crosswalk narrative, with reference to page numbers, to demonstrate that the report meets the five requirements below. If the report does not specifically address broadband infrastructure, provide additional narrative to address how the report relates to broadband infrastructure. At a minimum, this response must clearly do each of the following, as outlined on pages 62 – 63 of the BEAD NOFO:

- a. Identify the geographic areas that should be subject to an initial hazard screening for current and projected future weather and climate-related risks and the time scales for performing such screenings;
- b. Characterize which projected weather and climate hazards may be most important to account for and respond to in these areas and over the relevant time horizons;
- c. Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment;
- d. Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and
- e. Describe plans for periodically repeating this process over the life of the Program to ensure that evolving risks are understood, characterized, and addressed, and that the most up-to-date tools and information resources are utilized.

North Carolina, located in the southeastern region of the United States, is bordered by Virginia, Tennessee, Georgia, South Carolina, and the Atlantic Ocean. It ranks ninth in terms of population and twenty-eighth in terms of land area¹². The state comprises the Appalachian Mountains in the west, the Piedmont Plateau in the central region, and the Coastal Plains in the east. Due to its varied geographical topography, there are significant temperature variations across the state, which makes North Carolina susceptible to a wide array of climate hazards.¹³

Figure: North Carolina Geographical Topography



¹² [NCpedia](#)

¹³ [North Carolina - State Climate Summaries 2022 \(ncics.org\)](#)

According to the North Carolina Climate Science Report published in 2020, annual average temperatures in North Carolina have risen by 1° (Fahrenheit) since 1895. Relative to the current climate (1996–2015), the state's annual average temperature is very likely to increase 2°–10°F by the end of the century under various scenario analyses.¹⁴ Communities are already experiencing the impacts of these changes.

The coastal region of the state is particularly vulnerable. Sea level has risen about 2 inches per decade on the northeastern coast of the state since 1978. Along the southeastern coast of North Carolina, sea levels have risen about 1 inch per decade since 1935.¹⁵ This change in ocean levels erodes beaches, washes away coastal infrastructure, submerges lowlands, and increases coastal flooding.¹⁶ These climate hazards are predicted to increase in frequency and intensity as temperatures continue to rise.

The division will consider climate hazards for broadband infrastructure deployment under the BEAD program. The approach will include identification of risk areas, determination of specific climate risks impacting those areas, and implementing the necessary mitigation strategies to address the risks. The division will invest in building resiliency in its broadband infrastructure, which will require additional expenditures to deploy efficient systems like backup networks, microgrids, etc.

Identify the geographic areas that should be subject to an initial hazard screening for current and projected future weather and climate-related risks and the time scales for performing such screenings.

The division conducted an initial hazard screening using the Broadband Climate Risk Mitigation Tool¹⁷ developed by the Center on Rural Innovation in the United States. The tool is designed to facilitate decision-making regarding broadband deployment and considers the various types of natural hazards and the different levels of climate risks associated with different counties throughout the state.

The tool assigns percentile scores to counties based on national percentile ranks, which helps assess geographical areas at risk for climate hazards. These ranks are derived from Expected Annual Building Loss Estimates found in the National Risk Index created by the Federal Emergency Management Agency (FEMA). Expected Annual Building Loss serves as a proxy for broadband infrastructure vulnerability and represents the average economic loss for the community in dollars resulting from natural hazards each year.

As a result of the hazard screening, the division identified geographies falling within the 80th percentile for risk scoring based on the Broadband Climate Risk Mitigation Tool. The tool classifies locations scoring higher than the 80th percentile risk score in the "Very High" category of climate hazard risk. Several counties in North Carolina, which spread across the state's varied topography, have a score that falls within or greater than the 80th percentile and are susceptible to different types of climate hazards such as hurricanes, ice storms, heatwaves, and wildfires.

¹⁴ [North Carolina Climate Science Report \(ncics.org\)](https://www.ncics.org/)

¹⁵ [North Carolina Climate Science Report \(ncics.org\)](https://www.ncics.org/)

¹⁶ <https://www.epa.gov/climate-indicators/climate-change-indicators-sea-level>

¹⁷ [Broadband Climate Risk Mitigation Tool © 2023 Center on Rural Innovation Supported by Connect Humanity](#)

Table: List of counties with very high climate hazard risk		
Beaufort	Bladen	Brunswick
Buncombe	Cabarrus	Carteret
Columbus	Craven	Cumberland
Dare	Duplin	Durham
Forsyth	Gaston	Guilford
Harnett	Hertford	Hyde
Johnston	Lenoir	Martin
Mecklenburg	Moore	Nash
New Hanover	Onslow	Pamlico
Pasquotank	Pender	Pitt
Robeson	Sampson	Union
Wake	Wilson	

The division plans to perform this hazard screening on as needed basis to evaluate weather and climate-related risks.

The division plans to require BEAD subrecipients to provide climate resiliency and mitigation plans in identified geographical areas. In their proposals, BEAD subrecipients must submit an action plan that considers technology, design, and retrofitting measures for climate hazard events. This requirement ensures that proposals for broadband infrastructure projects in hazardous areas take appropriate and necessary steps to mitigate and manage the potential risks to the infrastructure and communities in the region.

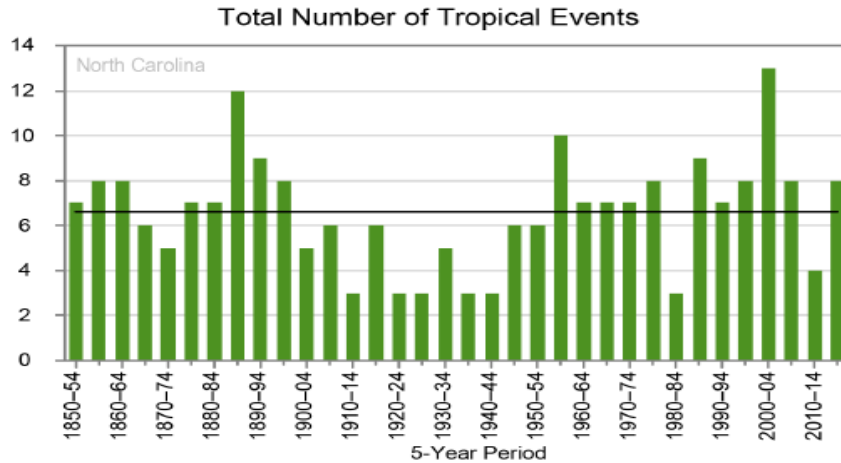
Characterize which projected weather and climate hazards may be most important to account for and respond to in these areas and over the relevant time horizons.

