Internet for All Webinar:
Middle Mile Program 1-Year Anniversary Celebration

September 25, 2024

Housekeeping

Questions
Type questions in the Q&A box on the right-hand side of the screen.

Presentation
The presentation and recording of the webinar will be available on the BroadbandUSA website under Events/Past Events (https://broadbandusa.ntia.doc.gov/events/past-events)

Agenda

Welcome

- Sarah Bleau, Director, Middle Mile Grant Program, NTIA
- Douglas Kinkoph, Associate Administrator of the Office Internet Connectivity and Growth, NTIA

Grafton County

- Julie Libby, County Administrator

Visionary Broadband

- Kyle Farley, Regulatory Compliance Specialist

Scott County Telephone Cooperative

- Matthew Hill, COO/Chief Engineer

Mid-Atlantic Broadband Communities Corporation

- Tad Deriso, President & CEO

Q&A

Grafton County

Grafton County Middle Mile Project

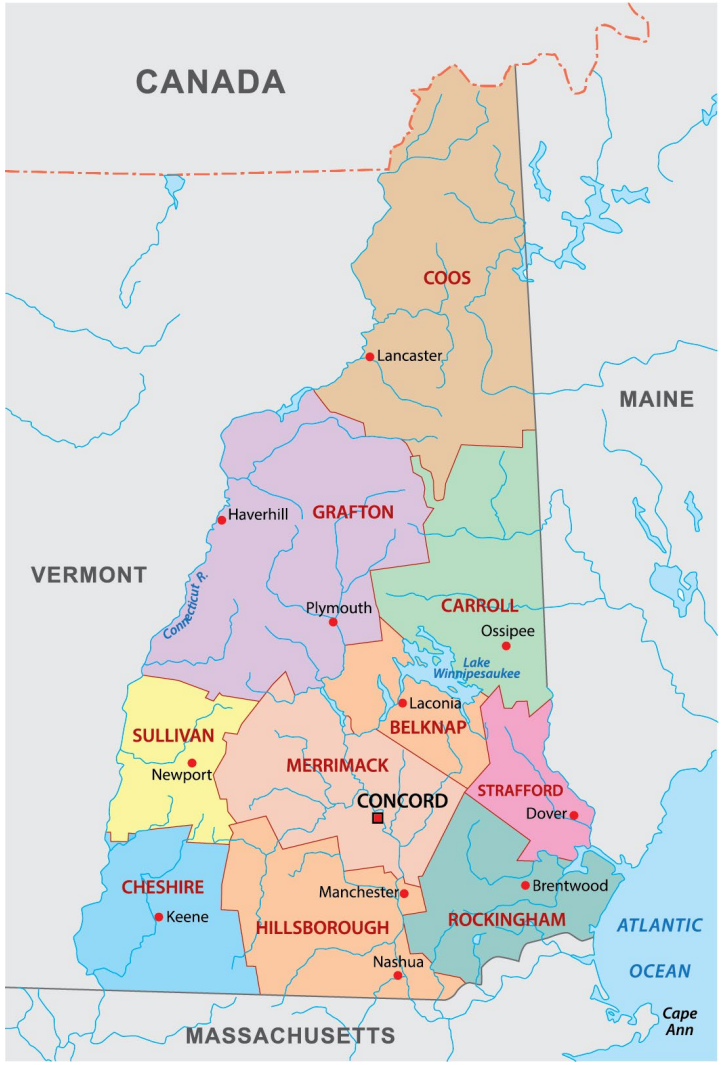
Enabling Middle Mile Funding

NTIA Funding

- Grafton County received $11,969,000 through Enabling Middle Mile funding.
- Funds will be used to build out 222 miles of a middle mile backbone network that will connect 25 of the county's 39 municipalities.
- Eventually, this will allow municipalities to complete last-mile projects to bring fiber and high-speed internet into residents' homes.
- The County is funding the 30% match in full, demonstrating the importance of this project.

