

# MAPPING AND BROADBAND

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BROADBAND INFRASTRUCTURE OFFICE

# DIVISION OF BROADBAND AND DIGITAL EQUITY

## It's Time to Close the Digital Divide in North Carolina

At least 1.1 million North Carolina households lack access to high-speed internet, cannot afford it or do not have the skills needed to take advantage of the digital economy. Gov. Roy Cooper has a plan to close the digital divide to achieve digital equity for all North Carolinians.



# MISSION - DIVISION OF BROADBAND & DIGITAL EQUITY

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- **Broadband Infrastructure Office**
- **Office of Digital Equity and Literacy**

Expanding  
broadband  
access across the  
state

Building a  
sustainable team  
to deliver digital  
equity to NC

Leveraging data  
to identify and  
understand  
community needs

Enabling more  
North Carolinians  
to afford high-  
speed internet

Increasing digital  
literacy among all  
North Carolinians

# NEARLY \$1 BILLION INVESTMENT PLAN (ARPA)



## 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 North Carolinians to realize the benefits of high-speed internet through digital literacy and upskilling aimed at accessing the digital economy.



## ADMINISTRATIVE

\$15M

Supplement existing state administrative capacity to support high-speed internet efforts.

# INFRASTRUCTURE INVESTMENT & JOBS ACT (IIJA)

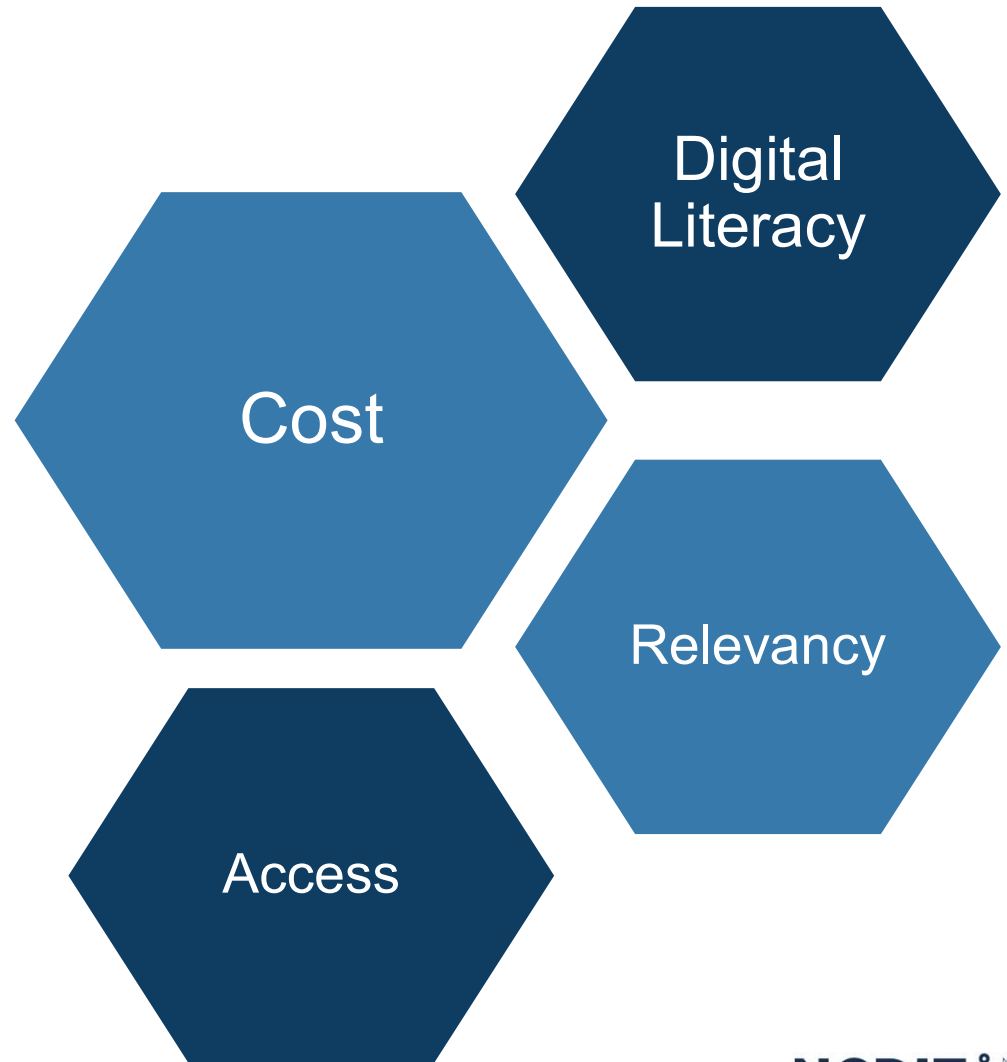
Program	Funding
<b>FCC Affordable Connectivity Program</b> <ul style="list-style-type: none"> <li>Transitioned from Emergency Broadband Benefit Program on Dec. 31</li> <li>Reduces subsidy from \$50 to \$30 per month for qualifying households</li> <li>Up to \$75 subsidy for households on Tribal lands</li> <li>One-time discount of up to \$100 for a laptop, tablet or desktop computer (with a co-payment of more than \$10 but less than \$50)</li> </ul>	\$14.2 billion
<b>**Broadband Equity, Access, and Deployment (BEAD) Program</b> <ul style="list-style-type: none"> <li>High-cost areas (\$4.245B), Formula grants (\$37.356B)</li> <li>Initial minimum allocation of \$100M per state or territory</li> <li>Must include affordability component; prohibits exclusion of municipal networks</li> </ul>	\$42.45 billion
<b>Enabling Middle Mile Broadband Infrastructure Program</b>	\$1 billion
<b>Tribal Broadband Connectivity Program</b>	\$2 billion
<b>**State Digital Equity Planning Grant Program</b>	\$60 million
<b>State Digital Equity Capacity Grant Program</b>	\$1.44 billion
<b>Digital Equity Competitive Grant Program</b>	\$1.25 billion

