

Broadband in North Carolina - An Update

**Wake County NC
Commissioners Meeting**

Jeffrey Brooks
NCBIO Infrastructure Solutions Section

August 21 2023



About | North Carolina Broadband Goals - 2025



Households with broadband internet access

98%



Households with broadband internet subscriptions

80%



Households with children with broadband internet subscriptions

100%



Adoption rates across racial subgroups

- Native American
- Black
- Hispanic/Latinx
- White

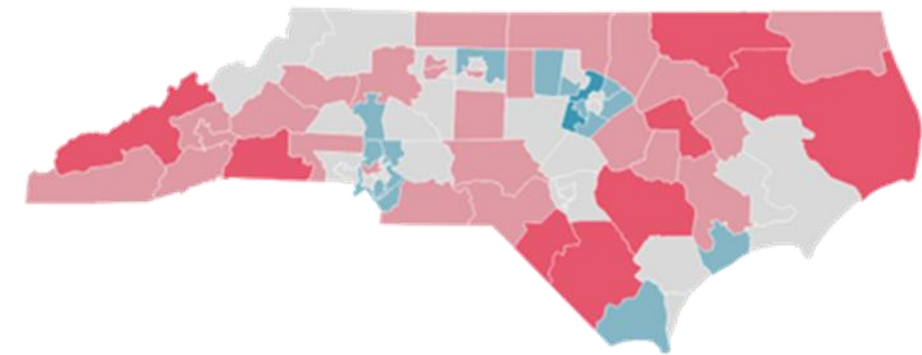
80%

80%

80%

80%

Percent of Households Without a High-Speed Internet Subscription (2019)¹

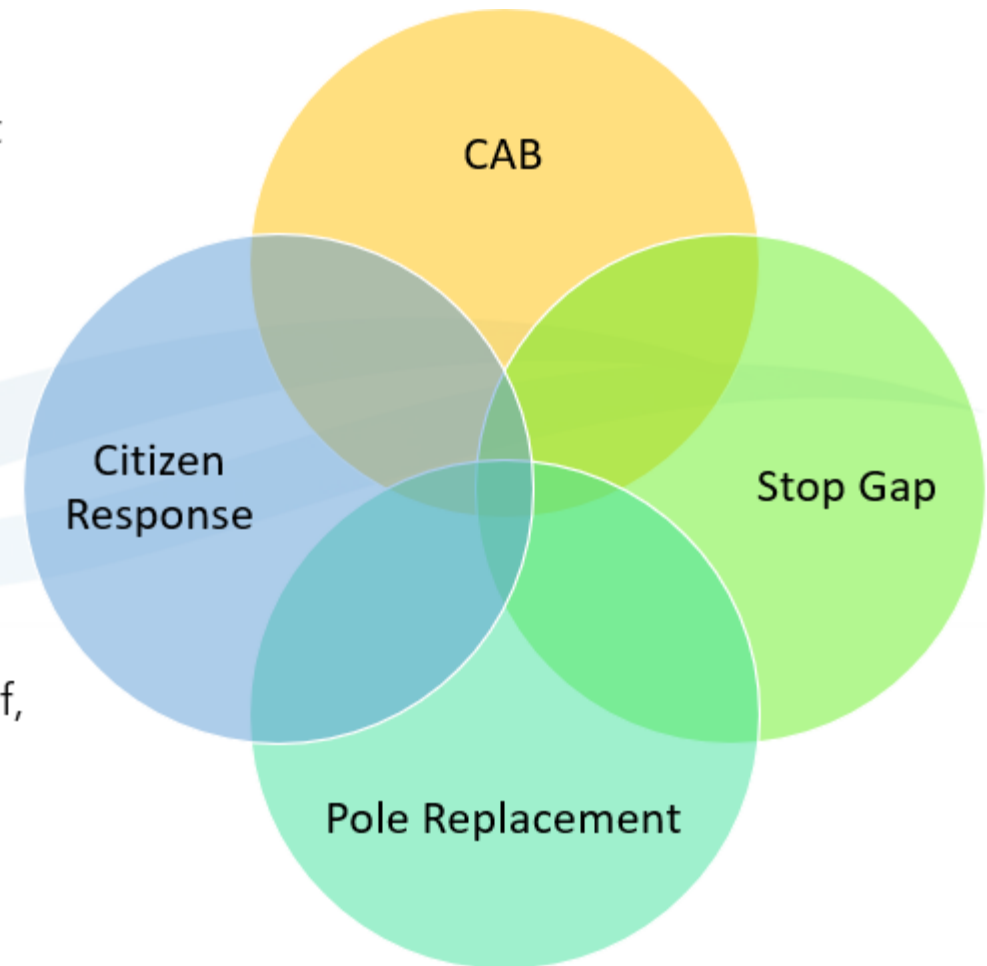


% of households



About | NC BIO Infrastructure Solutions Team

- Our team is responsible for the development and initialization of the CAB, Stop Gap and Pole Replacement programs in the North Carolina Broadband Office
- We provide support to the Legislative and Executive branches in responding to citizen and other inquiries
- We actively promote the work of the GREAT Grant and Office of Literacy & Digital Equity teams
- Our team represents a resource in North Carolina with a singular focus on direct engagement with, and support of, all 100 counties.
- We are engaged with Councils of Government, Cooperatives, Service Providers, Manufacturers and Community Groups



About | North Carolina Broadband Investment 2022-2024



INFRASTRUCTURE

\$971M

Ensure availability of internet service at speeds of at least 100/20 Mbps for more than 98% of North Carolina households.