Grafton County, NH

- Rural County located in Northwestern NH along the Vermont Border
- NH has ten (10) counties, Grafton is the 2nd largest geographically with 1750 square miles
- 48 residents per square mile
- 38 towns and 1 small city



White Mountain National Forest

- Grafton County has a large concentration of the White Mountain National Forest
- 70% of our project is land that passes through areas of the WMNF
- This mountainous terrain makes high-speed internet access and cell phone coverage very challenging.

Highlighting the need for reliable high-speed internet access

- COVID highlighted how the lack of adequate internet coverage can impact our everyday lives.
- Grafton County hosted a Whitehouse Roundtable event in January 2024 to celebrate our grant award. We invited residents to come and share their stories.
- Haley's story left an impression on everyone present.

Haley's story

Haley is a student from a Grafton County town of 800. Her 8th grade class had 7 students.

Haley started school as a freshman in August 2020

She was expected to do most of her schoolwork and learning online.

Her home internet connection was terrible. She couldn't hear what others were saying, and they could not hear her speaking.

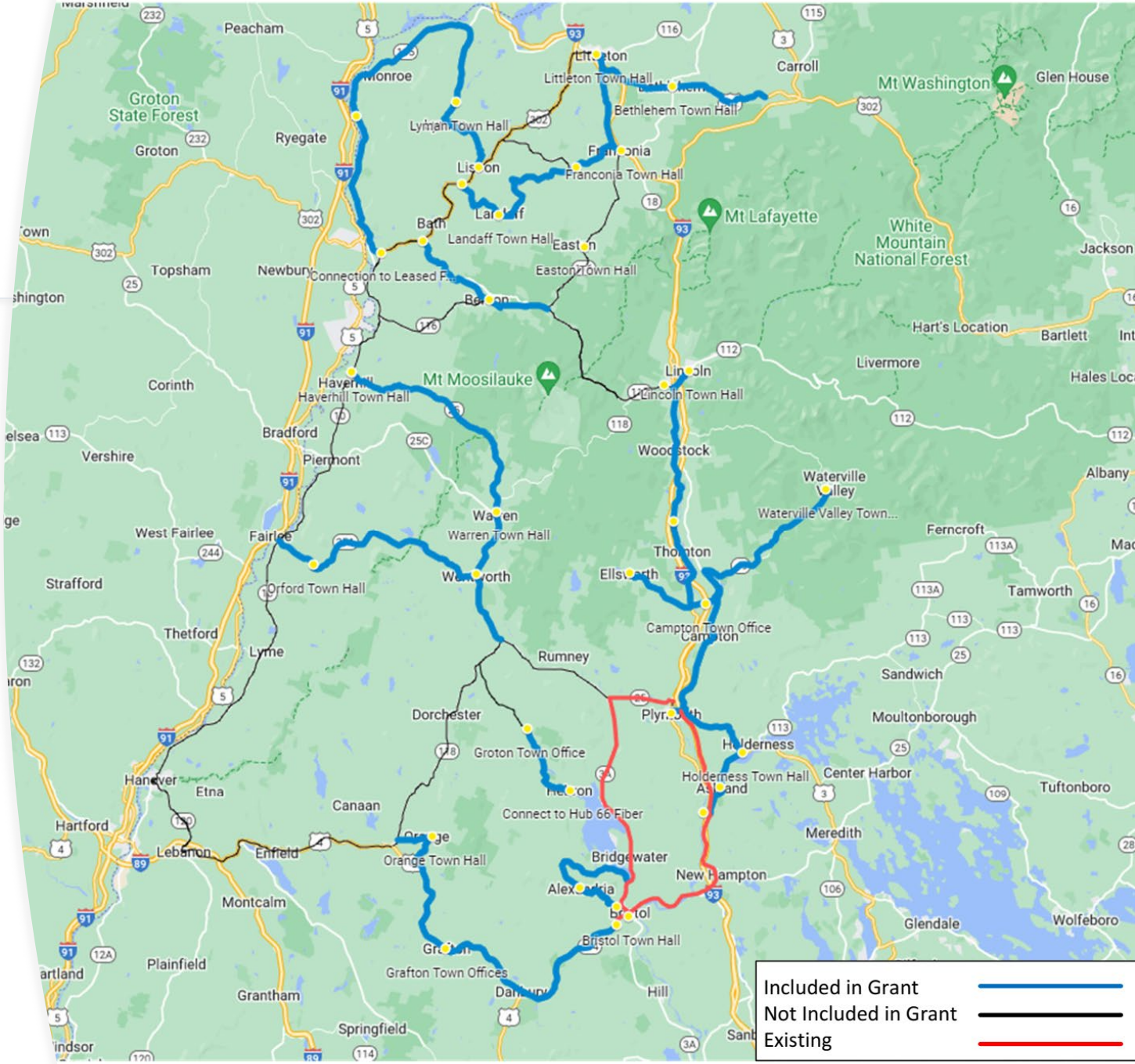
- This created tremendous learning and socialization challenges.
- Haley was diagnosed with several mental health conditions stemming from the anxiety and stress being caused by hybrid remote learning.
- In that first semester as a student, she scheduled a meeting with the school to drop out.
- Happily, that is not where Haley's story ended. She was able to work with the school, convert to mostly paper, and do her four (4) days of schoolwork in the two (2) days she was physically present at the school.
- Haley graduated in 2024 as the Salutatorian of her class. She overcame the odds!
- I share Haley's story because it truly highlights the struggle that so many face and the importance of funding programs, such as the Enabling Middle Mile, so that communities can do the work needed to improve broadband availability for everyone