Due to North Carolina's geographical variability, the state identified a wide range of weather and climate hazards that pose a threat to broadband deployment. The following climate risks are the most pressing and require attention and response over the relevant time horizon¹⁸:

- a. **Tropical storms and hurricanes** - North Carolina's coastal plain makes up 45% of the state's area, which increases the likelihood of hurricanes and storms, particularly affecting the central and eastern portions of the state. According to the National Oceanic and Atmospheric Administration (NOAA), North Carolina experiences a storm at hurricane intensity once every three years, on average. Additionally, severe storms can cause significant infrastructure damage similar to a hurricane. The following chart displays the total number of tropical storms and hurricanes passing near or over North Carolina. The long-term average for North Carolina is six tropical events per five-year period, as reported by the U.S. Geological Survey, N.C. Institute for Climate Studies (NCICS), and NOAA. With hurricanes passing near or over North Carolina, there is a high probability of heavy precipitation, which increases the potential for freshwater flooding in the state.

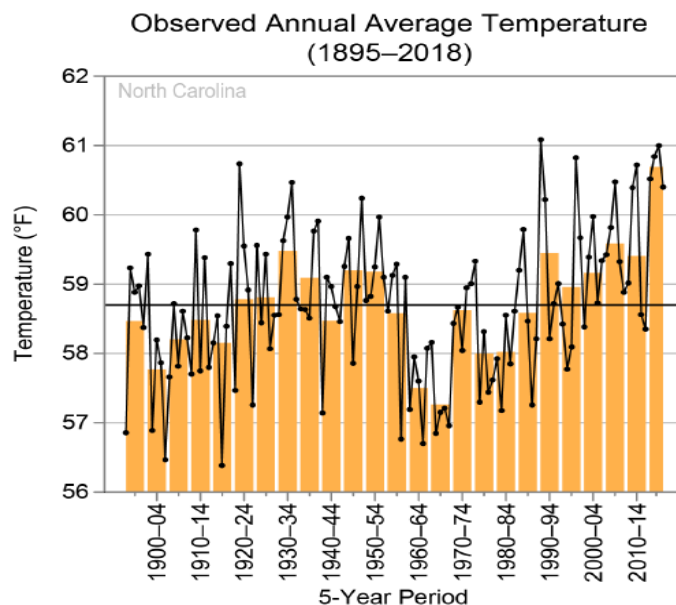
Figure: Total Number of Tropical Events

¹⁸ [North Carolina - State Climate Summaries 2022 \(ncics.org\)](https://www.ncics.org/2022/01/north-carolina-state-climate-summaries-2022/)



- b. **Temperature and Sea Level Rise** - The temperature in North Carolina increased by almost one and a half degrees Fahrenheit since the beginning of the 20th century. Since the 1970s, temperatures have been steadily rising, causing concerns about sea level rise in coastal areas due to the increased number of tidal floods that cause infrastructure damage. North Carolina has low elevation areas comprising half of its land area, half of which is at or below 500 feet above sea level, making it especially vulnerable to rising sea levels. The following figure displays the annual average temperature rise in North Carolina, indicating an overall trend of increasing temperatures. It is highly likely that summer heat index values will continue to rise in North Carolina.

Figure Observed Annual Average Temperature



- c. **Ice Storms** - The western region of North Carolina comprises the Appalachian Mountains, which can receive an annual average of 100 inches of snowfall. The presence of the Appalachian Mountains in North Carolina can result in a phenomenon called cold-air damming, where a shallow layer of cold air moves southward across the Carolinas. The

weather conditions associated with snow and ice storms can cause significant damage to broadband infrastructure, as they place extra strain on cables and increase operating and capital expenditures. These conditions make it essential to design and construct broadband infrastructure in these regions with careful consideration of environmental and climatic factors.

- d. **Landslides** – Another issue in the western region of North Carolina is landslides. As the number heavy precipitation events — defined as three inches or more in a day — increase, so do the number of landslides. A landslide can cause significant damage to broadband infrastructure, knocking out aerial cables, towers, and other critical infrastructure components.
- e. **Wildfires** - The Bermuda High is a high-pressure system off the Atlantic coast that affects the summer climate of North Carolina. When the Bermuda High extends towards the coast, hot and dry weather follows, leading to heatwaves and droughts in the state. In the Piedmont region of the state, moderate or severe drought conditions can occur during these periods. Experts anticipate an increase in the severity of droughts in the state, making climate conditions more suitable for wildfires. North Carolina is positioned in the region of the nation with the highest annual average number of wildfires in the continental United States.¹⁹ These conditions can pose a threat to broadband infrastructure in affected areas of the state, making it crucial to consider the impact of droughts and wildfires in the development of broadband infrastructure in these regions.

Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment.

In line with the BEAD Program objective of expanding internet access to unserved and underserved locations²⁰, North Carolina will identify non-metropolitan areas outside of the metropolitan regions for broadband deployment. Further screening of climate hazard-prone counties identified counties that require additional attention and resources to mitigate potential risks to new infrastructure deployed using BEAD Program funds. The counties that fall within the 80th percentile or greater for risk scores are the focus of this effort. These counties include:

Table: Priority counties to consider for climate hazard for infrastructure deployment		
Beaufort	Bladen	Cabarrus
Carteret	Columbus	Dare
Duplin	Gaston	Harnett
Hertford	Hyde	Lenoir
Martin	Moore	Pamlico
Pasquotank	Pender	Robeson
Sampson	Wilson	

Most of these counties are in the eastern region of North Carolina. Therefore, it can be concluded that the primary climate risks related to new broadband infrastructure deployment in these counties are hurricanes, sea-level rise, and flooding. These risks can cause significant damage to broadband infrastructure and impact connectivity in the region, making it crucial to

