



2023

WEST VIRGINIA OFFICE OF BROADBAND
West Virginia Broadband Enhancement Council
Annual Report

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1. Executive Summary

The West Virginia Department of Economic Development, Office of Broadband, and the West Virginia Broadband Enhancement Council jointly submit this 2023 Annual Report to the West Virginia Legislature, in compliance with W. Va. Code §31-G-1A-2(8). The agencies work collaboratively with a shared mission: to expand and improve broadband connectivity in West Virginia.

In 2021, Governor Justice launched West Virginia's Billion Dollar Broadband Strategy. The Governor announced the State's bold broadband initiative on Friday, October 15, 2021. Learn more about the Governor's announcement [here](#).

Following the Governor's announcement, the West Virginia Legislature passed House Bill 339 on October 20, 2021. Through this legislation, the Legislature created the West Virginia Broadband Development Fund and allocated \$90 million of State and Local Fiscal Recovery Funds (SLFRF) funds, under the American Rescue Plan Act (ARPA), and \$10 million in General Revenue funds to broadband development.

To carry out the Governor's Billion Dollar Broadband Strategy, the West Virginia Department of Economic Development (WVDED), Office of Broadband, in coordination with the West Virginia Broadband Enhancement Council, developed and launched the West Virginia Broadband Investment Plan (WVBIP). The WVBIP is designed to:

- Leverage Private Investment
- Involve Local Governments
- Encourage Public-Private Partnerships
- Connect the Unconnected

The WVBIP includes four separate programs, each designed to meet West Virginia's broadband development needs through efficient utilization of state and federal funding streams. Briefly, the WVBIP programs include:

- a. Line Extension, Advancement and Development (LEAD): Expansions of existing fiber and cable networks,
- b. GigReady: A state incentive for local governments and organizations to pool local ARPA allocations or other local funding,
- c. Major Broadband Project Strategies (MPBS): Significant new networks or major expansions of existing networks, and
- d. Wireless Internet Networks (WIN): Expansions or upgrades of existing fixed wireless networks.

Project announcements began in 2022, and by the close of 2023, West Virginians started connecting to new broadband infrastructure. Throughout 2022 and 2023, WVDED continued to build additional connections, awarding nearly 40 projects touching 40 counties. Additionally, in 2023, WVDED released several major plan documents for Infrastructure Investment and Jobs Act (IIJA) grant funding, setting the stage for project awards and even more infrastructure deployment by early 2024.

1.1 West Virginia's Billion-Dollar Broadband Strategy: The 2021 Announcement

CHARLESTON, WV – On October 15, 2021, Gov. Jim Justice unveiled a billion-dollar strategy to bring broadband availability to 200,000 more West Virginia homes and businesses. The plan will combine funding from federal, state, and local governments, along with matching investments from private-sector partners, to accelerate the expansion of high-speed internet to underserved areas of the state. The plan represents by far the largest investment in broadband in the state's history.

The Governor's strategy will add a \$236 million state broadband program to \$362 million in Federal Communications Commission funding and \$120 million from other state and federal sources, for a total of \$718 million in government funding expected to be allocated by fall 2022. The funds will be allocated through competitive programs that draw matching funds from private-sector and local government partners, generating more than \$1 billion in total broadband investment.

"This is surely a landmark day for West Virginia," Gov. Justice said. "We've been talking for years about how to fix the rural broadband problem. Now we're finally going to do it.

"West Virginia students deserve to be able to do their homework," Gov. Justice continued. "Our seniors deserve access to telehealth. Our businesses deserve to be able to reach their customers and suppliers. And all our residents deserve to be able to interact with their government, stay informed as citizens, and do all the hundreds of things that take high-speed internet. Starting today, we're going to make that possible.

"This couldn't have been done without the hard work and commitment of our Legislature," Gov. Justice added. "The state's legislative leaders, including President Blair and Speaker Hanshaw, along with all their members, deserve tremendous credit for their dedication to extending broadband to all West Virginians. It's an honor to work with them on this issue."

Governor Justice's broadband strategy focuses on coordinating a diverse set of federal, state, local, and private funding sources to maximize broadband expansion. The state has spent more than two years comprehensively mapping broadband access around the state, resulting in a detailed inventory of underserved locations that will allow pinpoint funding allocation.

The primary programs involved in the billion-dollar initiative are as follows:

(1) Rural Digital Opportunity Fund: The Federal Communications Commission's (FCC) Rural Digital Opportunity Fund (RDOF) offers internet service providers (ISPs) funding to extend service to underserved areas. The program centers on a reverse auction in which ISPs compete for grants to connect underserved census tracts, with each tract awarded to the ISP that can connect it with the least amount of federal subsidization.

Each participating ISP must provide the FCC a letter of credit for a portion of its grant award to ensure that its work is completed. This financial requirement creates a major hurdle for smaller

ISPs. In September 2020, however, Gov. Justice issued an executive order, EO 66-20, under which the state provides a financial backstop for ISPs that win RDOF awards, opening the door to vastly expanded RDOF participation in West Virginia.

Thanks to Gov. Justice's financial commitment, West Virginia now has the highest per-capita rate of RDOF funding in the country at \$202 per person, for a total of \$362 million. This RDOF funding will be complemented by private investment from participating ISPs to create a minimum expected RDOF impact of \$500 million. The program is expected to provide broadband availability to approximately 119,000 homes and businesses over five years.

(2) West Virginia State Broadband Initiative: The strategy's second major component will be operated by the state Office of Broadband and Broadband Council, using American Rescue Plan Act (ARPA) and state-budget funding. ARPA's Capital Projects Fund includes \$136 million for broadband in West Virginia. And – earlier today – Governor Justice placed on the Legislature's special session call an additional \$90 million appropriation of ARPA State Fiscal Recovery funds for broadband projects, along with a \$10 million appropriation of state general revenue funds for wireless broadband projects. These sources will provide \$236 million in combined funding for the state's own competitive broadband projects initiative.

Developed by the state Office of Broadband and Broadband Council in concert with leading national broadband experts, the state initiative comprises four award programs, each of which will allocate funds through a competitive application process:

Line Extension Advancement and Development (LEAD): The LEAD program will award competitive grants to ISPs to expand existing fiber and cable networks.

GigReady: Local governments in West Virginia have been allocated more than \$500 million from the ARPA Local Fiscal Recovery Fund, and many of them intend to invest that money in local broadband expansion. The GigReady Initiative will provide matching state funds for local governments that develop projects to pool their broadband investments.

Major Broadband Project Strategies (MBPS): The MBPS program will focus on large-scale multicounty projects that require additional resources to achieve rapid implementation.

Wireless Internet Networks (WIN): The WIN program will use \$10 million in state general revenue funds to expand and improve existing wireless internet networks. Wireless networks are a specialized solution useful in remote or sparsely populated areas that are difficult to reach with fiber optic cable.

All four components of the state-based program will competitively score applications from prospective funding recipients and will award funds based on evaluations by independent national broadband experts. Evaluation criteria include matching-fund contributions, speed to market, technical feasibility, and digital equality (providing service to underserved areas and populations).

Participating ISPs will be required to include a low-price service tier that is affordable for lower-income West Virginians.

All programs of the WVBIP matching-funds requirement has generated \$72,408,810 million in

investment beyond the \$236 million state contribution, for a total state-based program impact of at least \$226,194,566.

(3) Other federal and state funding sources: Other existing funding sources, primarily federal, are expected to contribute at least \$120 million to broadband development in West Virginia over the next five years.