# Common Barriers to Broadband Deployment

Capital  
Expenditures  
(CAPX)

Population  
Density

# Common Barriers to Broadband Adoption



# GREAT GRANT PROGRAM (\$350M)

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<https://www.ncbroadband.gov/grants/great-grant-federal/great-grant-2021-2022>

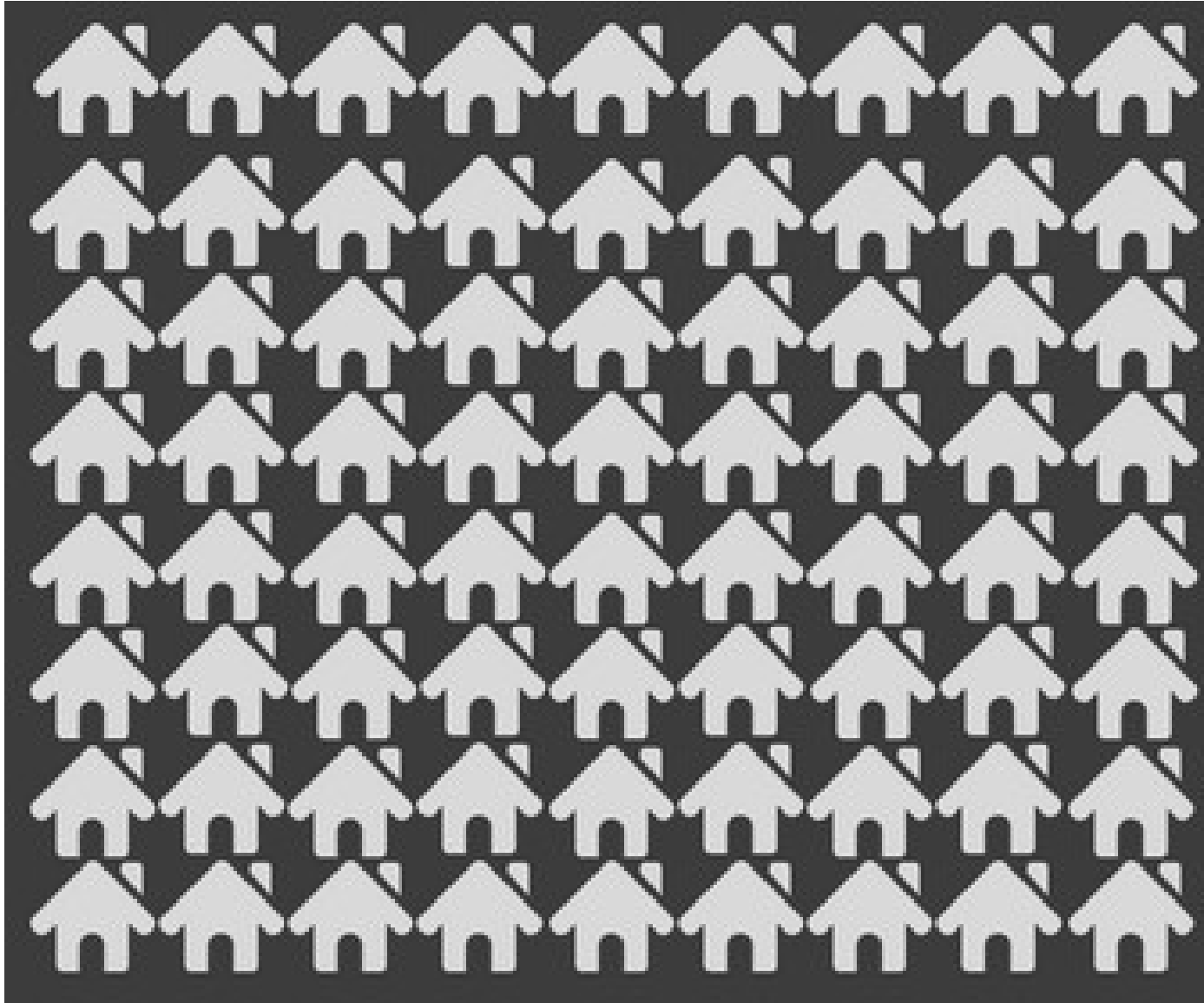
- Applicants/Recipients are broadband service providers
- Funds to build infrastructure to last-mile unserved locations (<25/3 Mbps)
- Specific definition of unserved area in the Guidance Document
- Maximum grant award is \$4 million
- No combination of awards shall exceed \$8 million in a single county per fiscal year