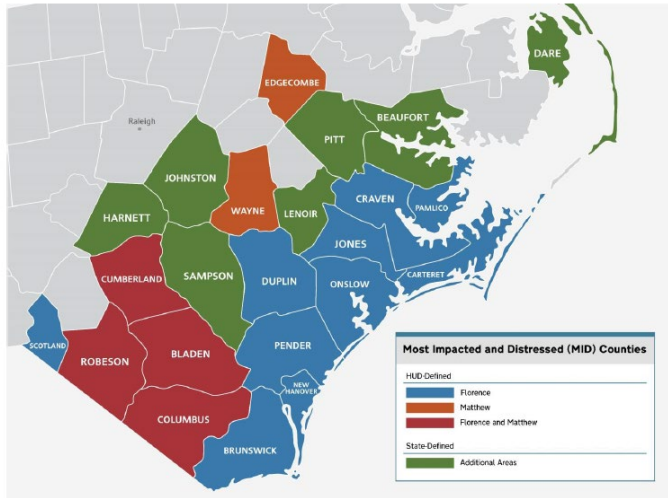
¹⁹ [North Carolina Climate Science Report \(ncics.org\)](https://www.ncics.org/)

²⁰ [Broadband Equity Access and Deployment Program | BroadbandUSA \(doc.gov\)](https://www.broadbandusa.gov/)

take appropriate measures and strategies to mitigate risks and ensure resilience of the infrastructure to protect public safety.

Most Impacted and Distressed Counties

HURRICANES FLORENCE AND MATTHEW



**Note: State-defined MID counties (in Green) are currently not eligible for the Homeownership Assistance Program through the North Carolina Housing Coalition.*

Hurricanes Florence and Matthew hit North Carolina particularly hard, resulting in a host of counties becoming distressed and struggling to recover. The graphic shows counties that faced significant disruption as hurricanes damaged infrastructure, disrupted local businesses, and rendered vast swathes of these counties uninhabitable. The combined effect of Florence and Matthew has been devastating for these counties, highlighting the need to build resilience against such storms by constructing adaptive and robust infrastructure and implementing proactive response measures.

Coastal Risk

Hurricanes, storms, and resulting tornadoes can have a significant impact on broadband infrastructure. These events can disrupt broadband services due to flooding, power outages, loss of backhaul connections, damaging debris, and limited site access.²¹ The strong winds and heavy rains associated with these weather events can cause damage to cables, towers, and other critical infrastructure components, frequently causing extended outages. In the aftermath of these disasters, restoring broadband services can be a complex and time-consuming process, requiring significant investment and technical expertise. These events make it necessary to formulate and implement disaster readiness and recovery plans to minimize disruptions caused by hurricanes, storms, and tornadoes in the deployment of broadband infrastructure.

Mountainous Region Risk

An increase in precipitation, whether in the form of rain or snow, leads to higher risks of flooding and landslides, which can impact underground and low-lying infrastructure, including broadband infrastructure. The stability of broadband infrastructure can be impacted as telecommunication lines are prone to damage or disconnection due to flooding. Additionally, increased precipitation can affect the radio spectrum on which wireless communications rely, leading to poor signal strength and limited connectivity. In uneven terrains, services may require the use of increased transmission power to withstand poor weather conditions, limiting their accessibility to users.²² Therefore, it is essential to take into consideration the effects of increased precipitation,

²¹ [fcc.gov](https://www.fcc.gov)

²² [climate-change-considerations-in-broadband-network-development-2023.09.11.pdf](https://www.ny.gov/document/2023/09/11/climate-change-considerations-in-broadband-network-development-2023.09.11.pdf) (ny.gov)

landslides, and flooding on broadband infrastructure and address these risks in the design and implementation phase of new broadband infrastructure deployment.

Specific Risks to Broadband Infrastructure

The following hazards could pose a risk to new infrastructure deployed using BEAD funds:

- **Increased Precipitation:**
 - Increased risk of flooding of low-lying infrastructure, access-holes, and underground facilities.²³
 - Increased erosion, landslide, or flood damage to transport and backbone structures which may expose cables / trunk routes.²⁴
 - Reduced quality of wireless service with higher rainfall rates.
 - Increased flood risk to assets located in flood plains or urban environments (increase in flash floods), e.g., data centers, exchanges.²⁵
 - Increasing difficulty to repair faults and restore service with increasing volume of adverse weather-related problems.
- **Extreme Events:**
 - Increases in storm frequency or intensity increase the risk of damage to above-ground transmission infrastructure (masts, antennae, switch boxes, aerials, overhead wires, and cables), which are often final access connections to homes and businesses and may negatively impact telecommunications service delivery.²⁶
 - An increase in storm frequency could lead to more lightning strikes, which can damage transmitters and overhead cables, causing power outages.²⁷
 - Severe winds may knock off branches from trees or displace unfastened infrastructure causing outages and general damage.
 - Ice and sleet storms can cause power outages, impact telecommunication lines, and cause other infrastructure failures.²⁸
- **Wider Range of Temperatures:**

²³ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

²⁴ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

²⁵ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

²⁶ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

²⁷ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

²⁸ [North Carolina Hazard Analysis \(2019\)](#)

- Increases in temperature and higher frequency, duration, and intensity of heat waves create an additional burden on keeping equipment cool in exchanges and base stations, resulting in increased failure rates.²⁹
- Increases in mean temperature may increase the operating temperature of network equipment, leading to malfunction or premature failure if it surpasses design limits.
- Increases in temperature can stress telecommunications equipment and infrastructure, reducing life span.³⁰
- Freezing temperatures cause ice buildup on cables and power lines. This can cause damage and breakage of cables and can cut power to residents and businesses for prolonged periods of time.³¹

Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and

Modern infrastructure development needs to consider the unprecedented complexity of disruptions caused by climate hazards. The N.C. Climate Risk Assessment and Resilience Plan, published in 2020, aims to address the impact of climate change³² on communities and infrastructure vulnerability. The plan is a collaborative effort of policymakers and stakeholders to address the underlying stressors of climate change and increase the resilience of North Carolina.