Federal funding sources include the Federal Communications Commission, the U.S. Treasury, U.S. Department of Agriculture, the Appalachian Regional Commission, and the U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA). The West Virginia Office of Broadband and Broadband Council will coordinate with those programs to ensure that state funds are allocated efficiently, and maximum broadband coverage is obtained.

In 2023, the NTIA announced that West Virginia would receive \$1.2 billion under the Infrastructure Investment and Jobs Act (IIJA) Broadband Equity Access and Deployment (BEAD) program. Details concerning the BEAD program are provided in Section 7.

1.2 West Virginia Broadband Enhancement Council

The West Virginia Broadband Enhancement Council was created in 2017 under the West Virginia Department of Commerce. In 2020, the Council was transferred to the West Virginia Department of Economic Development for administrative, personnel and technical support services to improve coordination with the West Virginia Office of Broadband.

The Council has 13 voting members; as well as two Senate Appointees and two House of Delegates Appointees, one from each party, to serve as ex officio, nonvoting advisory members. The Council conducts a regular meeting on the second Thursday of each month, at 10:00 a.m., in the West Virginia Department of Commerce offices in Building 3 at the State Capitol Complex or virtually.

The Council builds upon input from numerous state agencies and recognizes the value of representation from urban and rural communities throughout West Virginia. The Council's composition, which includes a cross-section of state agency directors, legislative advisory members, business community leaders and both urban and residential users, ensures that multiple voices are heard, that West Virginia's needs are represented, and that viable solutions are thoughtfully pursued.

The Council is committed to the development of policies, plans, and procedures to expand and enhance broadband access throughout West Virginia. The Council places a primary emphasis on the development of broadband infrastructure in unserved and underserved areas of the State as outlined in West Virginia Code § 31G-1-1, et seq: <http://www.wvlegislature.gov/WVCODE/31G>.

In July 2016, \$1,475,641, was transferred to the newly formed West Virginia Broadband Enhancement Council from the previous Broadband Deployment Fund to the Broadband Enhancement Fund in the West Virginia Department of Commerce. The Fund's beginning balance on July 1, 2021, was \$1,255,086. Fiscal Year 2022 expenses from July 1, 2021 through June, 30 2022 totaled \$839,971. With the addition of a Fiscal Year 2023 appropriation of \$500,000, the Broadband Enhancement Fund balance as of June 30, 2023, was \$ **1,215,135..**

The Council's annual budget includes the purchase of the licensing necessary to continue speed testing and mapping projects, associated data subscriptions, software, marketing and communications, and other limited expenses to support broadband expansion. Additionally, the Council has approved the expenditure of funding for specific legal services and technical consulting services.

In 2021, House Bill 2002 amended West Virginia Code §31G to outline specific duties and authorities to be shared among West Virginia Broadband Enhancement Council the Office of Broadband.

For more information, visit the Council website at: broadband.wv.gov.

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1.3 West Virginia Office of Broadband

Created in 2021 by an act of the West Virginia Legislature, the West Virginia Office of Broadband is organized under WVDED as outlined in West Virginia Code § 31G-1A-1, et seq. The Office of Broadband is managed by a director, who reports to the Secretary of Economic Development.

The Office of Broadband works cooperatively with the West Virginia Broadband Enhancement Council. Both the Office of Broadband and Council are formed under WVDED. The agencies work collaboratively with a shared mission: to expand and improve broadband connectivity in West Virginia.

The Council was created in 2017 under the West Virginia Department of Commerce. In 2020, the Council was transferred to WVDED for administrative, personnel, and technical support services to improve coordination with the Office of Broadband.

The Council has 13 voting members; as well as two Senate Appointees and two House of Delegates Appointees, one from each party, to serve as ex officio, nonvoting advisory members. The Council conducts a regular open meeting on the second Thursday of each month, at 10:00 a.m., in the West Virginia Department of Commerce offices in Building 3 at the State Capitol Complex or virtually.

The Council builds upon input from numerous state agencies and recognizes the value of representation from urban and rural communities throughout West Virginia. The Council's composition, which includes a cross-section of state agency directors, legislative advisory members, business community leaders, and both urban and residential users, ensures that multiple voices are heard, that West Virginia's needs are represented, and that viable solutions are thoughtfully pursued.

In 2021, the West Virginia Legislature amended West Virginia Code §31G to outline specific duties and authorities of the Office of Broadband and the Council. This legislation transferred some duties and authority from the Council to the Office, assigned some distinct responsibilities to the Office, and identifies some areas in which the Council and the Office share responsibilities.

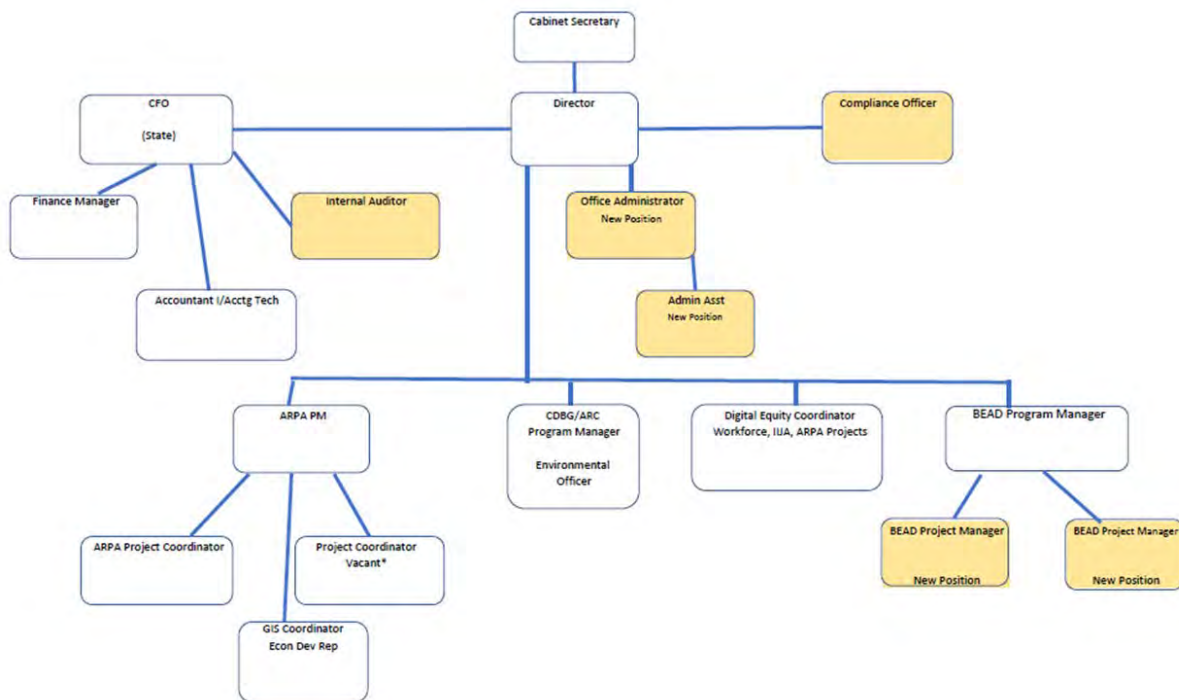
Distinct duties of the Office of Broadband include:

- a. Administering broadband grant programs
- b. Gathering and reporting data regarding adoption rates of broadband by speed and community, residential and non-residential
- c. Gathering data regarding prices and fees charged for broadband, residential and non-residential
- d. Public awareness of issues concerning broadband service
- e. Reporting to the Joint Committee on Government and Finance annually
- f. Mapping, including annual publication of a statewide assessment, with the broadband availability map to be available online for public access, and centralized AREA mapping in GIS form for use by the private sector
- g. Creating guidelines and recommendations regarding voluntary donation program for easements for broadband service
- h. Making recommendations to the Legislature

The Office of Broadband is the lead administrative agency for broadband development programs described throughout this document. The Office continues to spearhead the ARPA, BEAD and Digital Equity programs for the State. For consistency, WVDED will be used in reference to the Office of Broadband.