Grafton County Broadband

- How can we tackle this problem from a county level?
- Most municipalities in Grafton County did not have the resources.
- Grafton County Commissioners, working with town officials, made the decision that it would be cost-effective to tackle this from a county-wide approach.
- September 2020 – The Grafton County Broadband Committee was created.
- Several town officials volunteered to develop a solution to the lack of broadband available in our county.

Our Project

- Grafton County will deploy a resilient, open-access, fiber-optic, middle-mile network to connect 25 municipalities within the County and will provide a scalable, future-proof broadband network to support county, municipal, and public safety services, as well as an open-access platform to support last-mile broadband and connectivity across the underserved and unserved census blocks within the County. The network will also directly support other industry services such as education, healthcare, and economic development



Our Network

The project will utilize a combination of building new fiber optic cable where there are obvious gaps and optimizing existing infrastructure when possible. The project primarily involves installing aerial cable on existing pole infrastructure. All installed backbone cable will be 144 strand single mode fiber, and multiple internet tie points will be available for redundant internet connections. The network offers multiple “on/off” ramps for service providers interested in servicing underserved areas. It reduces the cost of entering new markets for internet service providers, which helps make rural markets more economically feasible.

Funding

- In 2021, the county dedicated over $4,000,000 in ARPA funding to the Broadband initiative. Funds were used to complete the project's design. Through an RFP process, the County selected eX2 Technologies out of Omaha, NE, to design and build the network. Grafton County also paid for last-mile designs to be completed for each municipality in the county to help our communities be prepared to deploy last-mile once (if) the middle-mile network was to be constructed. We believed that getting all of this work done utilizing ARPA funds before funding had been secured to build the middle mile network would put the county in a better position to receive funding as the project was essentially “shovel-ready.”

Status of our Project

- Completing the Environmental Assessment has been a long process. Due to the lengthy approval process of the US Forest Service, the project has been divided into two (2) projects using the independent utility option through NTIA.
- The EA for the non-WMNF sections of our project has been approved, and we plan to start these sections as soon as possible.
- We have also issued an RFP to Internet Service Providers as we look to the future with this project and getting fiber into homes. Our proposals are due at the beginning of October. We are also excited about this process and getting an ISP or ISPs on board to partner with to help fill in the gaps in our network and to see final plans come together to get fiber to every Grafton County resident!