\$380M

- GREAT Grant (\$350M American Rescue Plan Act; \$30 State CIF)

\$400M

- Completing Access to Broadband (CAB)

\$90M

- Stop Gap Solutions

\$100M

- Broadband Make Ready Accelerator (Pole Replacement Fund)

\$1M

- Broadband Mapping



AWARENESS AND DIGITAL LITERACY

\$50M

Improve awareness and enable all North Carolina citizens to realize the benefits of high-speed internet through digital literacy allowing access to the digital economy.



ADMINISTRATIVE

\$15M

Supplement existing North Carolina's capacity to support high-speed internet efforts.

- Local focus
 - ODEL team works with counties, municipalities, school districts, service providers and community groups.
- ODEL **solicits information** regarding programs, ideas and outreach activities that are proven to work.
- ODEL **shares feedback** from multiple locations and projects to help NC communities create viable legacy programs to support access to broadband.
- One area of focus is to ensure all eligible citizens are **informed** about the FCC's Affordable Connectivity Program.



- ODEL supports the creation of community-centric solutions and provides resources to **local** organizations to help create and scale digital literacy programs
- Projects are used to share best practices and show successful models of State and **local** partnerships
- Affordable Connectivity Program (ACP) enrollment in North Carolina is 690,170 as of May 2023 – we rank fourth in nationwide ACP enrollment percentage



Broadband Equity, Access & Deployment [BEAD] Funding | State

Funding

- North Carolina | estimated \$1.5B

Uses

- Infrastructure
 - GREAT
 - CAB
 - Stop Gap
- Digital Literacy Support
- Adoption Support

Timing

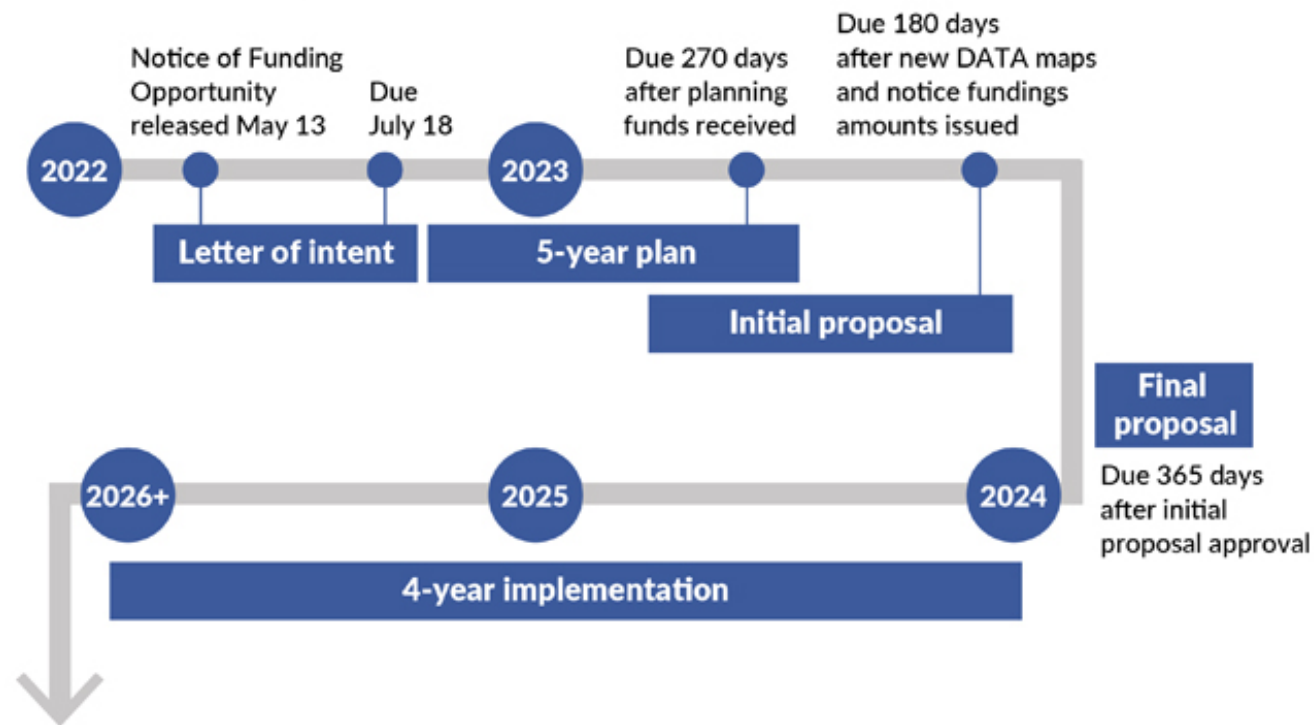
- Final plan submission 2023
- NTIA Review 2023-2024
- Awards announced 2024
- Funds availability late 2024-2029