The Secretary of WVDED oversees all activities within the Office of Broadband. Figure 11 offers a working organizational chart of the Office of Broadband, as submitted to NTIA. New positions are indicated in support of the IIJA BEAD program.

Figure 1: Office of Broadband Organizational Chart



More specifically, Table 1 details the roles of each of the five Office of Broadband BEAD team members. These BEAD team members will specifically support the implementation of BEAD funding alongside existing Office of Broadband staff.

Table 1: Core Office of Broadband Team Members

Current/planned time	Full/part-	Position	Role
Current (1)	Full	Program Manager (1)	The Program Manager and Project Managers will support Office of Broadband staff with processing data requests; implementing BEAD activities; managing community outreach and stakeholder activities, events, and workshops; and ensuring that grantees and subgrantees complete deliverables in a timely manner and meet BEAD Program objectives, including alignment with the Digital Equity Planning Grant.
Planned (2)		Project Manager (2)	

Current (1)	Full	Accounting Technician	The Accounting Technician will be responsible for completing and submitting grant reports in coordination with the Finance Manager, Administrative Professional, Office Administrator, and Office of Broadband staff (as allowable and appropriate); preparing for any activities related to grant monitoring, audit, or compliance requests; processing invoices and other grant-related financial documents; and compiling, reconciling, and managing the submission of subgrantee reports and documents.
Planned (1)	Full	Administrative Professional	The Administrative Professional will be in charge of completing and submitting grant reports on behalf of, or in coordination with, the Finance Manager, Accounting Technician, Office Administrator, and Office of Broadband staff (as allowable and appropriate); archiving grant-related documents and documentation; preparing for, and supporting, any activities related to grant monitoring, audit, or compliance requests; and compiling, reconciling, and managing the submission of subgrantee reports and documents.

For efficiency and subject matter expertise, the Office of Broadband and Council also procure professional consulting services. Contracted partners include Bowles Rice LLP, providing legal assistance; The Thrasher Group, providing engineering consulting services; Tilson Technology Management, Inc., (Tilson) providing overarching broadband consulting services; and Ookla, providing speed testing data and analytics. Tilson has provided support to WVDED throughout the BEAD process and has assisted WVDED in the development and administration of the West Virginia Broadband Investment Plan, discussed in the subsequent section.

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2. Introduction

2.1 Key Priorities

West Virginia's leaders understand that broadband has moved beyond optional to essential. WVDED is guided by three core pillars as it strives to achieve universal broadband coverage and digital equity for West Virginia through the planning and implementation of Infrastructure Act funds. These are:



With these primary areas in mind, recent policy initiatives indicate that improving broadband and bridging the digital divide is one of the State's highest priorities. Broadband is the essential economic infrastructure that West Virginia needs to compete regionally, nationally, and globally.

The West Virginia Broadband Enhancement Council and the West Virginia Office of Broadband continue to advocate for greater connectivity. This mission is strongly supported by the Governor Justice, the West Virginia Legislature, West Virginia Department of Economic Development, West Virginia Department of Commerce, and numerous partners.

Nationally, West Virginia's Congressional representatives continue to support and enhance Federal programs for broadband development. With this shared vision firmly in place, State policy is implemented to address barriers as they are identified.

3. 2023 Highlight Overview

West Virginia stands ready to deliver on a historic opportunity to connect the State with high-quality broadband service through once-in-a-generation investments in its infrastructure and its people. Its readiness is the product of engagement and planning conducted throughout 2023. Years of preparation and foresight by the State have positioned WVDED to deliver infrastructure expansion on a historic level. WVDED is in the process of building on its record of expanding broadband service through the West Virginia Broadband Investment Plan by completing IJA grant program planning and beginning the transition to implementation.

3.1 Key Partnerships

Communication with and cooperation among West Virginia's Internet Service Provider (ISP) community is essential to the expansion of broadband in West Virginia. Joint ventures and innovative partnerships between public agencies, private companies and investor-owned utilities demonstrate the collaboration needed to improve connectivity. Notably, Internet Service Providers in West Virginia have dedicated matching funds in the amount of \$72,408,810 for a total investment of \$226,194,566 in broadband infrastructure projects throughout West Virginia across all projects announced to date.

The West Virginia Broadband Enhancement Council and the West Virginia Office of Broadband strongly support these efforts and will continue working to develop a more connected West Virginia. Working collaboratively, West Virginia is pursuing primary goals to:

- Encourage the development of broadband infrastructure in the State
- Evaluate and map the broadband infrastructure and service systems through an Interactive Mapping Program and other data collection methods
- Eliminate barriers to broadband infrastructure development within the State
- Engage and mobilize the expertise, funding, and partners to facilitate the creation of reliable and affordable broadband service, and
- Expand economic development and represent the State in matters related to broadband infrastructure development.

The West Virginia Office of Broadband and West Virginia Broadband Enhancement Council extend appreciation to the State's lead partners, Tilson Technology Management, Inc., and The Thrasher Group for significant contributions and commitment to broadband development in the State of West Virginia.

West Virginia's long-standing partnership with Ookla® continues to strengthen the State's growing ability to collect, analyze and visualize important broadband consumer speed test data.

4. West Virginia Broadband Mapping

West Virginia has a long-standing focus on broadband mapping and speed testing. Accurate data is the cornerstone of solid infrastructure planning and development. All known broadband investment has been tracked and mapped for several years. In addition, the WVDED staff administers several federal broadband development programs. As a result, WVDED can coordinate the administration of multiple federal programs. West Virginia's mapping initiative is continuously evolving and improving to identify served, underserved, and unserved areas more precisely in West Virginia.

4.1 West Virginia Broadband Map

The Office of Broadband utilized West Virginia's Statewide Addressing and Mapping System (SAMS) to develop the State's broadband mapping system. This mapping initiative was instrumental in efficiently launching the WVBIP. With the 2021 launch of the WVBIP, address mapping has paved the way for funding announcements made in early 2022.

In preparation of the BEAD program, West Virginia actively participated in the FCC Broadband Data Collection program by submitting over 100,000 locations. The foundation of this exercise is West Virginia's existing mapping system.

The following mapping resources are available to those who are interested in the data informing WVDED's plans for broadband expansion:

- Interactive broadband maps can be viewed at broadband.wv.gov.
- [ARPA Projects Dashboard](#): The ARPA Project Dashboard provides an interactive experience to view ARPA projects at the address level.
- [Broadband Availability Map](#): The West Virginia Broadband Availability Map identifies Internet Service Providers (ISPs) that have reported service to the Federal Communications Commission.
- [RDOF Map](#): The Rural Digital Opportunity Fund Map, identifies areas that have been funded by the Federal Communications Commission (FCC). Funding is shown by ISP.