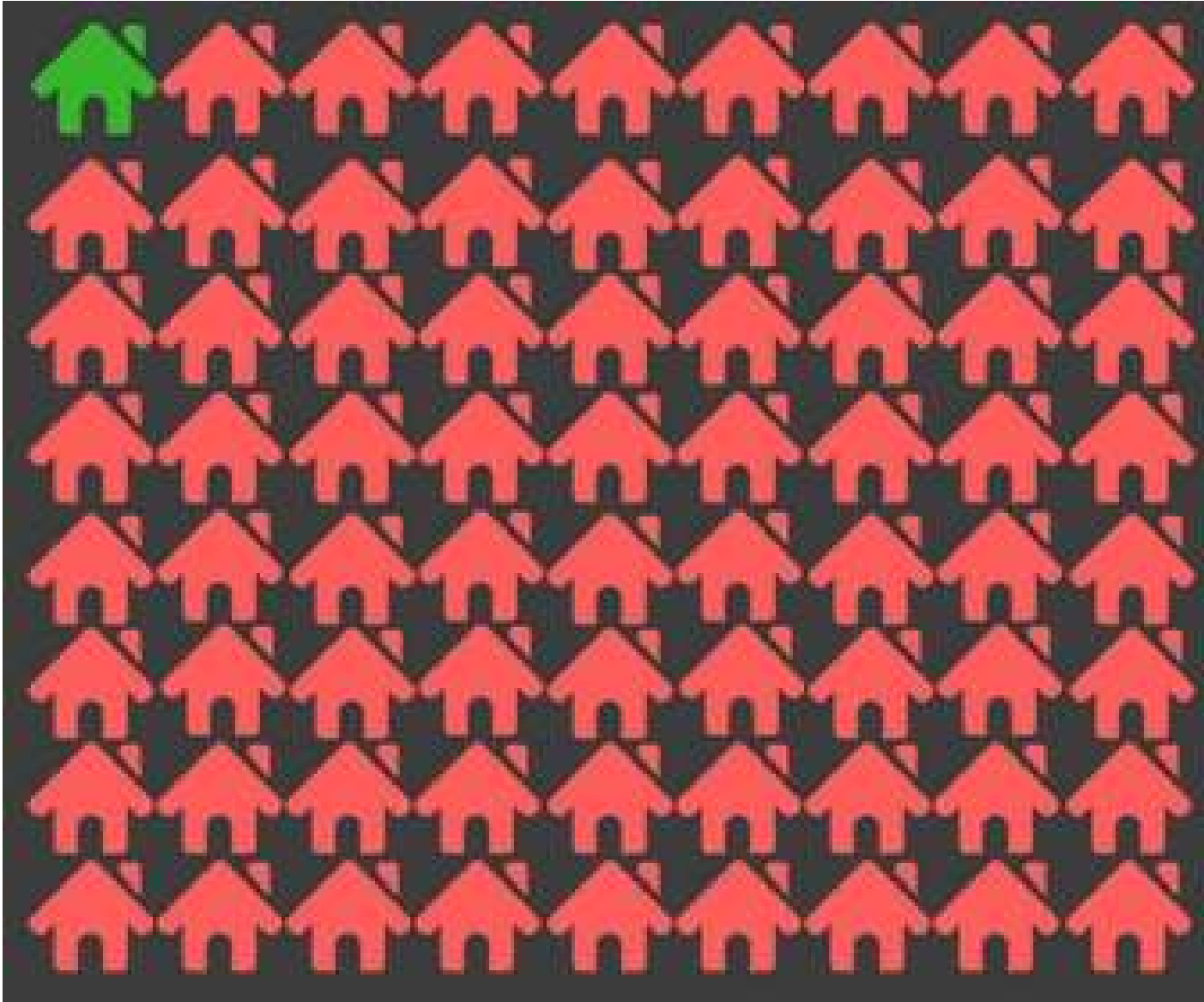


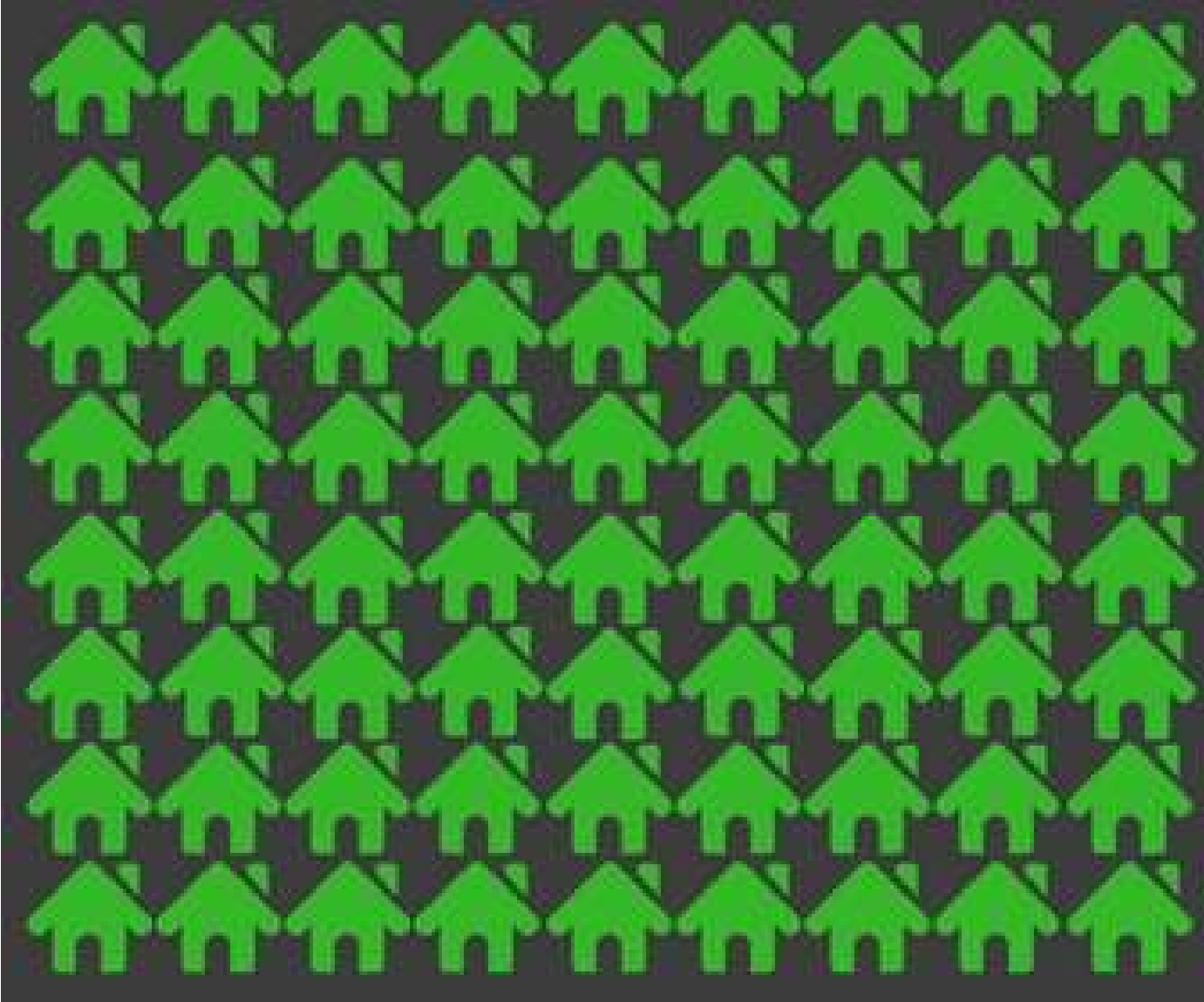
# FINDING UNSERVED LOCATIONS

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- **Baseline Data** from the Federal Communications Commission (FCC)
- **Additional Data Sources** indicating Unserviced (NC Broadband Survey)
- Identify areas receiving other **federal/state broadband investments**