- With construction and running fiber now becoming a reality, we are so excited to see this project move forward and be able to have the fiber available so that last-mile projects can be completed.
- None of this would have been possible without receiving this grant funding. We are so thankful to NTIA for selecting our project!
- It is easy for Grafton County to recognize the importance of funding programs such as these.

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Visionary Broadband

VISIONARY
BROADBAND

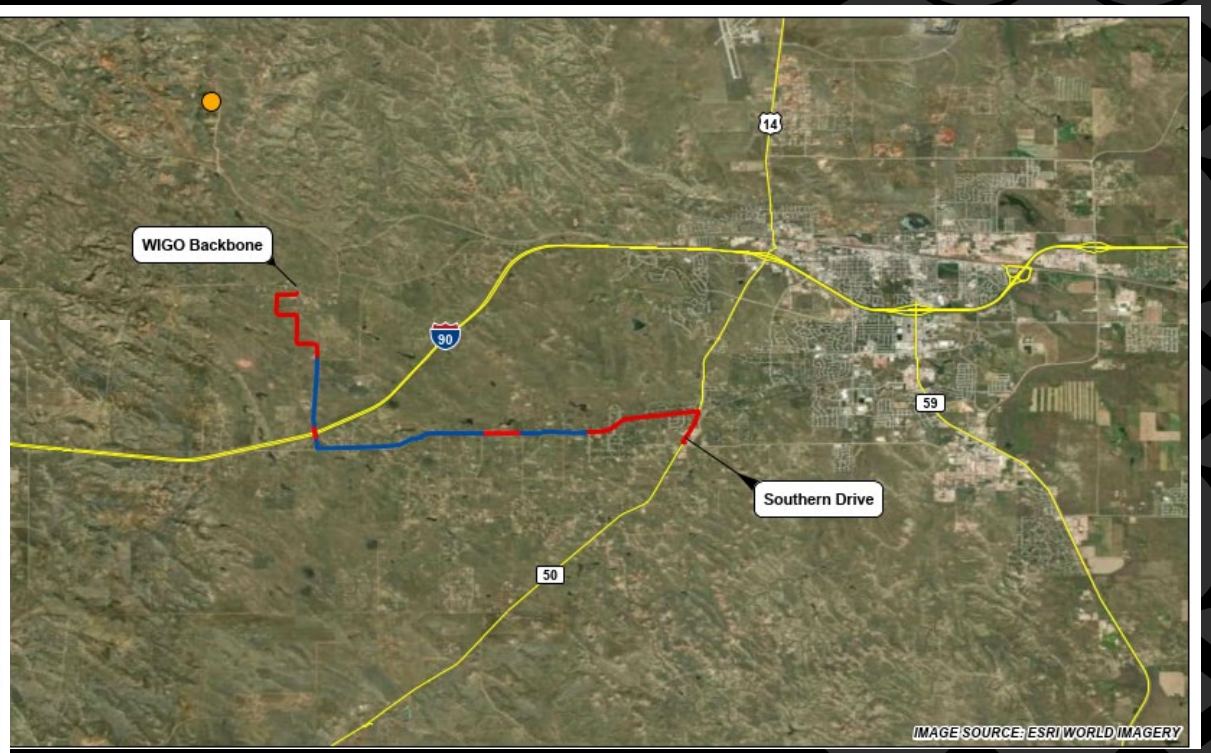
WHO IS VISIONARY BROADBAND

In 1994, three visionaries turned a Bulletin Board Service with six modems and a 56k connection to the internet into a regional broadband powerhouse. Visionary was the first broadband provider in a dozen rural Wyoming communities, and we've taken that know-how to more than 100 communities and 20,000 customers today across Wyoming, Colorado, Montana, and New Mexico.