[dates approximate and subject to change]

NTIA Expects BEAD Implementation to Take Roughly 4 Years
Estimated timeline for proposal development and funding allocations

ESTIMATED TIMELINE

Timeline approximate unless exact date specified



Availability | Broadband Funding - Federal

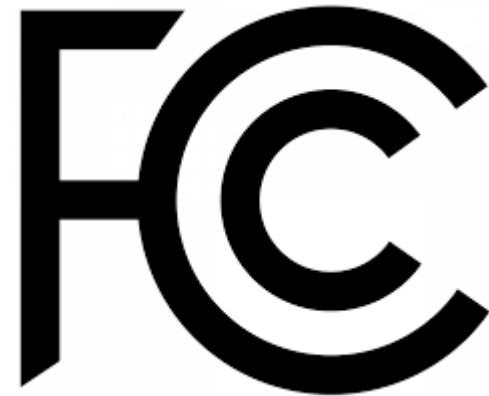
USDA Rural Utilities Service Reconnect

- Initiated 2019-20 | Annual availability ~ \$550M to \$650M
- Grant, Grant/Loan, Loan | Prior Year Maximums were \$25M grant,; \$25M loan
- Census Block Based
- Complex application process
- Grant matching funds requirement 25%
- Competitive



FCC Regional Digital Opportunity Fund (RDOF)

- Initiated 2021 | Total of \$16B allocated Phase 1 / \$4B Phase 2
- Grants resulting from Reverse auction | No Maximums
- Census block based
- Complex two step application process
- Matching funds represented by difference between cost and subsidy
- Construction period 72 months
- Subsidy period 120 months
- Competitive



Availability | Broadband Funding - New Programs

Completing Access to Broadband program - Fall 2023 - Winter 2024

- \$400M with max award of \$8M per county. Can have multiple projects in single county.
- Currently completing the CAB > GREAT award process
- Standard CAB Process
 - State procurement with county investment
 - Active engagement with county managers/commissioners in all 100 counties on programs, process, mapping
- CAB is two step process
 - Issue RFP in June 2023 to prequalify internet providers in each county - increased levels of due diligence
 - Define unserved/underserved scopes of work with initial counties beginning after GREAT grant awards
 - Develop standard RFR with specific focus on county requirements

Broadband Pole Replacement Program - Fall 2023

- Publish draft program guidance for public feedback in April
- Support for partial reimbursement for pole replacement for eligible RDOF projects

Line Extension / Stopgap - Winter 2023

- \$90M to address “hard to reach” locations
- Active engagement with counties, providers and citizen input

Programs | Broadband Qualification RFP - June - September 2023

- Required submission from Service Providers for Grant program participation in NC

Financial

- Overall financial summary
- Competence from a financial and cost operating perspective
- Standardized metrics for analysis and comparison

Operational

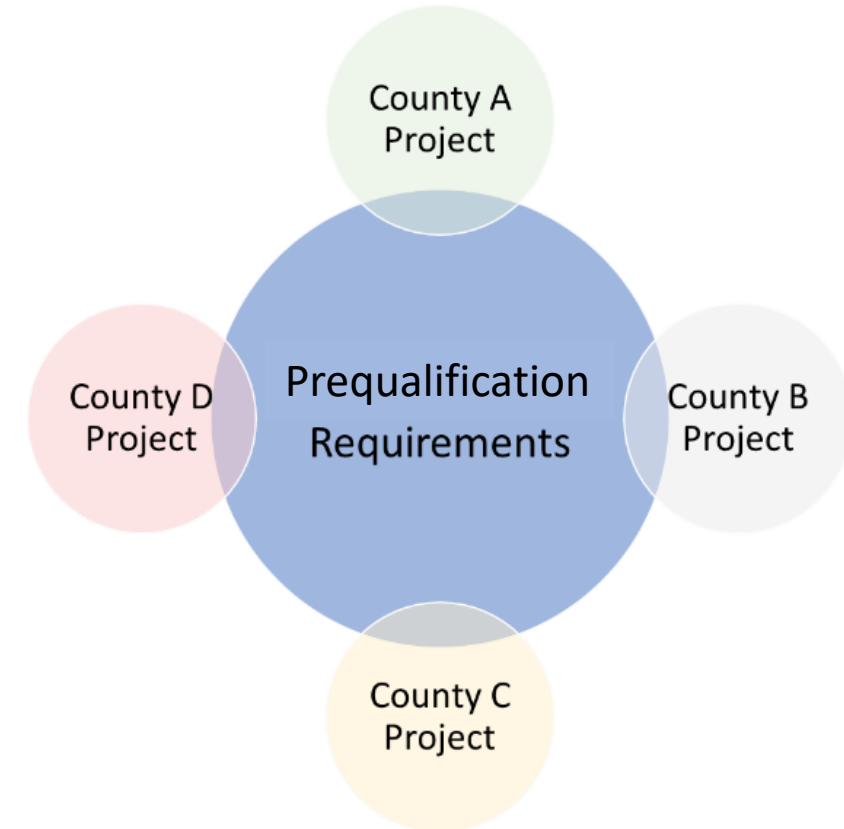
- Operational maturity re billing & operational aspects
- Protection of end user and operating data
- Capability to attract and retain sufficient resources