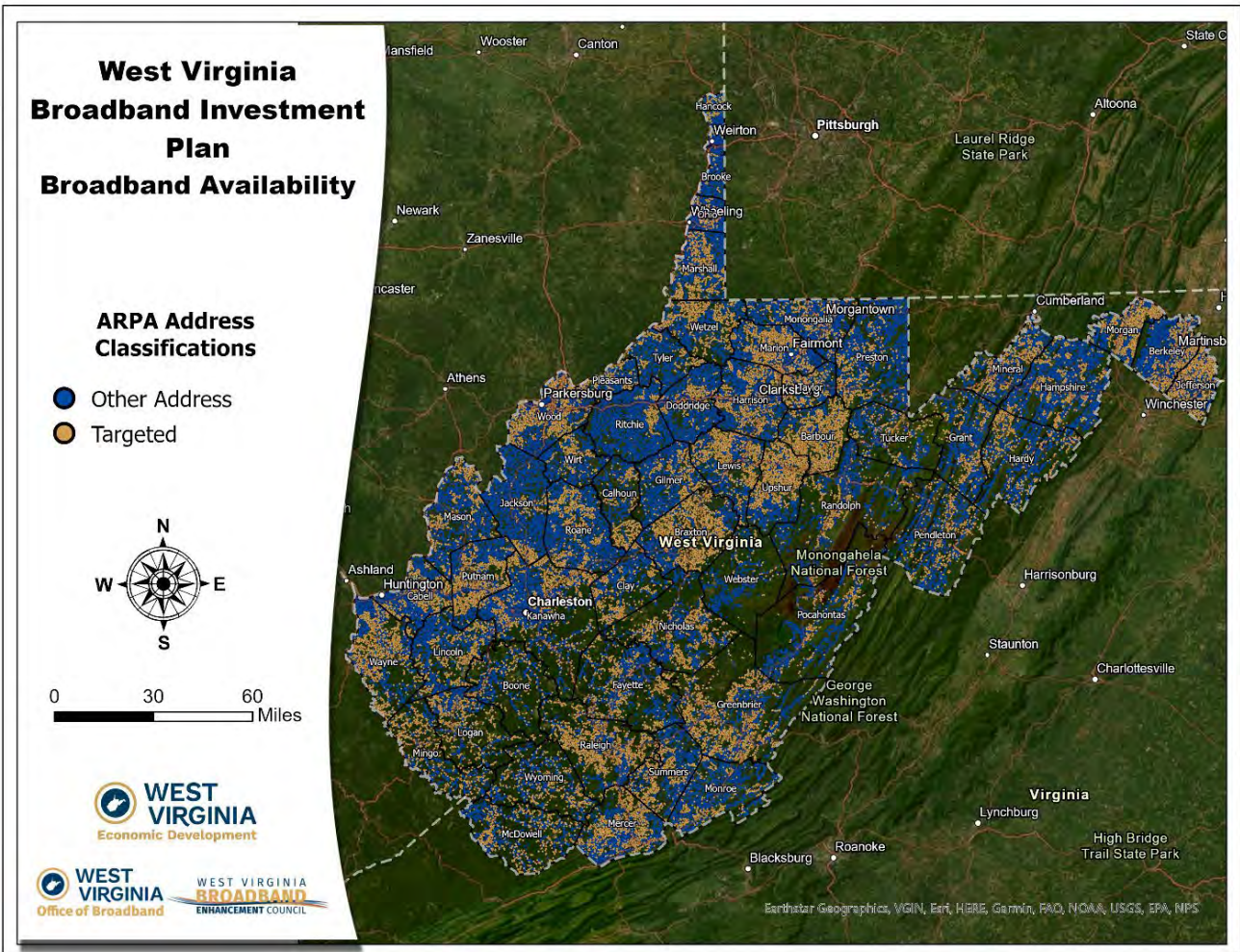
West Virginia mapping identifies broadband availability at the address level. Broadband availability classifications have been assigned to the SAMS address points that help identify what areas in the State are in need; this helps guide investment. The Target Area Map continues to act as the core mapping dataset for grant funding in the West Virginia Broadband Investment Plan.

Targeted Addresses

- Addresses that are *estimated* to have no current access to internet service with at least 25 Mbps download and 3 Mbps upload (25/3 Mbps) speeds, not counting access to satellite or mobile wireless internet, and
- Not in an area with a binding commitment to a state, federal, or local entity to deliver mass-market broadband service of at least 25/3 Mbps, not counting commitments to expand access to satellite or mobile wireless internet.

All other addresses not classified as **"Targeted"** are classified as **"Other."**

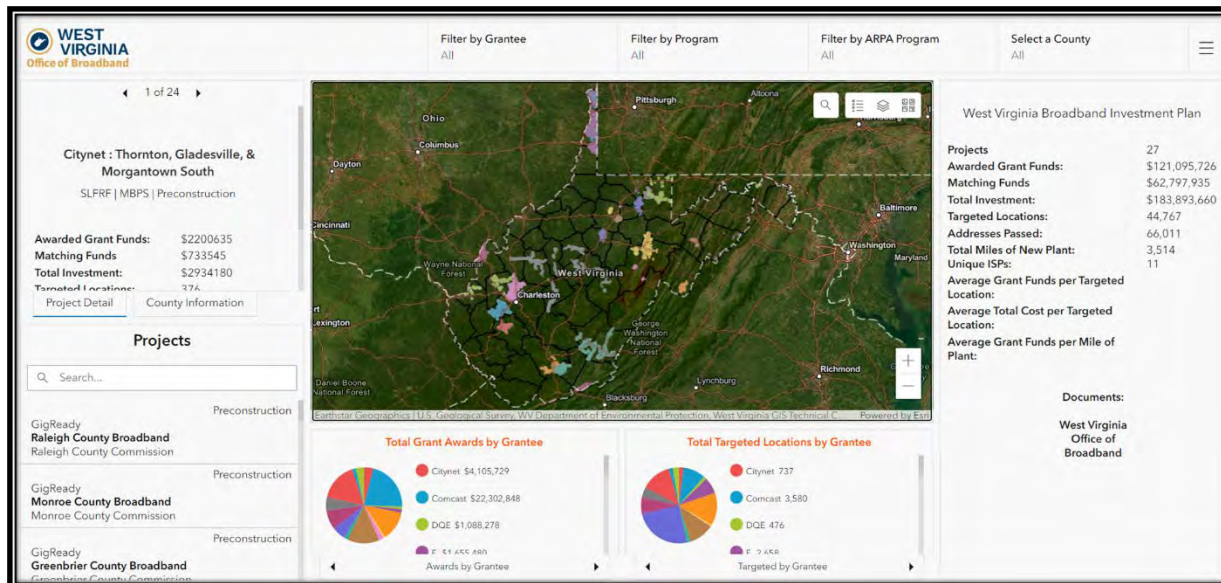
Figure 2: Target area addresses in West Virginia.



Project Dashboard Launched August 2023

To demonstrate awards announced under ARPA, the WVDED has created an interactive application for end users to learn more about project details. This dashboard is available at broadband.wv.gov and [ARPA Dashboard \(arcgis.com\)](https://arcgis.com).

Figure 3: ARPA project dashboard



West Virginia Broadband Availability Map

To demonstrate broadband availability, viewers can search the map to identify the availability of broadband services in their area. When selecting a location, the availability map will populate a list of ISPs that may be available to service the location.