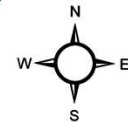
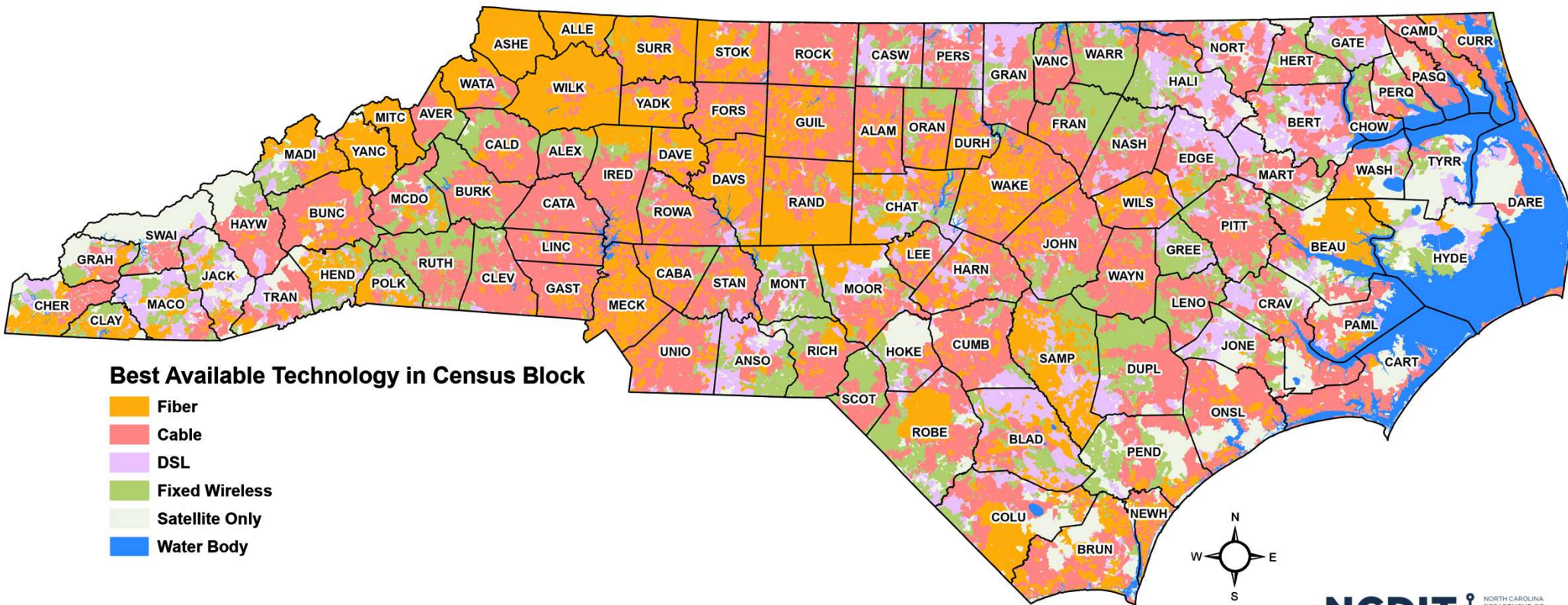