Technical

- Overall capability to design, develop and deploy network assets
- Documentation of repair processes for network and end users
- Documentation of network security processes

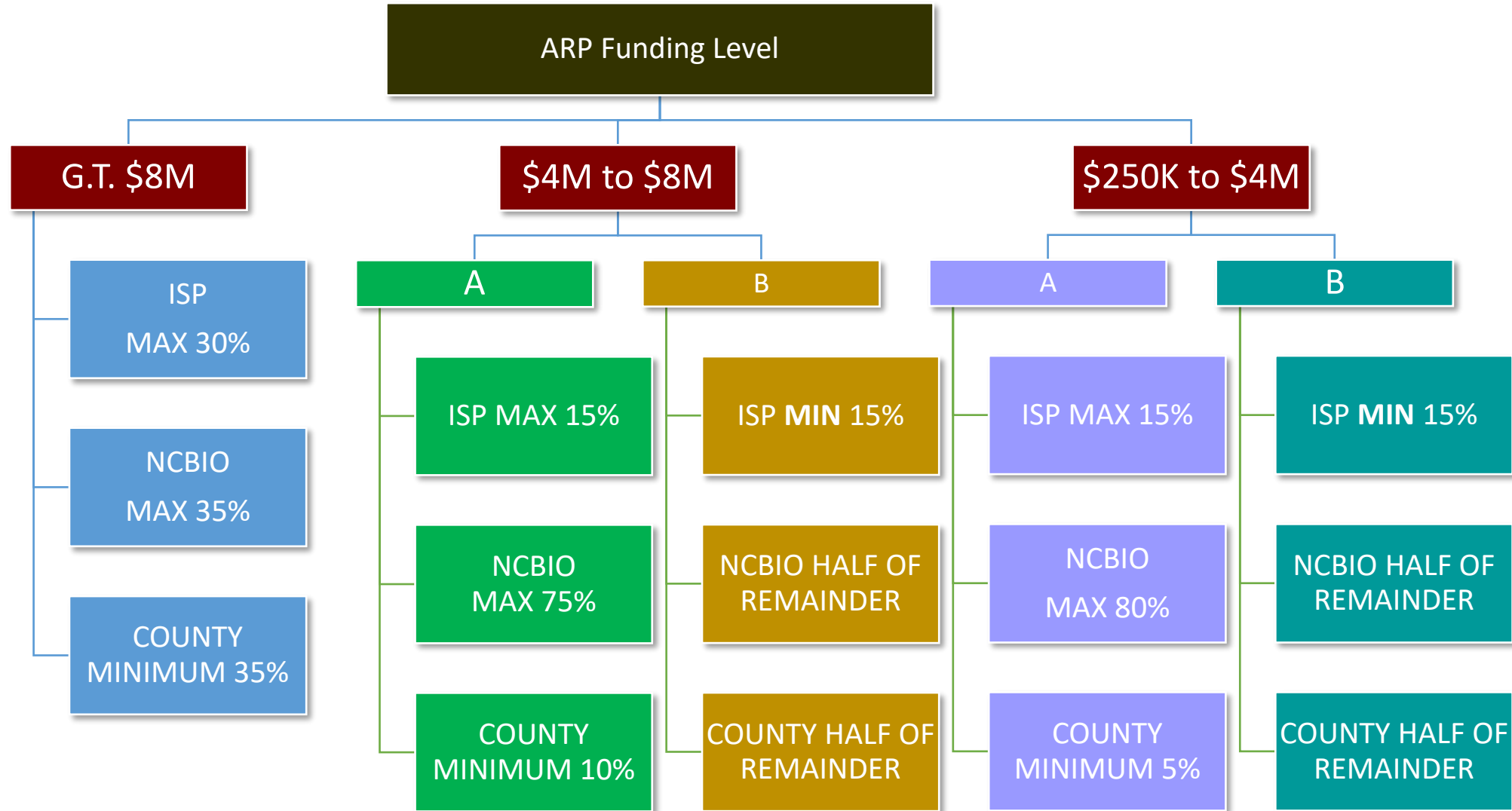
Programs | CAB Individual County RFR (Request for Response)