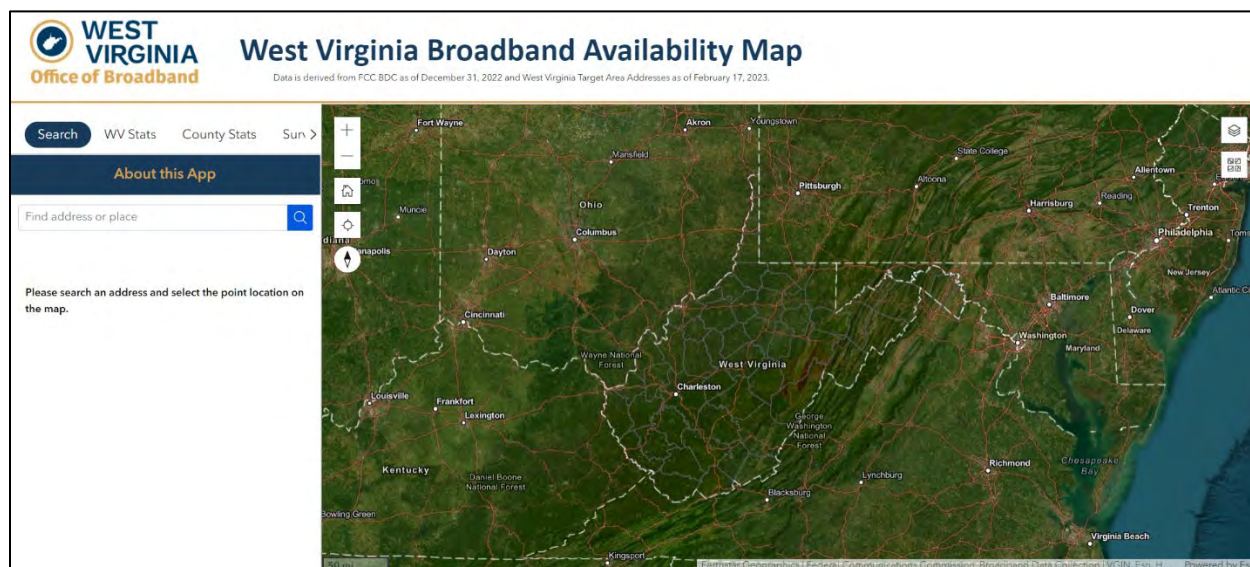
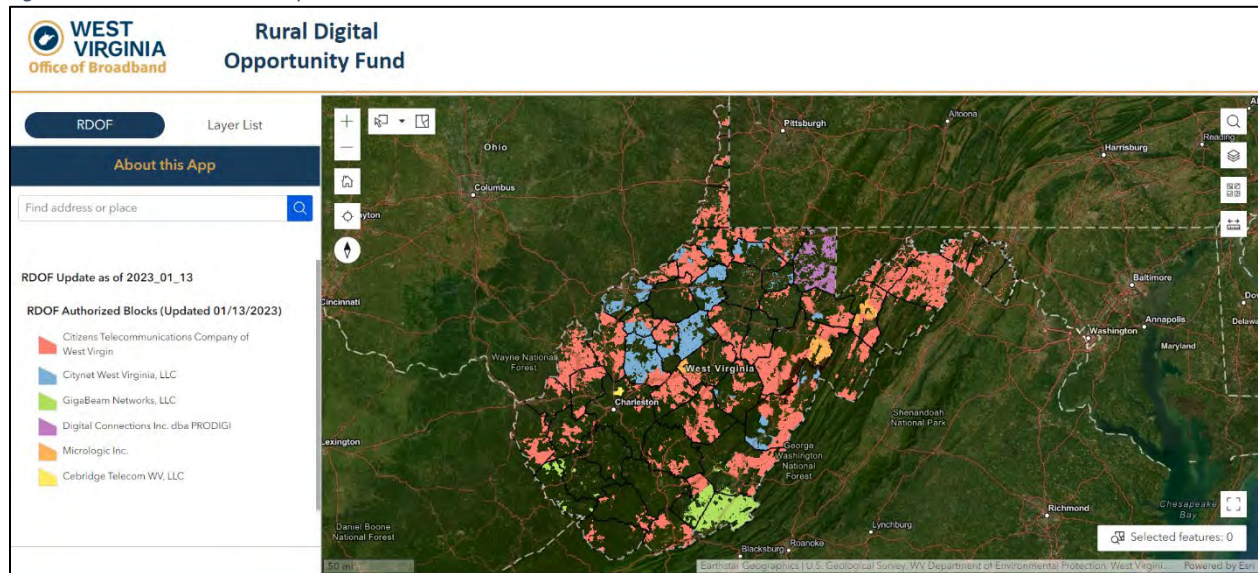


Figure 4: West Virginia broadband availability map.

Rural Digital Opportunity Fund (RDOF)

The RDOF map demonstrates the progress and availability of locations subsidies the FCC under the RDOF program.

Figure 5: RDOF interactive map.



4.2 FCC National Broadband Map, Data Collection, and Challenges

As mandated by Congress, the Federal Communications Commission (FCC) has now released Version 4 of the National Broadband Map. Since 2022, the map has displayed broadband service availability at individual locations instead of census blocks, lending to greater data accuracy. The FCC collects data for this map via a required bi-annual reporting schedule called the Broadband Data Collection (BDC) process. Throughout the BDC process, entities, including states, are given opportunities to challenge the accuracy of reported data.

To obtain data that would assist in developing the new map, the FCC contracted with CostQuest Associates, a broadband consulting firm, to provide a base layer map of all business and residential locations across the nation. This map is known as "the Fabric" because it weaves together numerous data sources to determine Broadband Serviceable Locations (BSLs), locations where fixed broadband is or can be installed, throughout the United States. According to the FCC, the Fabric is a "mix of aerial and satellite imagery, address databases, land and local tax records, and other sources." As required by the BEAD program, Fabric data was the sole method of determining BSLs under the BEAD program.

The Fabric dataset also categorizes Broadband Serviceable Locations by purpose and use. These location types fall into four categories:

Table 2: Fabric building types.

Category	Description
Residential	Dwellings, including single and multi-family homes.
Non-residential	All non-residential building types that can be considered BSLs, including businesses.
Mixed use	Both residential and non-residential.
Other	Although not formally defined by the FCC, this represents a collection of what are likely incorrectly classified. This data will likely be removed, reclassified, or otherwise changed in subsequent data releases.

Source: Calculated using December 31, 2022, National Broadband Data Collection Availability Data provided by the Federal Communications Commission

Residential buildings constitute the majority of Broadband Serviceable Location units in West Virginia: 79.1% of Broadband Serviceable Locations are solely residential, and an additional 3% of units are mixed use. Below, *Table 3* displays the distribution of Broadband Serviceable Location units by location type at a high level. The residential location type represents an extremely high proportion of all units in West Virginia.