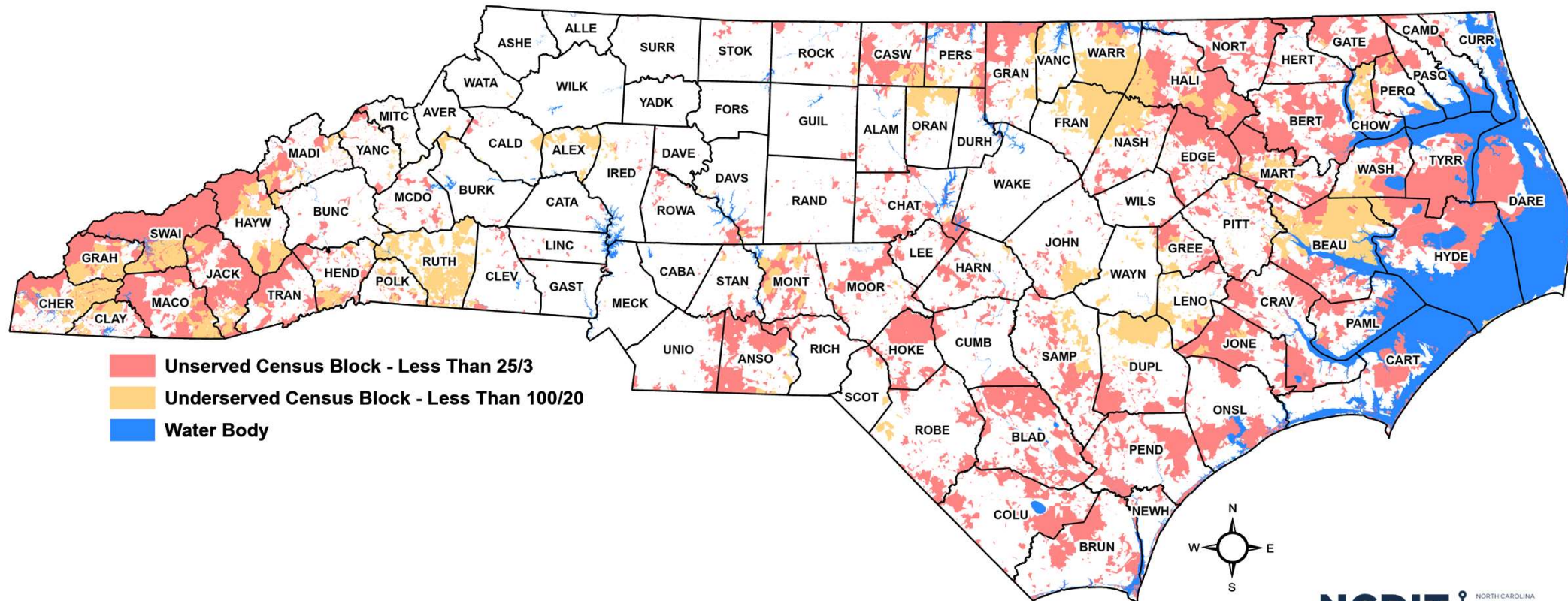
# NC Broadband Technology Inventory



Data derived from U.S. Federal Communications Commission Form 477  
Data Release Dec. 2020.

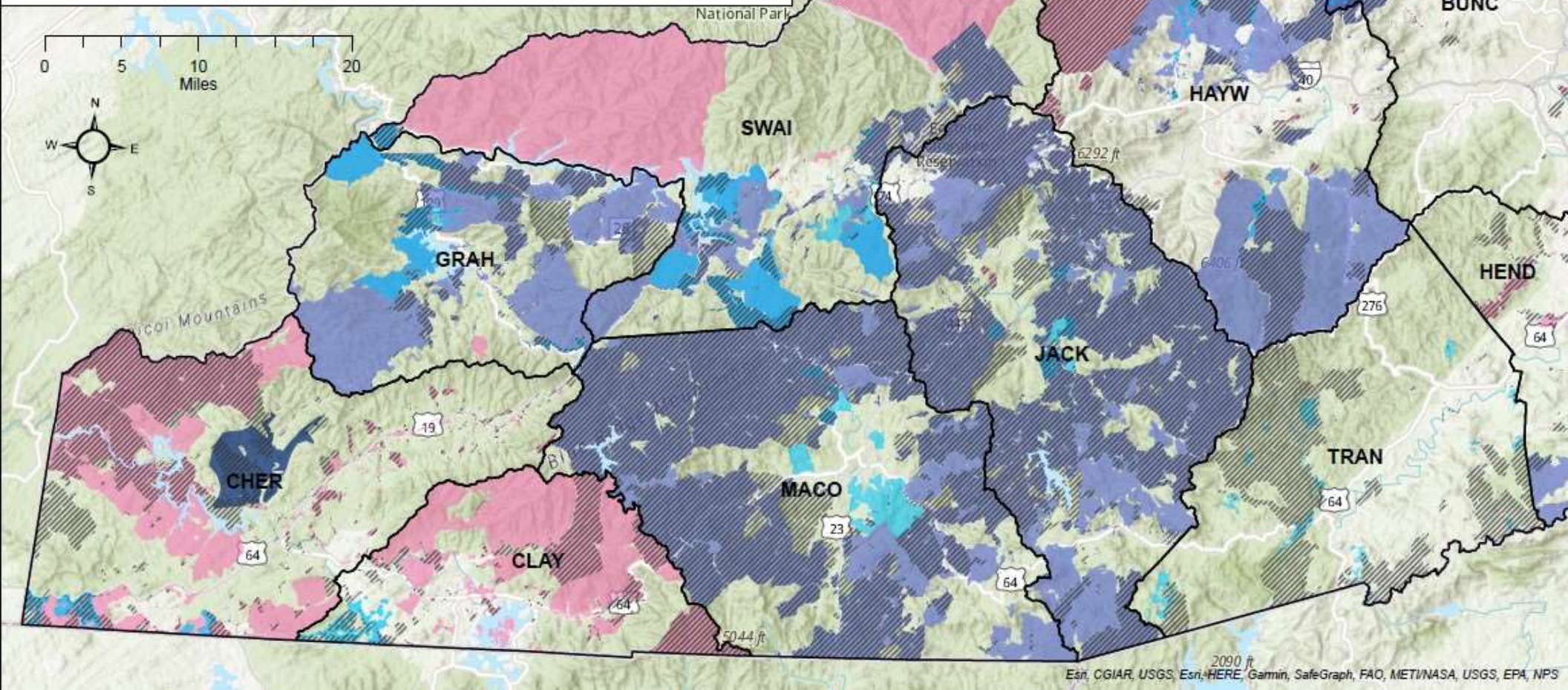


# NC Broadband Service Inventory

Unserved Census Blocks Reporting DSL Only, Satellite, or No Service  
And Underserved Census Blocks reporting Less Than 100 mb/s Download and 20 mb/s Upload  
Data derived from U.S. Federal Communications Commission Form 477 Data Release Dec. 2020.