- Scope: \$400 M Infrastructure Program
- Individual County Request for Response (RFR)
 - Specifications focused on County requirements.
 - County input is the most critical component of RFR process
 - Competitively bid
- Current Sample weighting:
 - 30.0% County input (eligible areas, specific areas of focus et al)
 - 30.0% Technical (solution, project risk mitigation)
 - 20.0% Financial (budget, financial risk mitigation)
 - 7.5% Marketing (ACP and affordability)
 - 5.0% Throughput
 - 5.0% Overall project scope
 - 2.5% Provider requirements
- CAB > GREAT



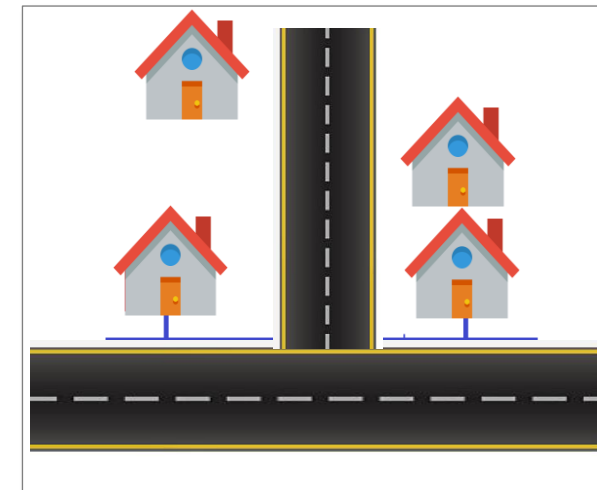
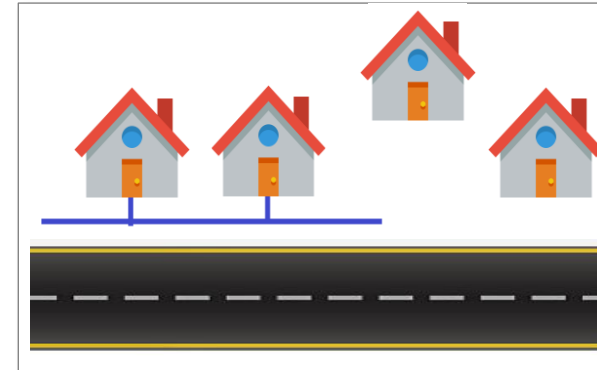
Programs | CAB Project Funding Tiers

- NC Maximum is \$8M per project effective January 1 2023
- County contributions can be ARP or General Fund



Programs | Stop Gap

- Scope: Stretching \$90M across NC to address certain last mile issues
- Current process June 2023:
 - Requesting county management & providers to create a list of known problems in each county
 - Submit suggestions/recommendations for problem areas to Infrastructure team
 - Consider Stop Gap vs. CAB vs. GREAT to maximize value of each
- Infrastructure team will review with service providers and counties
 - Review budget and proposed projects
 - With minimal leverage, how to maximize results!
- Will request County signoff per project