Table 3: BSL Unit Counts

Location Type	BSL Units	
	Count	% of total units
Residential	821,149	79.1%
Non-residential	136,836	13.2%
Mixed use	79,932	7.7%
Other	761	<0.1%

Source: Calculated using December 31, 2022, National Broadband Data Collection Availability Data provided by the

The number of underserved and unserved BSLs determines the share of funds states and territories receive through the BEAD program. With comparatively low rates of broadband availability, the Fabric in West Virginia must be as accurate as possible—any residences and businesses that exist but are not included in the dataset result in fewer BEAD dollars in West Virginia. Analysis by WVDED and other nationwide broadband agencies determined that the Fabric is neither exhaustive nor accurate.¹

¹ FCC Chair Says it Received 1.1M Location Challenges to Broadband Map, Fierce Telecom, February 2023. <https://www.fiercetelecom.com/broadband/fcc-chair-says-it-received-11m-location-challenges-broadband-map>, FCC Launches New National Broadband Map; West Virginia Prepares to Challenge by January 13, 2023, WVDED: <https://broadband.wv.gov/news/fcc-launches-new-national-broadband-map-west-virginia-prepares-to-challenge-by-january-13-2023/>

In response, the FCC created a bulk challenge process. Following the Governor's directive that all West Virginians should be accurately represented on the National Broadband Map, the State of West Virginia challenged inaccurate information to the maximum extent provided by law: WVDED has issued 138,586 challenges to include new locations in the underlying Fabric, as well as 38,812 challenges to amend the FCC's broadband availability data.

WVDED encourages West Virginians to take part in this challenge process. To submit a Location Challenge to indicate that an address is missing, or an Availability Challenge to indicate that availability is incorrect, please follow the instructions below:

How to Find Your Address:

1. Visit <https://broadbandmap.fcc.gov/home>.
2. Using the search bar, type in the address you wish to review. The map should automatically zoom to your location.
3. After finding your location, a side-panel on the right-hand side of the screen will populate location and service information.
4. If your location is missing, ensure to select the building footprint or space of your location to submit a Location Challenge.

How to Submit a Location Challenge to the FCC:

1. After searching a location, select the building footprint or space to where the point location layer is missing.
2. Once the location is found, select "Challenge Location."
3. You will be required to fill out a form regarding information about your location.
4. After a challenge is submitted, you will receive a confirmation email informing you that it has been received by the FCC.
5. If a location is available on the map that includes inaccurate information, navigate to "Location Challenge" in the side-panel to complete the form.

How to Submit an Availability Challenge to the FCC:

1. After searching a location, select "Availability Challenge" in the side-panel.
2. Select the provider (ISP) you wish to challenge.
3. Complete the form to dispute the provider's claim on service availability.
4. Submit a separate challenge for each provider if multiple providers are listed incorrectly.

To develop a more accurate map of BSLs and their available broadband speeds, West Virginia encourages residents to complete location and availability challenges via web surveys and speed tests from their place of work or residence. WVDED and the Governor's Office collaborated to issue notifications through press releases, social media, and radio advertising to urge West Virginia residents to submit individual challenges.

WVDED will continue to challenge new releases of the Fabric and BDC dataset at six-month intervals to ensure the accuracy of the data.

4.2.1 National Broadband Map Implications

WVDED notes that the FCC map presents several confusing implications that may impede individual participation in the challenge process. For example, the NTIA BEAD program does not recognize satellite technology as a reliable broadband service; however, most addresses on the map are classified as served due to satellite. The below list is comprised of these complicating factors found in the FCC map.

- **Missing addresses:** The map includes a total of 902,699 broadband serviceable locations. The Office of Broadband has identified a minimum of 138,000 locations missing from the map.
- **100% Coverage:** The FCC represents broadband availability both at the address level and area based. Area based coverage consists of hexagon polygons represented by the percentage of coverage. Due to satellite coverage, most of West Virginia appears 100% served, both at the hexagon and address level. This representation of West Virginia is misleading to consumers.
 - BEAD NOFO does not correlate with the FCC National Broadband Map
- **Licensed Fixed Wireless:** Licensed fixed wireless is a technology eligible to deem an address as served. This technology that meets the minimum speed threshold of 25/3 Mbps may impact the overall count of unserved locations in the final map. Unlike cable and fiber, fixed wireless requires access to more data specifications, equipment, and time to properly conduct a field analysis.
- **Copper/DSL:** Out-dated legacy technology in West Virginia with many reported cases of failing infrastructure, low speeds, and inability to serve new customers.
- **Satellite:** – Starlink satellite technology shows to offer 834,009 addresses as served with 100/10
- **Consumer challenges:** Consumer challenges are sent to the ISPs for review.

5. West Virginia Broadband Investment Plan

The West Virginia Department of Economic Development, Office of Broadband, in coordination with the West Virginia Broadband Enhancement Council, will continue to administer the West Virginia Broadband Investment Plan (WVBIP), utilizing funds allocated to the State of West Virginia through Capital Projects Fund (CPF) and State and Local Fiscal Recovery Fund of the American Rescue Plan Act (ARPA), according to guidance published by the U.S. Treasury. The use of this funding has expanded broadband into unserved and underserved areas, aiding West Virginians in need of reliable, high quality broadband service.

The allocation of SLFRF and General Revenue funding provided a historic \$100 million investment that will supplement West Virginia's allocation of funds through the Capital Projects Funds (CPF), also part of the ARPA. The ARPA CPF includes \$136 million for broadband development in West Virginia.

The combination of SLFRF and CPF funding provides a total ARPA broadband investment of \$236 million in West Virginia. This funding represents a major transition to State-led broadband development through which states will oversee the investment of broadband funding.

The WVBP includes four distinct programs, three which are funded with ARPA dollars. These include GigReady, Major Broadband Project Strategies, and the LEAD programs. In addition, state funding is available for the Wireless Internet Networks (WIN) program. These existing programs complement the forthcoming infrastructure program developed for BEAD.

As of December 2023, Governor Jim Justice has over \$152 million of ARPA funds to 37 projects in West Virginia. This investment will deploy over 4000 miles of broadband infrastructure to connect over 47,000 targeted locations.

The geographic areas of the GigReady, Major Broadband Project Strategies, and LEAD programs are displayed in Figure 7 below. In line with the Governor's Billion-Dollar Broadband Strategy effort, the WVBP programs cover a larger geographic area than all but the federal RDOF program. LEAD, GigReady, and Major Broadband Project Strategies are described in detail below.