The N.C. Climate Resilience Plan is based on several guiding principles, which include acting quickly to mitigate the impacts of climate change, developing equitable solutions for all communities, investing in the prosperity of communities, and implementing best practices³³ that promote sustainable development. These principles help to ensure that the state's broadband infrastructure is designed and deployed in a way that minimizes vulnerability to climate change and other risks, ensuring long-term resilience and sustainability.

The state of North Carolina is actively focused on assessing risks, predicting extreme weather events, and improving responses to any such event.³⁴ The state also considers future climate conditions and resiliency in all current public investment decisions at the local and regional levels by ensuring that agencies and contractors are held accountable for their response to climate hazards.

Aging infrastructure is an underlying stressor of climate change in North Carolina, and thus, it is essential to integrate climate resiliency in agency operations, location disaster recovery programs, and long-term planning. This will ensure that infrastructure remains stable and

²⁹ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³⁰ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³¹ Ofcom. (2011). Climate Change Adaptation: Impact on our functions. A Response to the Secretary of state's Direction of 31 March 2010. London: Author. Retrieved August 5, 2014, from [Overview of climate change impacts](#)

³² [NC Climate Risk Assessment and Resilience Plan | NC DEQ](#)

³³ [2020-Climate-Risk-Assessment-and-Resilience-Plan.pdf](#)

³⁴ [Sandy_rev_v05 \(iscram.org\)](#)

resilient in the face of climate-related hazards that can have a severe impact on communities and the state's economy.

The following are the key areas of focus for the division to enable the deployment of resilient broadband infrastructure:

- a. Collaborating with local governments to build resilience by instituting new policies and regulations and properly allocating resources to ensure that the deployment of broadband infrastructure is done in a manner that is resilient to climate hazards.
- b. Long-term master planning to determine cost-effective ways of addressing, maintaining, and operating resilient broadband infrastructure. Such planning can help identify innovative and cost-efficient solutions for building and maintaining resilient broadband infrastructure.
- c. Creating new and more strategically located facilities to mitigate the impact of natural disasters on broadband infrastructure. Doing so would enable communities to recover faster and minimize disruptions caused by climate hazards.
- d. Training stakeholders on mitigation plans for climate risks and preparedness measures, which would ensure that the personnel responsible for implementing and maintaining broadband infrastructure are aware of the risks and know how to act in the event of a climate-related disaster.

Mitigation Measures for BEAD Program Infrastructure

The division will encourage subgrantees to propose hardened and resilient designs that will withstand damage and deterioration from climate threats. Additionally, subgrantees can develop design and construction elements to harden or provide redundancy to critical components such as power and electrical elements that may be susceptible to water infiltration or damage. To promote the best infrastructure, some of the mitigation measures described below will be strongly encouraged for subgrantees to include, while others will be required through scoring.

Resilient Design: In counties with identified elevated risk, subgrantees are encouraged to deploy resilient infrastructure that is less vulnerable to disaster damage. Examples of this strategy include elevating structures, employing wet and dry flood-proofing to improve flood damage resistance, deploying buried infrastructure, using wind bracing to improve structural wind resistance, and adding lightning protection to towers. Ongoing inspections of infrastructure before expected periods of harsher weather are encouraged to determine any necessary additions or restructuring. To further promote resilient infrastructure design, the division will incentivize its subgrantees to plan resilient designs to ensure the longevity and quality of service by including resiliency in its scoring criteria. Applicants will be scored on their plans for including network or power source redundancies, plans for retrofitting or hardening, and their use of buried fiber cables (especially in areas of identified elevated risk). Additionally, the division will encourage all subgrantee applicants to apply the following infrastructure resiliency and climate readiness measures:

- 1. Use of established plans and processes to deal with extreme weather-related risks:** The division will encourage its subgrantees to utilize the established climate hazard identifications and processes detailed in the N.C. Hazard Mitigation Plan (2019)³⁵

³⁵ <https://www.ncdps.gov/20230125-2023-nc-shmp-final-publicpdf/open>

to prepare for and actively deal with extreme weather-related events during deployment. The division also encourages subgrantees to include how this plan and processes may be included in their description of risks and mitigation efforts in their subgrant applications. Subgrantees may also describe how they plan to use their own existing plans and processes related to addressing climate and weather-related risks for broadband infrastructure.

- 2. The speed of restoration of service in the case of an outage:** Subgrantee applicants should also include planned speeds of restoring service in case of an outage in their planned network design resiliency. Additionally, performance metrics related to speed of restoration will be defined in subgrant agreements. Broadband connection may be imperative during these times for contacting emergency services and reaching other necessary resources.
- 3. System Capacity, Redundancy, and Back-Up Features:** Subgrantees are encouraged to build and maintain critical infrastructure in areas of elevated risk that includes redundancy and additional hardening/resiliency. The design of broadband infrastructure should include back-up power options for vital operations and should be able to accommodate the full extremes of weather, temperatures, and other climate hazards. Subgrantees should also plan for including additional in-home or onsite back-up power resources.
- 4. Retrofitting and Hardening:** The division is committed to advocating for broadband infrastructure that is resilient and sustainable, especially given North Carolina's susceptibility to a number of intense and damaging weather and extreme weather events. As such, the division will include in its scoring criteria a requirement for subgrantees to include in their network design how they will retrofit and harden new and existing infrastructure to meet or exceed industry standards.
- 5. Choosing the appropriate technology platform:** Given the large amount of expected precipitation and other extreme weather events that may impact above ground infrastructure, it is imperative that subgrantees consider which technology platform is best to withstand the identified climate threats. Appropriate technology platforms may include buried underground infrastructure as it is resilient to risks such as tornadoes, intense storms (including ice), severe winds, and the wearing and damaging impact of extreme heat and cold. As part of subgrantee analysis of their proposed project area, subgrantees should, using their expertise, determine the most suitable technology platform for their infrastructure. This decision should be based on the climate risks of the region and justify reliance on alternative siting of facilities. Further, this choice should be included in subgrantees detailed approach to resilient design.

Other subgrant considerations include North Carolina's incentive for climate consciousness. North Carolina procurement standards require agencies to give preference to products manufactured and services offered by facilities designated as clean corporate citizens (Part 14 of the National Resources and Environmental Protection Act). Further, the division will uphold the BEAD NOFO requirement for all subgrantees to determine whether a proposed project will occur in a floodplain.