STOPGAP
PROGRAM

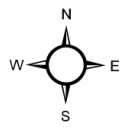
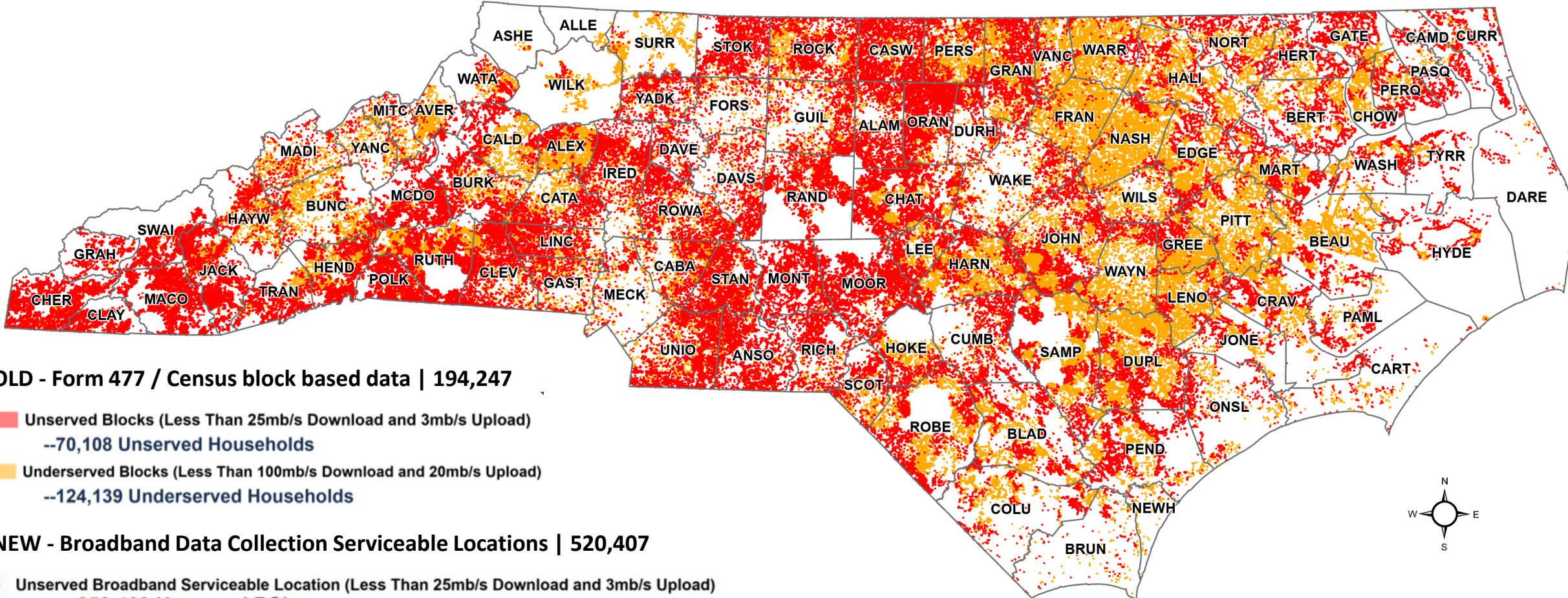
Programs | Broadband Pole Replacement

- Scope: \$100M oriented towards pole owners & service providers
- Aerial (pole mounted) Installation
 - Electric providers generally install 17-28 poles per mile
 - Telcos generally install 15-18 poles per mile
- Pole Issues
 - Decay / deterioration
 - Load
 - Height
 - Relocation
 - Ownership
- Generally identified by service providers, but also by engineering & outside plant reviews, pruning activities or make ready work
- Poles owned by IOU's are ineligible for reimbursement (Duke, Dominion, SCANA, etc.)



Mapping | Unserved and Underserved Locations

Map shows New FCC Broadband Data Collection Serviceable Location Fabric - June 2022



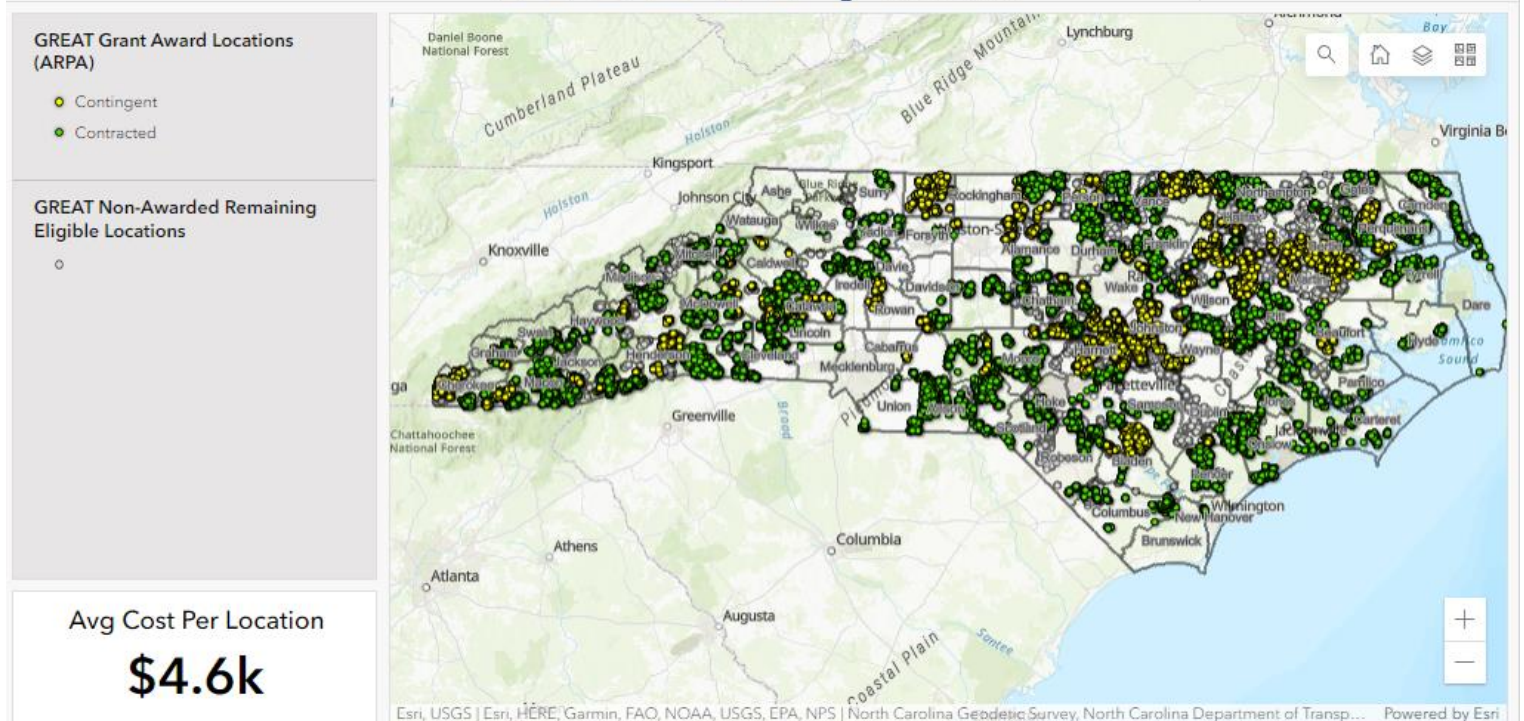
GREAT Grant Awards: \$380M Awarded in Five Rounds in 2022-23