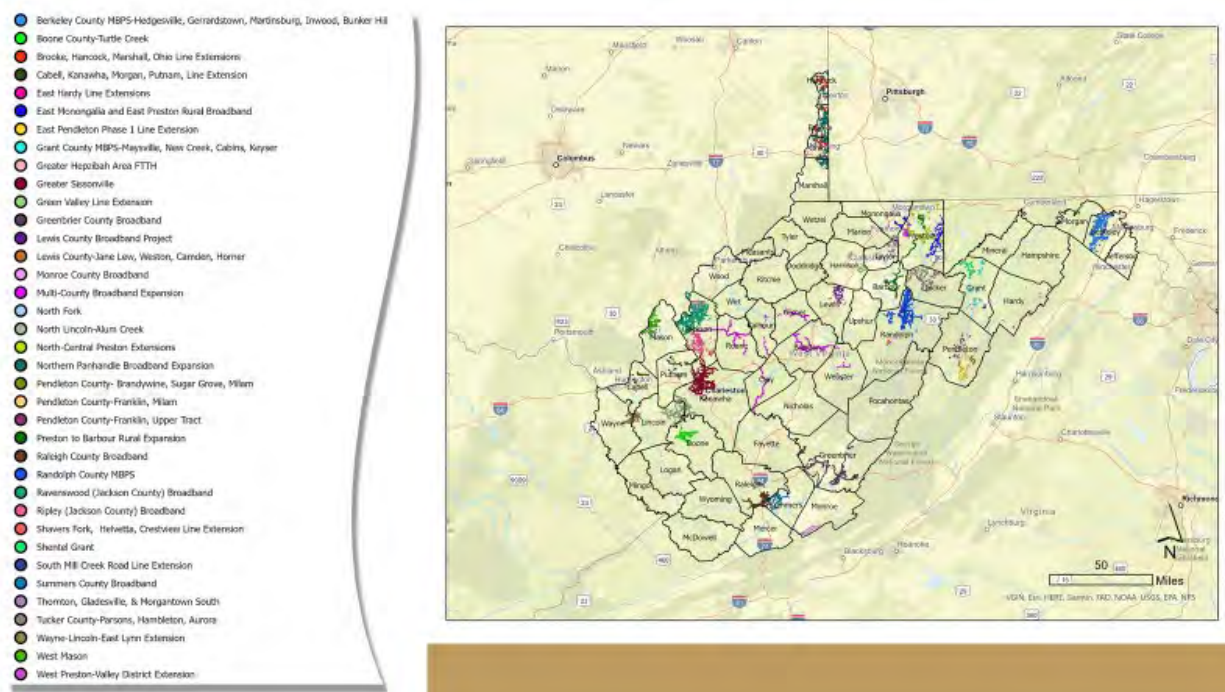


Figure 6: Funded areas of state-led WVBP ARPA programs.

5.1 Capital Projects Fund

The West Virginia Office of Broadband is the administrator of the American Rescue Plan Act (ARPA) Capital Projects Fund (CPF) for broadband development. The Office of Broadband designed programs to align with ARPA rules and guidance and other funds that may become available for broadband development in West Virginia. The U.S. Treasury approved West Virginia's plan for utilization of CPF funding on June 7, 2022. West Virginia was among the first four states in the nation to be approved for funding, along with Louisiana, New Hampshire, and Virginia.

The CPF program provides \$10 billion nationwide for eligible governments to carry out critical capital projects that directly enable work, education, and health monitoring, including remote options, in response to the COVID-19 public health emergency. The CPF Guidance, available at treasury.gov/CPF, describes how governments may access and use these funds.

According to the U.S. Treasury: “The focus of the Capital Projects Fund on the continuing need for connectivity in response to the COVID-19 pandemic complements the broader range of uses, including for broadband infrastructure, of the American Rescue Plan’s separate \$350 billion Coronavirus State and Local Fiscal Recovery Funds.”

As of December 2023, Governor Jim Justice has awarded over \$94 million in CPF funds to 17 projects. Table X below demonstrates Key Performance Indicators awarded across

Table 4: Capital Projects Fund awards.

Program	Number of Awarded Projects	Counties	New Miles of Plant Planned	Total Targeted Addresses Funded	Total Addresses
LEAD	7	7	902.5	10,352	15,301
MBPS	6	8	1,066.5	9,002	12,471
GigReady	4	14	559.4	11,863	21,331
Total	17	27	2,528.4	31,217	49,103

5.2 State and Local Fiscal Recovery Fund

While the Capital Projects Fund is specifically for broadband infrastructure, [State and Local Fiscal Recovery Funds](#) (SLFRF) can also be dedicated to broadband development. Recognizing this potential partnership, the WVBIP provides an opportunity to coordinate state and local ARPA funding. The State Fiscal Recovery Fund (SFRF) includes \$1,355,489,988 allocated to West Virginia. The Local Fiscal Recovery Fund includes funding for cities, counties, and non-entitlement entities in the following amounts:

- \$348,103,547 for 55 West Virginia Counties,
- \$168,188,715 for Nine West Virginia Cities, and
- \$162,490,814 for Non-Entitlement Entities

In October 2021, the West Virginia Legislature created the Broadband Development Fund and allocated \$90 million of SLFRF funds and \$10 million in General Revenue funds to this initiative. This total was added to CPF funding for a total investment of \$236 million. The additional SLFRF funds will be dedicated to the existing the LEAD, GigReady, and MPBS programs.

The \$10 million allocation from General Revenue funds has been dedicated to the Wireless Internet Networks (WIN) program. The WIN program announced two awards in 2023.

As of December 2023, Governor Jim Justice has awarded over \$58 million in SLFRF funds to 20 projects. Table 5 below demonstrates Key Performance Indicators awarded across

Table 5: State and Local Fiscal Recovery Fund awards.

Program	Number of Awarded Projects	Counties	New Miles of Plant Planned	New Miles of Plant Completed	Total Targeted Addresses Funded
LEAD	13	19	818.9	86.53	7,845
MBPS	6	9	604.2	0	6,498
GigReady	1	2	106.4	0	1,677
Total	20	25	1,529.4	86.5	16,020

5.3 West Virginia Broadband Development Fund

With the passage of House Bill 339 in 2021, the West Virginia Legislature created the Broadband Development Fund in the State Treasury under West Virginia Code §31G-1A-7. According to this Legislation, the fund shall be administered by the Secretary of the West Virginia Department of Economic Development (WVDED) and shall consist of all moneys made available for the purposes of this article from any source, including, but not limited to, all gifts, grants, bequests or transfers from any source, any moneys that may be appropriated to the fund by the Legislature, and all interest or other return earned from investment of the fund.

The Broadband Development Fund may only be used for the following purposes:

- (1) Expenses for the administration of the Office of Broadband;
- (2) Line extension advancement and development projects, including expansion of existing fiber and cable networks;
- (3) Major broadband project strategies, including new networks or major expansions of existing networks;
- (4) GigReady incentive projects, including a state incentive for ISP and local governments and organizations to pool some of their federal American Rescue Plan Act allocations or other local funding; and
- (5) Wireless Internet Networks, including expansions or upgrades of existing fixed wireless networks.

The WVDED Office of Broadband has identified preliminary allocations under the West Virginia Broadband Investment Plan as shown below. These preliminary allocations were adjusted based upon demonstration of need with the WVBIP programs.

Preliminary SLFRF Funding Allocations

Program	LEAD	GigReady	MBPS	*WIN
Funding	\$10 Million	\$40 Million	\$40 Million	\$10 Million
Eligible Applicants	ISPs Operating Cable or Fiber Network	County, Municipal Governments, EDCs, EDAs, RPDCs, Private Partnerships Strongly Encouraged	ISPs Local Governments and Affiliated Organizations	ISPs with Existing Wireless Network *Subject to ARPA Rules
Speed Requirements	At Least 100/20, scalable to 100/100 Mbps 1000/500 Mbps Preferred	At Least 100/20, scalable to 100/100 Mbps 1000/500 Mbps Preferred	At Least 100/20, scalable to 100/100 Mbps 1000/500 Mbps Preferred	At Least 25/3, preferably 100/20 Mbps
Match Requirements	At Least \$500 per Passed Premise	At Least 25 Percent of Project Cost	At Least \$500 per Passed Premise	At Least \$400 per Covered Premise

5.4 WVBIP Programs

Under the West Virginia Broadband Investment Plan (WVBIP), the West Virginia Office of Broadband has established four grant programs for broadband infrastructure development. Each program maximizes the potential of broadband availability and adoption in West Virginia. The programs are designed to meet the goals established in the West Virginia Broadband Enhancement Council's 2020-2025 Five-Year Plan, the West Virginia Internet For All Five-Year Plan, and align with state and federal requirements. The WVBIP will also incorporate State funding, and other federal funds allocated or available to West Virginia. The WVBIP may be expanded through the addition of new or modified programs.

- Complete WVBIP program resources are available at: <https://broadband.wv.gov>.
- WVBIP Target Area Maps are available at: <https://wv-capitol-wvbroadband.hub.arcgis.com>.