Describe plans for periodically repeating this process over the life of the Program to ensure that evolving risks are understood, characterized, and addressed, and that the most up-to-date tools and information resources are utilized.

Climate change is leading to several hazards, and the state of North Carolina is implementing a mitigation strategy to minimize the impacts of such events. The hazard mitigation plan is updated by the state every five years³⁶ to ensure it remains relevant, up-to-date, and effective.

The N.C. Department of Public Safety's N.C. Office of Recovery and Resiliency and N.C. Division of Emergency Management are responsible for keeping track of updates to the data available from national resources such as flood zone maps by FEMA, NOAA's Climate Explorer, FEMA's National Risk Index, and updated climate projections from the State Climate Office of North Carolina and the National Climate Assessment. Working collaboratively with the Office of Recovery and Resiliency and Emergency Management will enable the division to identify new risk areas and update the mitigation and climate resiliency plan accordingly to ensure infrastructure resilience plans remain relevant and effective.

By regularly monitoring and updating the hazard mitigation plan, the division can continue to refine its approach to climate resilience and mitigate the risks associated with climate change effectively for implementation of the BEAD program. Doing so will help to ensure that the state's broadband infrastructure remains reliable and resilient, even in the face of increasingly frequent and severe climate hazards.

³⁶ [Hazard Mitigation Plan Input | NC DPS](#)

Low-Cost Broadband Service Option (Requirement 16)

Describe the low-cost broadband service option(s) that must be offered by subgrantees as selected by the Eligible Entity, including why the outlined option(s) best services the needs of residents within the Eligible Entity's jurisdiction. At a minimum, this response must include a definition of low-cost broadband service option that clearly addresses the following, as outlined on page 67 of the BEAD NOFO:

- a. All recurring charges to the subscriber, as well as any non-recurring costs or fees to the subscriber (e.g., service initiation costs);**
- b. The plan's basic service characteristics (download and upload speeds, latency, any limits on usage or availability, and any material network management practices);**
- c. Whether a subscriber may use any Affordable Connectivity Benefit subsidy toward the plan's rate; and**
- d. Any provisions regarding the subscriber's ability to upgrade to any new low-cost service plans offering more advantageous technical specifications.**

For all BEAD funded programs (GREAT, CAB and Stop-Gap Solutions), the division will require subgrantees to offer a low-cost service option available to all eligible households (based on Affordable Connectivity Program eligibility criteria) in the project areas for at least the length of time compliant with BEAD requirements as laid out by NTIA. Applications will be required to describe the details of the applicant's proposed low-cost plan and will be scored based on whether the low-cost plan includes all the following criteria (no points will be awarded if any of the following are not included):

1. The total price shall not exceed \$30 per month. As long as current Affordable Connectivity Program (ACP) tribal subsidies remain available, the total price on federally recognized tribal lands may be set at a rate not to exceed \$75 per month. These total prices must be inclusive of all associated taxes, fees, and equipment charges billed to the consumer (although the individual charges for these items may be reflected as separate line items on a customer's bill).
2. Total nonrecurring charges, including but not limited to installation, service order, and equipment fees, shall not exceed \$50.
3. Allows the end user to apply the ACP benefit subsidies to the service price.
4. Meets performance requirements as established by the BEAD program, with download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.
5. Provides typical latency measurements of no more than 100 milliseconds.
6. Is not subject to data caps, surcharges, or usage-based throttling, and is subject only to the same acceptable use policies to which subscribers to all other broadband internet access service plans offered to home subscribers by the subgrantee must adhere.
7. In the event the subgrantee later offers a low-cost plan with higher speeds downstream and/or upstream, permits Eligible Subscribers that are subscribed to a low-cost broadband service option to upgrade to the new low-cost offering without a non-recurring charge or penalty.

The division based the maximum price for a low-cost broadband service offering in part on the \$30 monthly price many providers currently offer in conjunction with their participation in the

FCC's ACP. This decision was also informed by results from a division state-wide survey showing that 25% (212 out of 833) of low-income respondents consider the highest affordable rate for broadband service to be no more than \$30 a month.

Subgrantees are required to participate in the FCC's ACP and ensure that prospective customers are aware of ACP availability for the low-cost service option. Subgrantees are required to participate in any successor broadband subsidy program if the ACP is not, at any time, renewed. Barring a successor program, subgrantees will be required to continue offering the low-cost service option to, at a minimum, customers who meet the ACP eligibility criteria. In this case, the subgrantee would assume responsibility for determining eligibility but could avoid that administrative burden by making the low-cost option available to all potential customers rather than just those who would meet the ACP eligibility criteria.

The division strongly encourages that a subgrantee's low-cost broadband service option be made available to all eligible prospective customers across the subgrantee's entire North Carolina service territory; however, this service option must at least be available to locations within the awarded project areas under the BEAD program.

At a minimum, the division will consider updating minimum pricing requirements and other conditions of the low-cost service option at least twice within the next ten years based on changes in economic and market conditions. Public comments will be solicited at those times.

Certify that all subgrantees will be required to participate in the Affordable Connectivity Program or any successor program.

The division certifies that all subgrantees will be required to participate in the Affordable Connectivity Program or any successor program.

Middle-Class Affordability Plans (Requirement 20)

Describe a middle-class affordability plan that details how high-quality broadband services will be made available to all middle-class families in the BEAD-funded network's service area at reasonable prices. This response must clearly provide a reasonable explanation of how high-quality broadband services will be made available to all middle-class families in the BEAD-funded network's service area at reasonable prices.

The BEAD NOFO encourages eligible enterprises to establish a proposal that not only targets broadband infrastructure investment and low-cost service options but also contemplates methods to guarantee that every user can access high-speed internet that is reasonably priced.