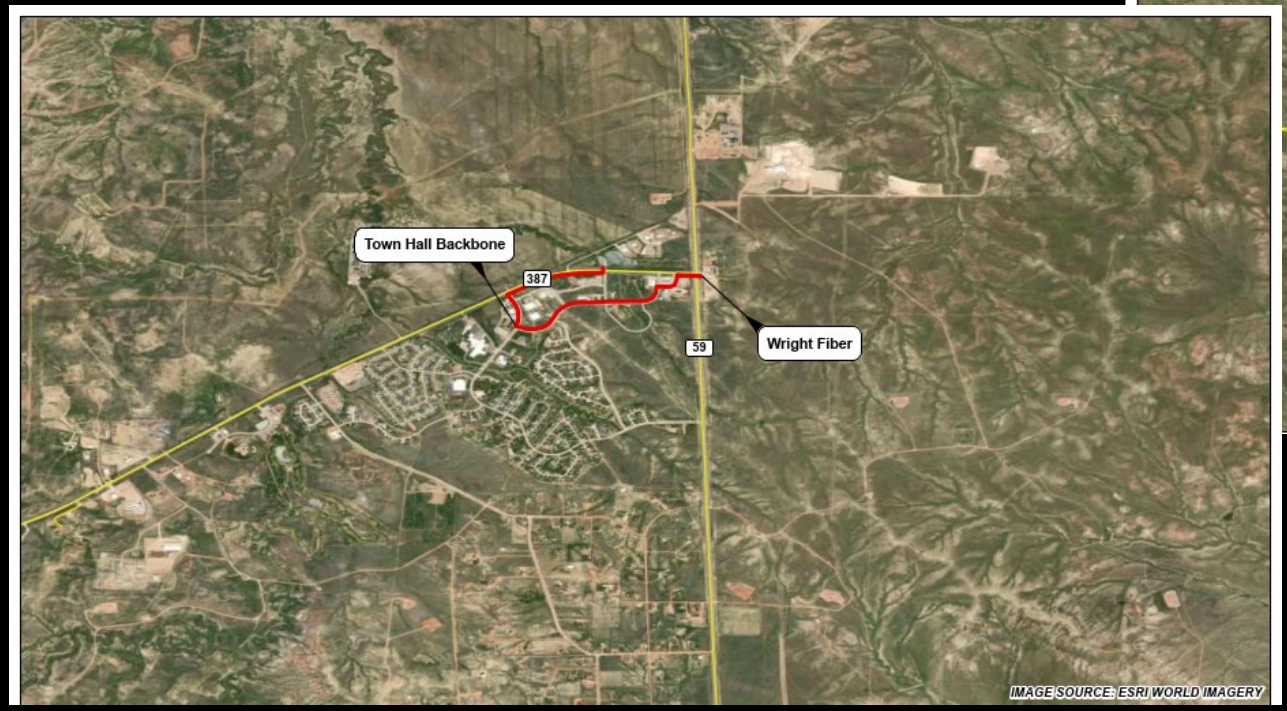
Visionary is focused on providing quality internet service by customizing products for underserved, rural markets. Whether you're using your internet to work, learn, or play, we are committed to delivering a fast and reliable connection when you need it most!

Visionary MMG Project Area

Gillette WY (Oriva Hills)



Wright WY



Why did Visionary apply?

Commitment to Underserved Areas:

- Visionary has a track record of deploying broadband to historically unserved and underserved communities across the Rockies.
- Involvement in various public-private partnerships and participation in state and federal grant programs demonstrate our dedication to closing the digital divide.

Advanced Technology Integration:

- Utilizing fiber, microwave, copper, and coaxial technologies, Visionary excels at delivering broadband across diverse service areas.
- We effectively integrate our own infrastructure with third-party providers to ensure expanded and reliable broadband services where it's needed most.

Middle-Mile Expertise:

- Our experience in building middle-mile networks allows us to bridge the gap between communities, with the capability to extend services over 40+ miles.
- This unique project reinforces our ability to scale broadband infrastructure and expand services across multiple communities.

Why is the project important?