- Rounds 1 – 5
 - 305 Applications
 - Total of \$380M in grants
- Currently
 - CAB > GREAT
 - 23 counties

NC GREAT Grants (ARPA)
(Award Locations as of 7-14 2023)



FILTER BY COUNTY:
ALL COUNTIES



Avg Cost Per Location
\$4.6k

Total Project Cost
\$529.7M

Total Grant Amount
\$347.9M

Total Match Amount
\$181.8M

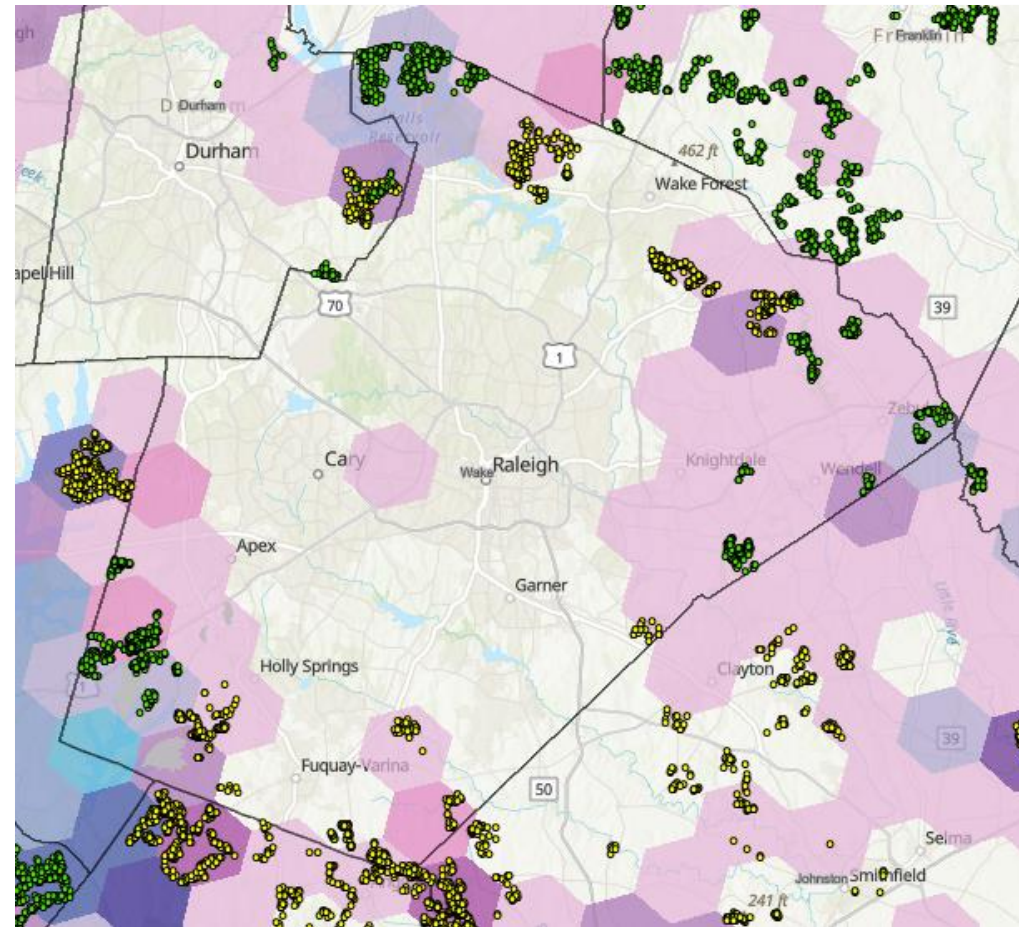
Total Awarded Locations
144,046

Households Served
139,599

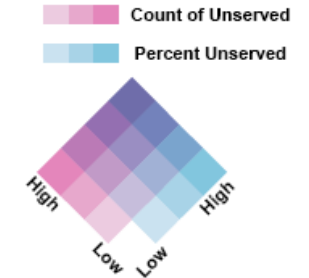
Businesses Served
4,447

Mapping | Wake County

- Most recent GREAT Grant awards
- Future grant programs will shift eligibility analysis **from** census blocks **to** individual addresses (Broadband Serviceable Locations or BSL)