The division acknowledges the importance of implementing a comprehensive affordability strategy that can benefit the maximum number of North Carolina residents. A multifaceted approach centered on the specific needs and opportunities available in North Carolina will enable the division to accomplish this objective. The division anticipates that it may entail collaboration with public and private stakeholders to harness existing resources, review alternative business models, and identify funding sources that promote digital equity initiatives geared towards underserved communities. The division remains committed to developing a comprehensive affordability strategy that ensures all North Carolina residents have access to affordable and reliable high-speed internet, which is critical to the state's long-term economic growth and prosperity.

The division acknowledges the significance of modeling plans and policies based on best practices that align with households in North Carolina. Though the NTIA does not specify required affordability levels, especially for middle-class households, numerous groups endeavored to provide guidance and data to help decision-makers measure affordability. The division pledges to utilize this data and guidance while addressing broadband affordability in North Carolina. Staff will scrutinize the state's present affordability setting, evaluating factors such as service prices, usage patterns, and income distribution, among others. With this data-driven method, the division can develop policies and programs that sufficiently address the needs of North Carolina residents.

1. In 2016, the Federal Communications Commission (FCC) defined a benchmark for reasonable rates for residential broadband service as "2% of monthly disposable household income³⁷." The FCC further describes the 2% threshold as a "clear yardstick for charting changes, not as an inherently meaningful level."
2. In 2023, Pew Charitable Trusts (Pew) examined affordability by geographic region, assuming middle-class household income was between \$40,000 and \$150,000 nationally. With that standard, the nationwide median affordability standard is \$93.21/month³⁸. The division recognizes that the median income varies across the state and reviewed county specific data related to this research.

³⁷ <https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf>

³⁸ <https://www.pewtrusts.org/en/research-and-analysis/articles/2023/08/30/is-broadband-affordable-for-middle-class-families>

3. BroadbandNow research provides broadband pricing, collecting data from the FCC, Census Bureau, and directly from internet service providers. The data provides some visibility into provider broadband pricing and is available for download³⁹.

The median household with an income exceeding \$60,500 per annum in North Carolina⁴⁰ spends around \$95 per month on broadband⁴¹, equating to less than 2% of their income in 2021. Although publicly available broadband pricing data in North Carolina are insufficient, the primary affordability challenge aligns with the goal of increasing participation rates in the ACP and Lifeline program to ensure broadband's affordability to all North Carolina residents – and ensuring continued funding exists to maintain the ACP as a federal benefit.

The division seeks to examine pricing practices continually and endeavor to influence them to avoid situations where broadband service prices exceed affordability levels, regardless of whether ACP is available and for which households affordability is being considered. The division acknowledges potential affordability challenges for non-ACP eligible households where the lowest-priced broadband service may be more than 2% of their income. Similarly, ACP-eligible households may surpass the 2% income threshold after accounting for many out-of-pocket costs. The division will evaluate and monitor affordability problems regarding broadband pricing regularly to ensure that affordable high-speed internet is accessible to all North Carolina residents.

Middle-Class Affordability Planning Components

The division plans to leverage a multi-pronged approach. Each component is described in more detail below.

- The division will require BEAD subgrantees to provide progress reports of their BEAD implementation. This approach will involve analyzing progress and ensuring it fulfills objectives while consistently enhancing the procedure through information collection, stakeholder feedback, and industry trends. Among the reporting requirements with which BEAD subgrantees must comply is the disclosure of their broadband pricing options (inclusive of fees and other charges) at full price, excluding discounts. This requirement will promote transparency in pricing, which is critical to ensuring that broadband is affordable and accessible to all North Carolina residents.

Furthermore, the division will seek reporting mechanisms and data collection alternatives to compile broadband pricing data from providers beyond BEAD subgrantees, ultimately enhancing transparency in broadband pricing throughout North Carolina. The proposed data will align with the information anticipated for collection through the FCC's forthcoming broadband consumer labels known as "nutrition labels." Even though these labels are not yet available, they may become an essential resource for consumers, by providing substantial information to support informed decisions and protect against concealed fees. By leveraging the potential of these labels and gathering additional data, the division aims to

³⁹ <https://broadbandnow.com/research/data>

⁴⁰ <https://www.incomebyzipcode.com/northcarolina#:~:text=The%20following%20data%20are%20the,Per%20Capita%20Income%3A%20%2434%2C209.>

⁴¹ <https://www.inmyarea.com/internet/north-carolina>

gain a comprehensive understanding of the affordability challenges of broadband services in North Carolina, informing strategies to enhance digital equity across the state.

- The division's scoring rubric rewards affordable broadband pricing besides a low-cost option. Affordability is the most critical component of the scoring rubric, after minimal BEAD program expenditure. The scoring rubric incentivizes and acknowledges applicants that pledge to offer gigabit symmetric service (for Priority Broadband Projects) or 100/20 Mbps service (for Non-Priority Broadband Projects) throughout the BEAD program's period. The division will develop contracts and monitor performance, ensuring that BEAD subgrantees honor these commitments.

For middle-class households that do not qualify for the low-cost option but still struggle with income constraints, the division will examine the feasibility of rewarding applicants who provide the low-cost option to all subscribers rather than only income eligible subscribers, thus removing the means test. By eliminating the means test, these households can take advantage of an affordable broadband program that accommodates as many households as possible. The division will offer counties data available for their county regarding middle-class affordability to inform the priorities they establish to meet their counties specific needs for the Completing Access to Broadband program project proposal evaluation process.

Along with planning for the BEAD program, the division continues developing a Digital Equity Plan, which will expand on strategies for promoting broadband affordability.

Use of 20% of Funding (Requirement 17)

Describe the Eligible Entity's planned use of any funds being requested, which must address the following:

- a. If the Eligible Entity does not wish to request funds during the Initial Proposal round, it must indicate no funding requested and provide the rationale for not requesting funds.**
- b. If the Eligible Entity is requesting less than or equal to 20% of funding allocation during the Initial Proposal round, it must detail the amount of funding requested for use upon approval of the Initial Proposal, the intended use of funds, and how the proposed use of funds achieves the statutory objective of serving all unserved / underserved locations.**
- c. If the Eligible Entity is requesting more than 20% (up to 100%) of funding allocation during the Initial Proposal round, it must detail the amount of funding requested for use upon approval of the Initial Proposal, the intended use of funds, how the proposed use of funds achieves the statutory objective of serving all unserved / underserved locations, and provide rationale for requesting funds greater than 20% of the funding allocation.**

North Carolina requests 100% of the BEAD Award upon approval of the Final Proposal and the first 20% upon approval of the Initial Proposal. Funding will be utilized to support the challenge process, pre-qualification process, subgrantee selection, and funding awarded last-mile

deployment projects. Funding will be utilized for non-deployment projects once we are confident that all unserved and underserved locations in the state will be served.