Level of Need

- Oriva Hills Location: 10 miles west of Gillette, with 128 homes
- Unserved/Underserved: 100 homes with limited or no broadband access (as of June 2021)
- 41.4% of households receive Social Security income (above national average of 31.4%)
- Aging population with disabilities faces higher poverty rates (8% vs. 4.7% nationwide)

Visionary's Proposal for Oriva Hills

- Critical fiber backhaul upgrades to increase broadband capacity
- One additional tower to expand coverage and shorten distance to access points
- Offer 100/20Mbps service plans reducing per-megabit costs by 98% compared to current DSL
- Hybrid fixed wireless and fiber middle-mile solution to meet area's needs

Why is the project important Cont.?

Level of Need

- Wright WY Population: 1,835; remote and lacks broadband investment
- Anchor institutions (government, healthcare, emergency services) lack fiber access
- High costs for DSL and speeds as low as 3Mbps

Visionary's Proposal for Wright WY

- Establish a Point of Presence (POP) at Wright Town Hall
- Facilitate fiber-to-the-premises deployment to reduce prices and increase competition
- Interconnectivity for third-party carriers and Visionary's last-mile fiber services
- Lower per-megabit costs and improved affordability of wireline services
- 40.2-mile IRU to ensure redundancy for essential communication services (DMV, 911 dispatch, law enforcement)
- Enhanced middle-mile connection between Wright and Campbell County's administrative center in Gillette

Visionary’s Progress

Progress Update:

Environmental Analysis: Successfully completed.

Wright WY Segment: Wright segment of the Middle-Mile Grant (MMG) is nearly 100% complete.

IRU Agreement: Finalizing Indefeasible Right of Use (IRU) access between the Town of Wright and the Town of Gillette for interconnected communication capabilities.

Oriva Hills Equipment: Procured essential equipment, including a new tower and upgraded backhaul, for Oriva Hills deployment.

Oriva Hills Construction: Construction anticipated to start fall 2024.

Impact on our Community!

Visionary’s hybrid wireless and fiber solution leverages existing infrastructure, making the solution cost-effective and scalable to support future growth and technological advancements in the area.

High-speed internet enables remote work, online education, business opportunities, and fostering economic growth in the community.

The project helps aging and disabled residents, 8% of whom live below the poverty line, by providing essential connectivity for healthcare, local services, and communication purposes.

Visionary’s increased backhaul capacity and new tower will benefit not only Visionary but all last-mile providers, enhancing competition and improving broadband availability in the area.

Residents currently paying $33/megabit for 1.5Mbps DSL would see a 98% cost reduction, with Visionary’s plan costing just $0.69/megabit.

Improves access, affordability, and digital inclusion for Oriva Hills and Wright residents, benefiting vulnerable populations and boosting the overall community's connectivity and future economic opportunities.