-  FCC Form 477 Unserved Census Blocks - Dec. 2020 Release - w/Population > 0
-  GREAT Award Locations - Round 3
-  GREAT Award Areas - Rounds 1 & 2
-  FCC RDOF Terrestrial Broadband Awards
-  FCC RDOF Satellite Broadband Awards
-  Other Federal Grant Awards (USDA ReConnect, Community Connect, and ARC Grants)



2090 ft  
 Esri, CGIAR, USGS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS



# NC BROADBAND SURVEY

All Survey Data

General Survey Data

Farm Survey Data

Phone Survey Data

**NC DIT**  
Broadband Infrastructure Office  
NORTH CAROLINA  
DEPARTMENT OF  
INFORMATION  
TECHNOLOGY

About

Tool Tips

## Broadband Survey Data (General, Phone, and Farm)

Select a category

All Counties

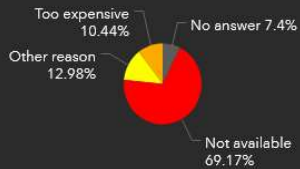
NC Broadband Survey Points (General, Phone, & Farm)

Service Level (calculated field):

- No Internet
- Under 25/3
- Under 25/3 (Fastest)
- Over 25/3
- Other

FCC Blocks Less Than 10mb/s Download and 1mb/s Upload (June 2020)

### Primary Reason for No Internet

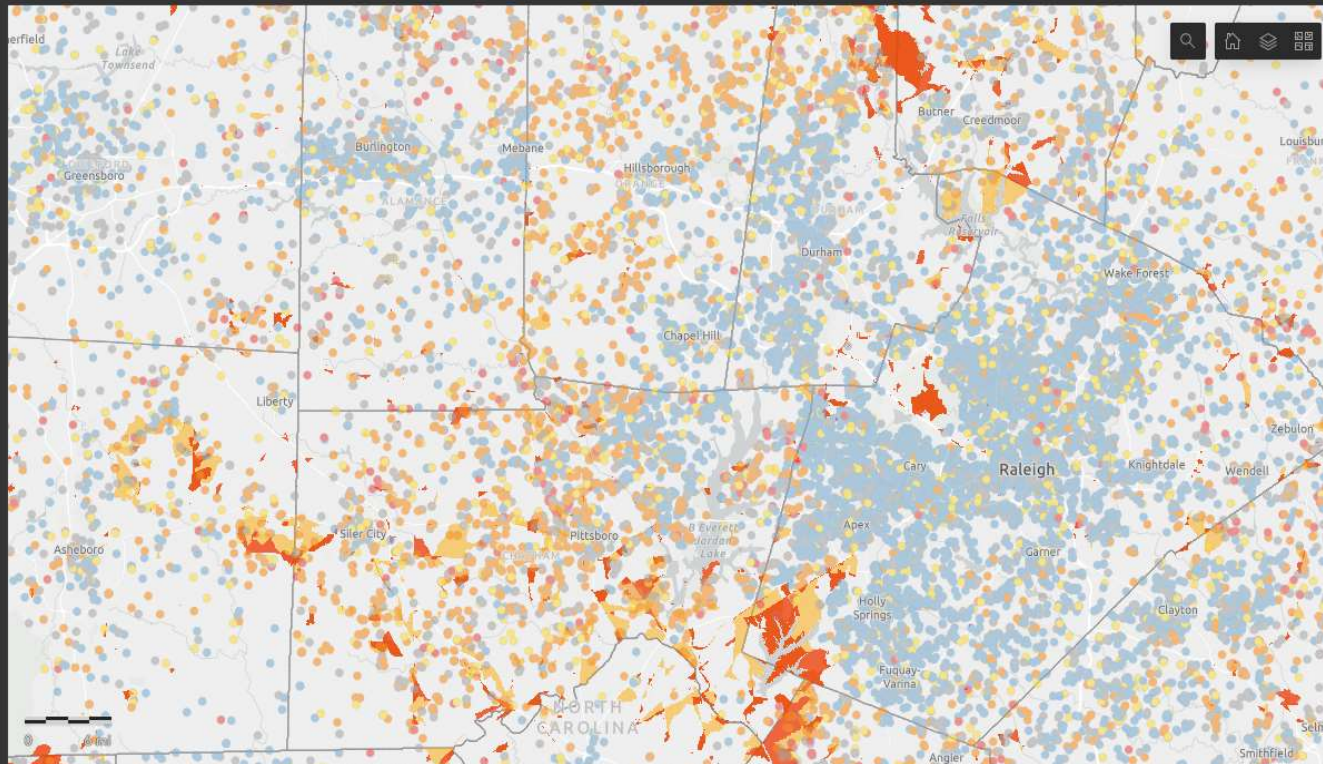


(Click slices to filter map survey points.)

Number with Speeds Under 25/3

**11.1k**

out of 59.2k Surveys with Speed Test Results



Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS | North Carolina Geodetic Survey, North Carolina Department of Transportation Powered by Esri

**About:** The NC OneMap dashboards provide location-based information on broadband availability, as collected from citizens. This Survey data consists of data collected through three specific online surveys: 1) General Survey, 2) Farm Survey, and 3) Phone-based Internet Reporting Tool. The dashboards are updated daily with new data gathered from newly surveyed North Carolinians. The dashboards were created in collaboration with Broadband Infrastructure Office, the NC Center for Geographic Information and Analysis (CGIA), and the Friday Institute for Educational Innovations.

Total Survey Responses  
(General, Farm, & Phone)

**87.2k**

Number without Internet

**23.2k**

out of 87.2k

Wireline % Access: Internet

Number Without Access to Cellular Service

**3.9k**

out of 87.2k

Cellular % Access: Cell

# GREAT GRANT ONLINE MAPPING TOOL

About

For detailed instructions for this tool and additional information on the data included in this map, use the [NC GREAT Grant Online Mapping Tool Help Document](#).