Enter the amount of the Initial Proposal Funding Request. If not requesting Initial Proposal funds, enter '\$0.00.'

BEAD Award: \$1,532,999,481.15

Certify that the Eligible Entity will adhere to BEAD Program requirements regarding Initial Proposal funds usage. If the Eligible Entity is not requesting funds in the Initial Proposal round and will not submit the Initial Proposal Funding Request, note "Not applicable."

YES

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Eligible Entity Regulatory Approach (Requirement 18)

Text Box:

- a. **Disclose whether the Eligible Entity will waive all laws of the Eligible Entity concerning broadband, utility services, or similar subjects, whether they predate or postdate enactment of the Infrastructure Act that either (a) preclude certain public sector providers from participation in the subgrant competition or (b) impose specific requirements on public sector entities, such as limitations on the sources of financing, the required imputation of costs not actually incurred by the public sector entity, or restrictions on the service a public sector entity can offer.**
- b. **If the Eligible Entity will not waive all such laws for BEAD Program project selection purposes, identify those that it will not waive (using the Excel attachment) and their date of enactment and describe how they will be applied in connection with the competition for subgrants. If there are no applicable laws, note such.**

In some states receiving federal funds, broadband infrastructure will be built, owned, and operated by local or state governments. In North Carolina however, the legislature has determined that private internet service providers and cooperative organizations will build, own, and manage the network infrastructure and provide ongoing broadband service to consumers. N.C.G.S. § 143B-1373(a)(7) (state broadband grant program: defining an eligible recipient as “private providers of broadband services, including cooperatively organized entities”); N.C.G.S. § 143B-1373(g)(1)(amended by S.L. 2021-180 Section 38.4)(stating that “nothing in this subdivision shall be deemed to authorize a county to provide broadband service”); N.C.G.S. 153A-274-275 (setting out counties’ authority to operate public enterprises, which omits broadband service); N.C.G.S. § 16A-340.2 (effectively prohibiting cities from providing broadband service to new customers as of Jan. 1, 2011); and N.C.G.S. § 66-58 (the North Carolina Umstead Act, prohibiting state agencies from providing services that are typically rendered by private enterprises). Several municipalities were grandfathered and allowed to expand service within certain geographical restrictions. (N.C.G.S. §160A-340)

Current N.C. law requires BEAD funding to be distributed to subgrantees through three existing infrastructure grant programs: 50% through the Growing Rural Economies with Access to Technology (GREAT) program, 40% through the Completing Access to Broadband (CAB) program, and 10% through the Stop-Gap Solutions program. The state’s existing broadband grant programs, by definition, allow private providers of broadband service to participate and receive funding.

An act of the legislature is needed to waive the provisions stated above. The division is working with legislative leaders to make them aware of the BEAD NOFO requirements.

Optional Attachment: As a required attachment only if the Eligible Entity will not waive laws for BEAD Program project selection purposes, provide a list of the laws that the Eligible Entity will not waive for BEAD Program project selection purposes, using the Eligible Entity Regulatory Approach template provided.

Law Title	Publicly Accessible Link	Description	Date Enacted	How will the law be applied in connection to competition for the subgrants?
Growing Rural Economies with Access to Technology Grant (GREAT)	N.C.G.S. § 143B-1373(a)(7)	State broadband grant program: defining an eligible recipient as “private providers of broadband services, including cooperatively organized entities.”	2018	Current state law requires 50% of BEAD funding to be distributed to subgrantees through GREAT.
Completing Access to Broadband Grant (CAB)	N.C.G.S. § 143B-1373(g)(1)	Provides grants to counties to partner with private providers to provide broadband service to unserved areas.	2021	Current state law requires 40% of BEAD funding be distributed to subgrantees through CAB and provides that “nothing in this subdivision shall be deemed to authorize a county to provide broadband service”.
Public Enterprise	N.C.G.S. 153A-274-275	Authorizes counties’ authority to operate public enterprises, which omits broadband service.	1992	Counties can be grant recipients in partnership with private ISPs but are prohibited from providing broadband service.
Provision of Communications Service by Cities.	N.C.G.S. § 16A-340.2	City-owned communications service provider requirements.	2011	Cities must meet certain requirements before provisioning broadband service.
Umstead Act	N.C.G.S. § 66-58	Prohibits governmental units and state agencies from providing services that are typically rendered by private enterprises.	1929	Local governments and state agencies are not authorized to provide broadband service.

Certification of Compliance with BEAD Requirements (Requirement 19)

Certify the Eligible Entity's intent to comply with all applicable requirements of the BEAD Program, including the reporting requirements.

Yes, the division will comply with all applicable requirements and reporting requirements of the BEAD program.

Describe subgrantee accountability procedures, including how the Eligible Entity will, at a minimum, employ the following practices outlined on page 51 of the BEAD NOFO:

- a. Distribution of funding to subgrantees for, at a minimum, all deployment projects on a reimbursable basis (which would allow the Eligible Entity to withhold funds if the subgrantee fails to take the actions the funds are meant to subsidize);**
- b. The inclusion of claw back provisions (i.e., provisions allowing recoupment of funds previously disbursed) in agreements between the Eligible Entity and any subgrantee;**
- c. Timely subgrantee reporting mandates; and**
- d. Robust subgrantee monitoring practices.**

Grant funds will be available to subgrantees after the effective date of the contract and can be requested by submitting a reimbursement request to the division. Reimbursement requests may be submitted for all eligible project costs incurred during construction and paid for prior to request. Additionally, reimbursement requests shall be submitted in accordance with the respective Project Milestones and grant effective dates per the subgrantee's grant agreement. If the reimbursement request is not consistent with achievement of Project Milestone deadlines, the division reserves the right to take appropriate action in accordance with 09 N.C.A.C. 03M .0800 which includes, but is not limited to, withholding funds until all corrective actions have been implemented. If no further corrective actions are taken, the subgrantee could be subject to termination of their contract and claw back of previously distributed funds, as well as disbarment from any future contracts.