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BROADBAND

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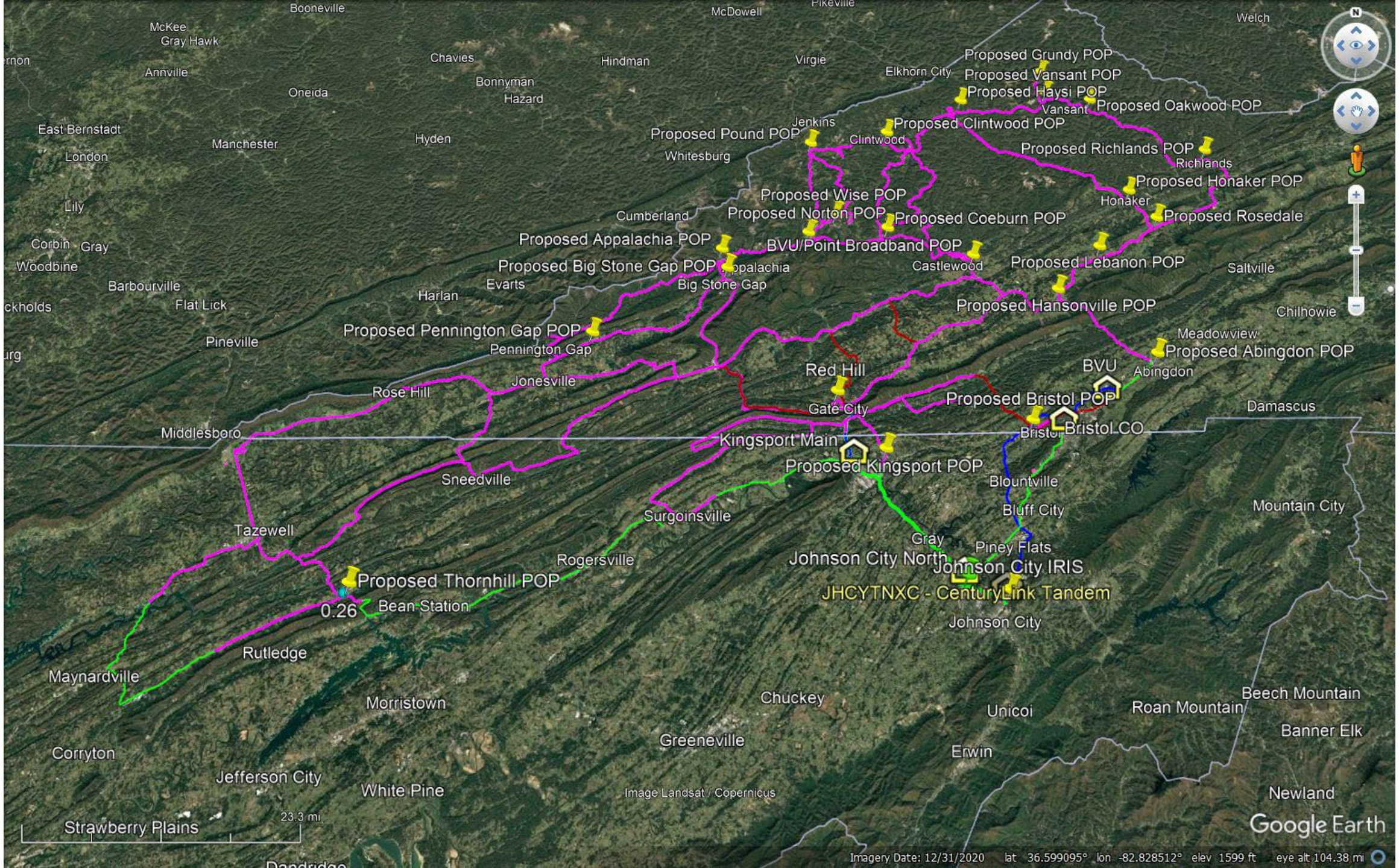
Scott County Telephone Cooperative