- ▲ NC Broadband Survey - Unserved Responses
- GREAT Award Locations (ARPA Funded) - Contingent
- GREAT Award Locations (ARPA Funded) - Contracted
- GREAT Award Locations (State Funded)
- GREAT Award Areas (State Funded)
- ▨ Other Federal Grants



| | | | | | |
|------|-------------|-------------------|--------------------|-------------|-----------|
| Wake | Spectrum | 1,239 residential | 84 non-residential | \$3,587,823 | \$633,145 |
| Wake | Brightspeed | 1,112 residential | 5 non-residential | \$3,275,346 | \$578,002 |

North Carolina Resources

- **Take the survey.** Provide the State with real time information about a specific location.
 - <https://www.ncbroadband.gov/north-carolina-broadband-survey>
- **Visit the North Carolina One Map.** See where recent awards have been made.
 - <https://www.nconemap.gov/pages/broadband>
- **Update the FCC information.** If an address is represented incorrectly, tell the FCC.
 - <https://www.fcc.gov/BroadbandData/consumers>
- **Learn about the Affordable Connectivity Program.** Program to help families afford broadband.
 - <https://www.fcc.gov/acp>
- **Contact our Office.** Questions, concerns, issues – let us know. The State does not have regulatory / statutory authority with respect to broadband, but we speak the language and do represent a resource for citizens. Email: Jeffrey.brooks@nc.gov or via phone at 919.602.8080.

Internet Links:

[NC Broadband Home Page](#)

[GREAT Grant Applications by County](#)

[Take the NC Broadband Survey](#)

[NC Broadband Map Data](#)

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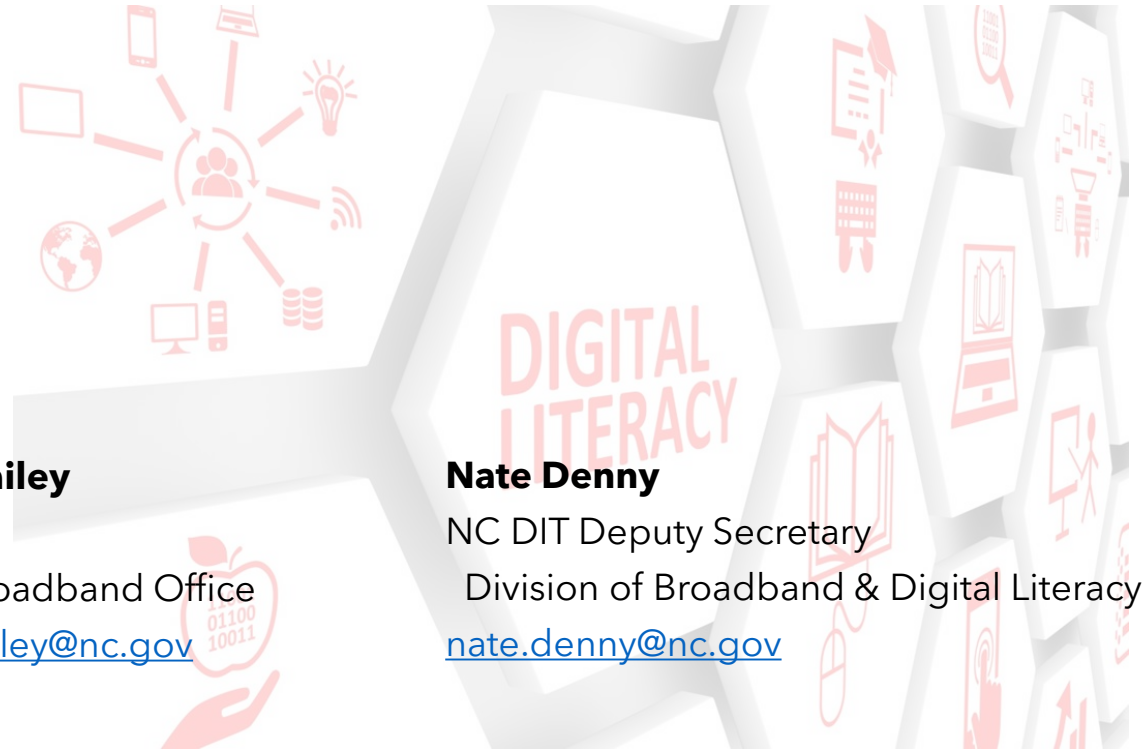
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