Zoom in on the map to display the North Carolina AddressNC Data. Address data can only

Legend

Previous GREAT Grant Awarded Address Locations



AddressNC v1



NTIA BIP Award Areas 02/24/2022 - Ineligible for GREAT



Previous GREAT Grant Awarded Areas

Layer Visibility

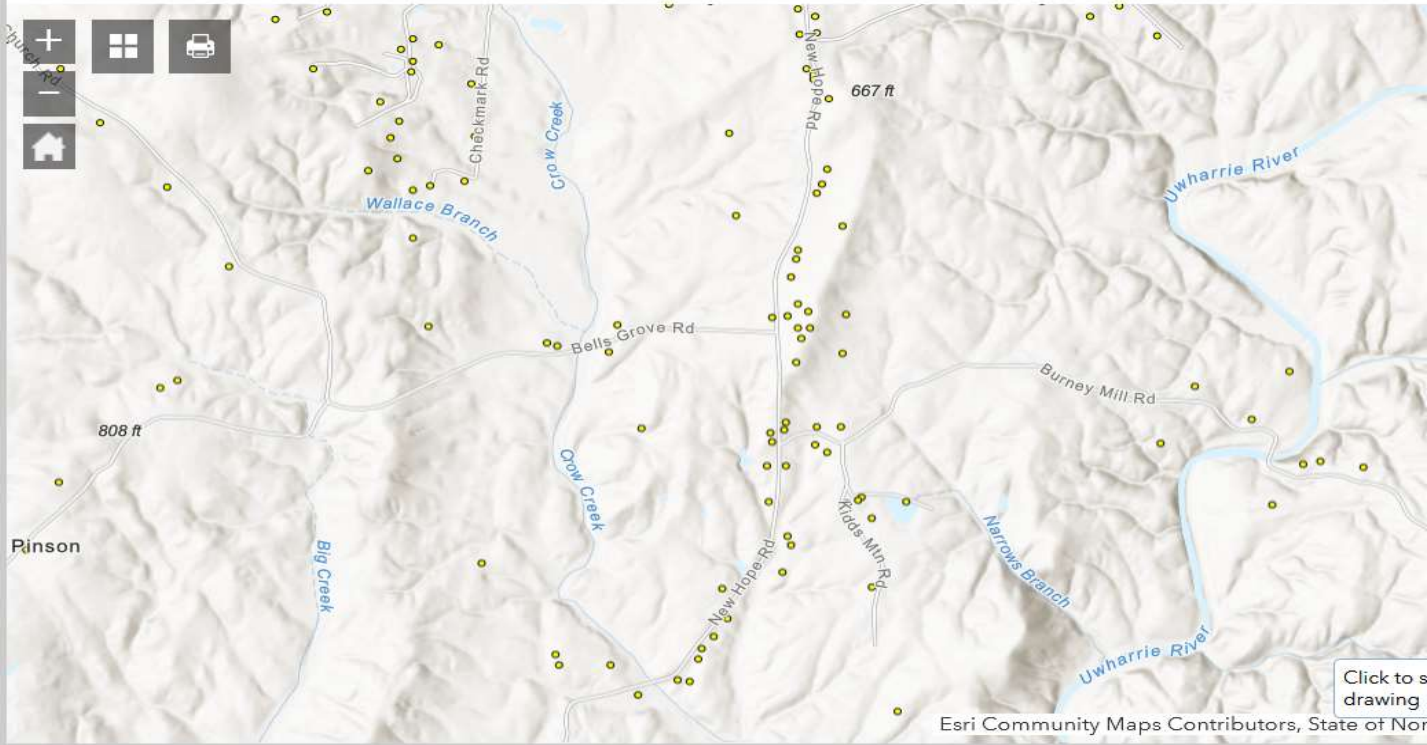
Layers



Previous GREAT Grant Awarded Address Locations



AddressNC v1



Esri Community Maps Contributors, State of North Carolina

Click to start drawing

Select



Layer

# GREAT APPLICATION REVIEWER (INTERNAL)

GREAT Application Reviewer

COUNTY FILTER:  
CHATHAM

Application Locations  
**10,910**

Households Served  
**10,552**

Households  Businesses

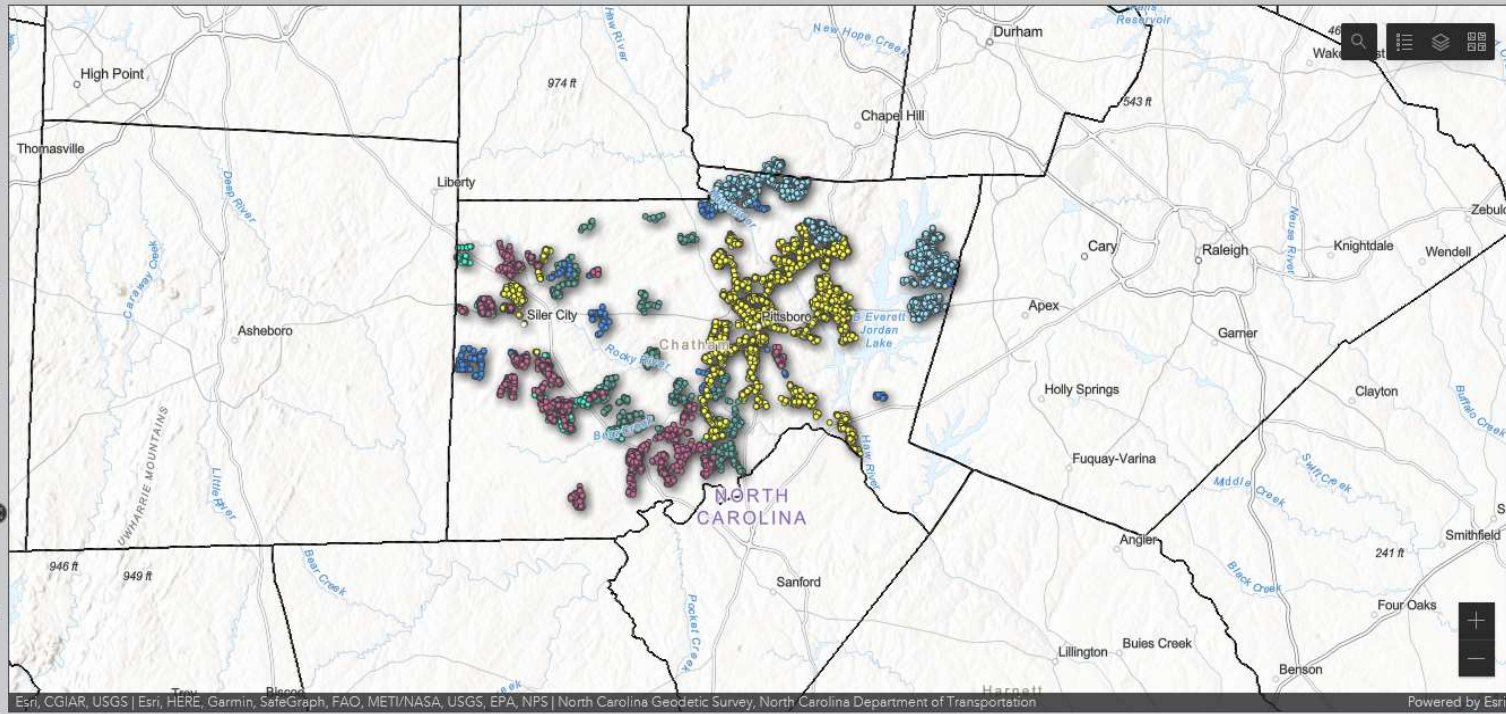
Protested Locations  
**4,256**

Ineligible Locations (State/Fed Grants, etc)  
**13**

Total Project Cost  
**\$39,547,490**

Proposed Match Amount  
**\$19,773,745**

Avg. Cost Per Location  
**\$4,882.9**



GREAT2022 Application Addresses

great\_applicant

- ATMC
- BRMEMC
- BalsamWest
- BellSouth
- CND
- CebridgeAcquisition

**APPLICATION ID FILTER**

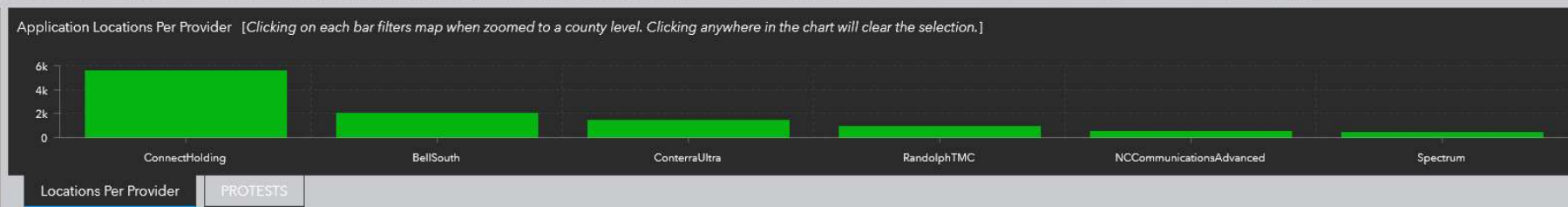
- 1000013484 - CHATHAM COUNTY - RandolphTMC
- 1000013507 - CHATHAM COUNTY - NCCommunicationsAdvanced
- 1000013974 - CHATHAM COUNTY - ConnectHolding
- 1000013979 - CHATHAM COUNTY - BellSouth
- 1000013980 - CHATHAM COUNTY

Select the application ID to filter the dashboard to the specific application. Click again to clear the filter.

Percent in FCC Unserved Blocks

**45.97%**

Averaged unless filtered to one application



## CAB PROGRAM (\$400M)

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- Partnership between county and NCDIT
- **Mutually identify eligible, unserved and underserved areas**
- **Competitive bidding process, evaluation criteria under development**