Proposed Grundy POP
Proposed Vansant POP
Proposed Haysi POP
Proposed Oakwood POP
Proposed Clintwood POP
Proposed Pound POP
Proposed Richlands POP
Proposed Honaker POP
Proposed Wise POP
Proposed Norton POP
Proposed Coeburn POP
Proposed Rosedale
Proposed Appalachia POP
BVU/Point Broadband POP
Proposed Big Stone Gap POP
Proposed Lebanon POP
Proposed Hansonville POP
Proposed Pennington Gap POP
Proposed Abingdon POP
Red Hill
BVU
Proposed Bristol POP
Bristol CO
Kingsport Main
Proposed Kingsport POP
Johnson City North
Johnson City IRIS
JHCYTNXC - CenturyLink Tandem
Proposed Thornhill POP
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Bean Station
Booneville
McDowell
Pikeville
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Blountville
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Surgoinsville
Tazewell
Gray
Piney Flats
Rogersville
Johnson City
Rutledge
Maynardville
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Chuckey
Unicoi
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Banner Elk
Greeneville
Erwin
Corryton
Jefferson City
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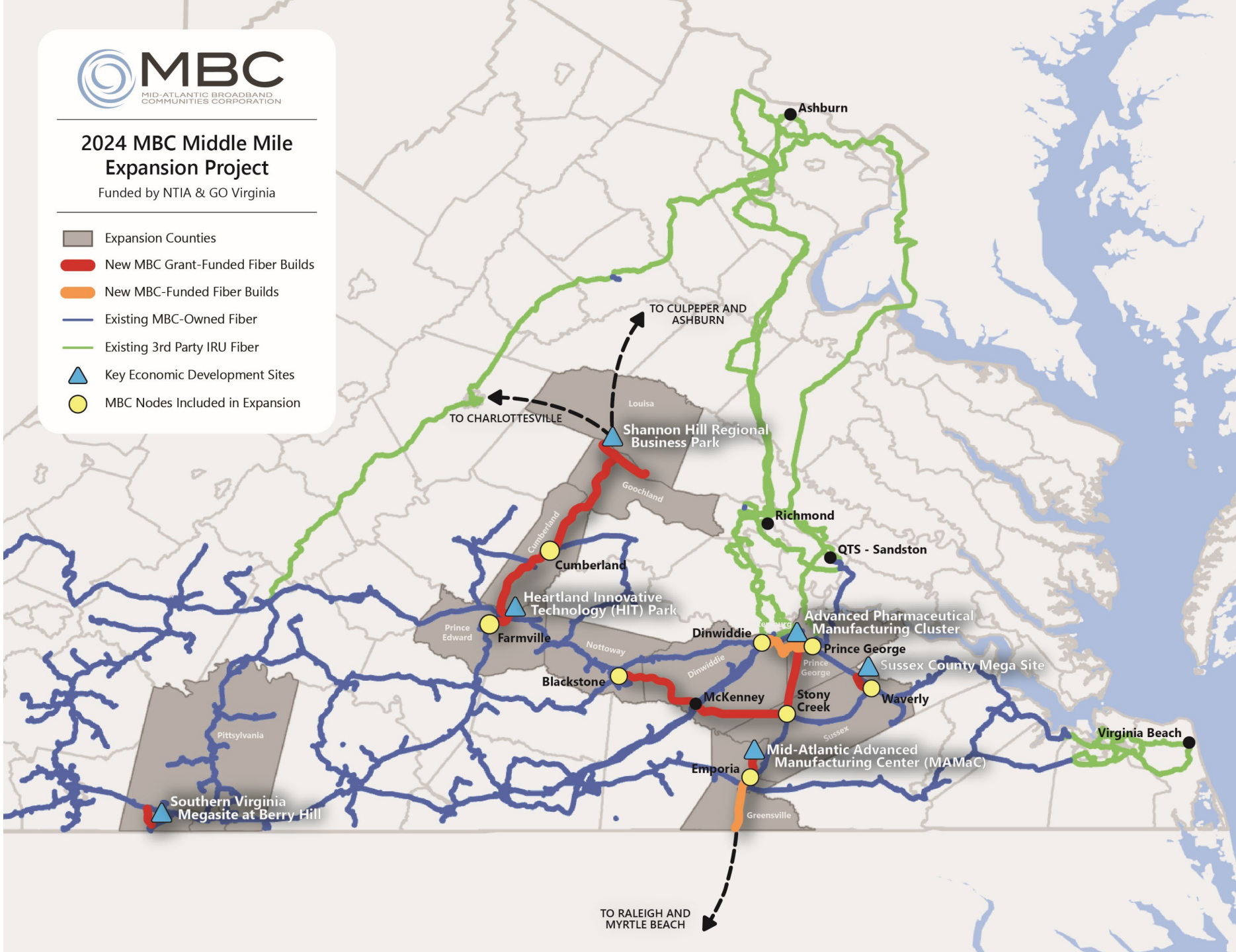
Mid-Atlantic Broadband Communities Corporation

NTIA & GO Virginia Middle Mile Expansion Project

- 139 Miles of new open access middle mile fiber infrastructure in 10 localities
- $23M capital project increased to $28M with no change to Federal Share ($16M)
- Electric Cooperatives and ISP's utilizing MBC middle mile to extend reach to residential and business cutomers



EST. 2004 20 YEARS MBC

Q & A