To receive grant funds, the subgrantee will be required to submit the following documentation:

- 1) Formal Payment Request providing a summary of eligible project costs incurred for which reimbursement is being requested,
- 2) Evidence that these costs have actually been incurred and
- 3) Evidence that these costs have been paid in full.

If, during the contract effective period, the subgrantee does not meet the identified Project Milestones and or program requirements, the division may take the proper corrective actions, including, but not limited to, request for remediation, suspension of payments and recoupment of programs funds. The division will provide the subgrantee written notice of the remediation needed. If the Grantee has not taken the appropriate remediation within a specified timeframe, the division may terminate the contract and/or claw back previously distributed funds. This may also result in the division reporting possible violations of criminal statutes involving misuse of state and federal funds to the proper authorities.

Progress reports will be required at designated times and upon request by the division. They are intended to provide information regarding the progress, obligations, and expenditures that occurred to date. The main purpose of these reports is to ensure that subgrantees, as well as the division, are aware of the programmatic and financial status of the project and that sufficient financial resources are on hand to complete the project's activities.

Progress reports include:

- Quarterly Construction Period Progress Reports: A quarterly report summarizing the status of the project, any project updates, project expenditures, locations served, as well as notice of any issue that is likely to jeopardize project milestones.
- Final Report for End of Construction Period: The final report summarizing information regarding service provisions, speeds available, data caps and address data for locations served.
- Annual Progress Report for Maintenance Period: An annual report verifying that data caps, speed and locations are still being served by the subgrantee after the construction is complete.

In addition to progress reports, the division will monitor projects through the use of compliance reviews. These reviews will ensure the project complies with applicable state and federal guidance and regulations.

Compliance reviews include:

- Risk Assessment: The division will perform a risk assessment on all subgrantees on a periodic basis to determine the risk of noncompliance. Each subgrantee will be subject to a risk level based on the predetermined criteria set forth by the division.
- Site Visits: The division will conduct at least one site visit per project during the span of the construction period with the purpose of verifying and documenting project construction and broadband availability. Additional site visits may be scheduled according to the division's resources and any concerns identified during the monitoring process for the construction and maintenance periods.
- Internal Compliance Review:
 - The division will also perform ongoing desk review of all project expenditures incurred during the construction phase. This desk review incorporates a technical review, financial review, and compliance review of all expenses. Review will include the subgrantee's pricing of materials, labor expenses, and associated internal management and control processes if applicable.
 - It should be noted that the division relies on NTIA to obtain exemptions from Uniform Guidance Section 2 CFR 200, Subpart D related to Program Income, Cost Principles, Real Property and Procurement. As such, the division is not currently planning any monitoring of compliance with these rules.
- External Compliance Reviews: The division will review all required audit reports filed by the subgrantee to ensure that the subgrantee takes timely and appropriate action on deficiencies detected through audits.
- Post Construction Reviews
 - Participation in The Affordable Connectivity Program (ACP): During the maintenance period the division will annually verify subgrantees' participation in the ACP through the Federal Communication Commission (or any successor affordability plan).
 - Continued Availability of Affordability Plan for Low Income and Middle-Class

Service Offerings: During the maintenance period, the division will annually verify that subgrantees offer affordable high-speed plans to low-income and middle-class households.

- Maintenance and Repair of Network: The division will conduct an annual maintenance review after the construction period to verify BEAD funded areas maintain the required broadband access, speed, and availability. The division will also monitor the Federal Communication Commission data to ensure subgrantees are still providing adequate service to locations.

Certify that the Eligible Entity will account for and satisfy authorities relating to civil rights and nondiscrimination in the selection of subgrantees.

Yes

Certify that the Eligible Entity will ensure subgrantee compliance with the cybersecurity and supply chain risk management requirements on pages 70 - 71 of the BEAD NOFO to require prospective subgrantees to attest that:

Cybersecurity

- 1) The prospective subgrantee has a cybersecurity risk management plan (the plan) in place that is either: (a) operational, if the prospective subgrantee is providing service prior to the award of the grant; or (b) ready to be operationalized upon providing service, if the prospective subgrantee is not yet providing service prior to the grant award;
- 2) The plan reflects the latest version of the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity (currently Version 1.1) and the standards and controls set forth in Executive Order 14028 and specifies the security and privacy controls being implemented;
- 3) The plan will be reevaluated and updated on a periodic basis and as events warrant; and
- 4) The plan will be submitted to the Eligible Entity prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the Eligible Entity within 30 days.

Supply Chain Risk Management (SCRM)

- 1) The prospective subgrantee has a SCRM plan in place that is either: (a) operational, if the prospective subgrantee is already providing service at the time of the grant; or (b) ready to be operationalized, if the prospective subgrantee is not yet providing service at the time of grant award;
- 2) The plan is based upon the key practices discussed in the NIST publication NISTIR 8276, Key Practices in Cyber Supply Chain Risk Management: Observations from Industry and related SCRM guidance from NIST, including NIST 800-161, Cybersecurity Supply Chain Risk Management Practices for Systems and Organizations and specifies the supply chain risk management controls being implemented;

- 3) **The plan will be reevaluated and updated on a periodic basis and as events warrant; and**
- 4) **The plan will be submitted to the Eligible Entity prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the Eligible Entity within 30 days. The Eligible Entity must provide a subgrantee's plan to NTIA upon NTIA's request.**

Yes

ⁱ For as summary of those measures and their calculation, see U.S. Department of Labor, "WIOA Performance Indicators and Measures," accessed October 22, 2023, <https://www.dol.gov/agencies/eta/performance/performance-indicators>.

ⁱⁱ For a detailed discussion of the limits of WIOA performance measures, see Livia Lam, *A Design for Workforce Equity: Workforce Redesign for Quality Training and Employment: A Framing Paper* (Washington, DC: Center for American Progress, 2019), <https://www.americanprogress.org/article/design-workforce-equity/>.

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