- No county may receive more than \$4 million in aggregate funding from the CAB Program in a fiscal year
- Award must use county and state funds
  - Counties will transfer funds to the state
- State provides program and fiscal oversight of project



# KEY NEXT STEPS

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## Mapping, High-Level:

- New FCC Data Processes in Place - Fall 2022
- Integration of FCC Data with state data processes
- Continued use of AddressNC data and utilization of Building Footprints

## Programmatic Next Steps:

- Award of Remaining GREAT Grants
- Development of Mapping Coordination Processes for CAB
- Development of Mapping Processes for Stop Gap

# BROADBAND MAPS - NC ONE MAP



NC OneMap

DATA PROJECTS ▾

ANNOUNCEMENTS

TERMS

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ABOUT



NC GREAT Grant Awards

## NC GREAT Grant Online Mapping Tool

Online Mapping Tool to assist in identifying possible project areas for the GREAT Grant Program.

[Data](#)

[View](#)



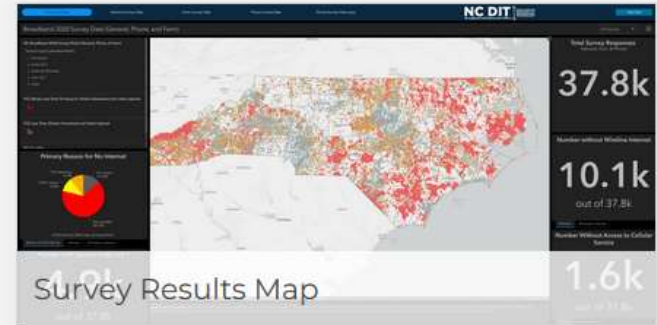
Broadband Planning

## CAB Planning Tool

Completing Access to Broadband (CAB) planning dashboard provides many datasets useful for project planning purposes.

[Data](#)

[View](#)



Survey Results Map

## NC Broadband Survey

The NC Broadband Survey is designed to gather information on locations in the state without adequate internet access and speeds.

[Data](#)

[View](#)

# QUESTIONS?

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## **GREAT Grant Questions**

- [GREATGrant@nc.gov](mailto:GREATGrant@nc.gov)
- <https://www.ncbroadband.gov/grants/great-grant-federal/great-grant-2021-2022>

## **CAB Program Questions**

- [CABprogram@nc.gov](mailto:CABprogram@nc.gov)
- <https://www.ncbroadband.gov/grants/cab-grant>

## **Mapping Questions**

- [broadbandmapping@nc.gov](mailto:broadbandmapping@nc.gov)