The WVBIP contains four well defined infrastructure grant programs, each designed to specific broadband development needs. Programs launched in 2021 include:

1. [LEAD: Line Extension Advancement and Development](#)
2. [GigReady: Technical Assistance or Implementation Phases](#)
3. [MBPS: Major Broadband Project Strategies](#)
4. [WIN: Wireless Internet Networks](#)

Each WVBIP program emphasizes last mile connections. According to U.S. Treasury guidelines, each program places an emphasis on locations without access to reliable wireline service of 25/3 Mbps. Funded projects must be capable of delivering, or be scalable to deliver, symmetrical 100 Mbps service while encouraging the deployment of fiber networks.

In keeping with West Virginia's emphasis on public-private partnerships, the programs encourage private investment in cooperation with local development initiatives. To promote greater utilization of

broadband service in West Virginia, the programs require participation in federal affordability programs and encourage the availability of a low-cost service.

Under LEAD and GigReady, the need for broadband expansion is analyzed at the individual address level. Conversely, the MBPS data focuses on the need for broadband expansion within eligible service areas as determined by the Office of Broadband. West Virginia's broadband maps can be found at:

<https://broadband.wv.gov/>

Internal Controls

The WVDED has established strong internal controls that include network validation, field inspections and field verifications to ensure that networks perform as designed. Grantees may not begin construction until all permitting, and network design planning is completed. Essential items for receiving a NTPC include:

- Submit Budget Amendment Form
- Submit Project Information to WVDOH District Office for Prior Review
- Preliminary Pole Attachment Data submitted to Pole Owner(s)
- Preliminary Engineering Design submitted to WVDOH and applicable jurisdictions, including counties and/or municipalities
- Final Engineering Design Submitted to WVDOH; Bridge Alternatives Analysis as applicable
- Final Engineering Design Submitted to WVDED
- Complete Environmental Review for WVDOH ROW Access
- Begin Acquisitions and Easements as applicable
- Complete Dig Once Notifications as applicable
- Contractor Debarment Review Certification - Sam.gov
- Complete all Easements, Land Acquisitions, ROWs, and Pole Attachment Agreements
- Submit WVDOH MM109 Permit Application and Applicable Bonds:
 - Bid Bond
 - Performance Bond
 - Payment Bond
- Submit copies of all applicable permits, agreements, and clearances to WVDED (WVDOH Permit and Local Permit(s) Required).
- Grantees are required to spend matching funds in entirety prior to receiving a grant disbursement.

Figure 7: ARPA project sequence.



5.4.1 Line Extension Advancement and Development (LEAD)

The Line Extension Advancement and Development (LEAD) program awards competitive grants to internet service providers to expand their existing fiber and cable networks. During the first round of LEAD, applications were accepted in multiple batches from November 2021 through January 2022, with funding decisions made through early 2022. LEAD program projects must be completed within 12 months of being awarded, and projects in other categories must be completed within 24 months of being awarded. All projects will be subject to continuous progress audits throughout their implementation to ensure early identification and correction of problems. For the second round of LEAD (i.e., LEAD2), WVDED accepted applications from February 2023 to March 2023.

The third round of LEAD is currently underway with announcements anticipated to be made in January of 2023. The State has awarded over \$53,275,390 to twelve LEAD grantees. With grantees providing a total of \$16,561,117 in additional matching funds, \$69,836,507 was invested into broadband through the LEAD program.

5.4.2 GigReady Incentive Program (GigReady)

The U.S. Treasury allocated more than \$500 million from the ARPA Local Fiscal Recovery Fund to local governments for public improvement projects. Many of these local governments chose to use these funds to invest in local broadband expansion. The GigReady program provides matching state funds for local governments that develop projects to pool their broadband investments. The State accepted applications on a rolling basis beginning in November 2021 and announced decisions throughout 2022.

Public-private partnerships in broadband infrastructure represent a critical alliance in bridging the digital divide and enhancing connectivity, especially in unserved and underserved rural areas. By combining the efficiency and innovative capabilities of the private sector with the regulatory and financial support of public entities, these partnerships can effectively address the challenges of high infrastructure costs and logistical complexities associated with broadband deployment.

Such collaborations not only expedite the rollout of high-speed internet services but also ensure that these services are both accessible and affordable for a wider population. This synergy is essential for fostering digital inclusion, supporting economic growth, and enabling communities to benefit from advancements in education, healthcare, and business, driven by reliable and fast internet connectivity. The success of these partnerships often hinges on a shared vision and commitment to serve community needs, making them a valuable model for achieving widespread digital connectivity.

The State has awarded \$41,389,105 to five GigReady grantees. With grantees providing a total of \$13,796,368 in additional matching funds, \$55,185,473 was invested into broadband through the GigReady program.

5.4.3 Major Broadband Project Strategies (MBPS)

The Major Broadband Project Strategies Program (MBPS) is designed for projects that can transform broadband availability across a significant extent of coverage in West Virginia. The Program will fund larger scale projects designed to serve large numbers of Targeted addresses.

MBPS focuses on larger projects than LEAD that may consist of new networks or major enlargements of existing networks. Compared to LEAD that focuses on funding for projects at the address level, MBPS defines projects by Eligible Service Areas. The mapping for Eligible Service Areas (ESAs) classified by city locations.

The Target Address map provides an estimate of the unserved addresses within Eligible Service Areas that are not part of another funded project. Winning projects will have an obligation to provide service to any unserved address within the awarded Eligible Service Areas.

Eligible applicants include:

- a. Private for-profit or non-profit corporations
- b. Local governments
- c. Economic Development Authorities
- d. Economic Development Corporations
- e. Regional Planning and Development Councils

The State has awarded \$58,191,311 to MBPS grantees. With grantees providing a total of \$41,824,675 in additional matching funds, \$100,015,986 was invested into broadband through the MBPS program.

5.4.4 Wireless Internet Networks

The State Legislature allocated approximately \$10 million to the WIN Program to fund extensions or upgrades of existing last mile wireless broadband networks that can be constructed quickly. WVDED provided interested applicants with a set of targeted state parks and addresses, and its prioritized

projects that benefited both at the same time. The application period ran from May to June 2022. As of July 2023, WVDED has provided nearly \$1 million in funding for two projects.

U.S. Cellular received \$679,950 from the West Virginia Legislature's Broadband Development Fund for the Coopers Rock State Park Project and \$250,000 for the Watoga State Park Planning Grant.

5.4.5 Guide to Reporting and Compliance Obligations for West Virginia ARPA Broadband Investment Plan Grant Recipients

To assist project teams in the implementation of federally funded projects, the West Virginia Office of Broadband has issued an [ARPA-Subrecipient-Compliance-and-Reporting-Guidance-Documents-for-Awardees](#). This document was developed in cooperation with the West Virginia Broadband Enhancement Council and Tilson Technology Management, Inc. This Guide to Reporting and Compliance Obligations for West Virginia ARPA Broadband Investment Plan Grant Recipients covers three different programs administered by the West Virginia Department of Economic Development, Office of Broadband (WVDED). These programs are the GigReady Incentive Program (GigReady), the Line Extension Advancement and Development Program (LEAD), and the Major Broadband Project Strategies Program (MBPS).

The document is intended as a guide, not as a substitute for a thorough knowledge of state and Federal laws and regulations referenced in this document. This document may be updated to more fully incorporate requirements. In the event of any discrepancy, Federal regulations will prevail. The Grantee is responsible for compliance with the most current and stringent of any applicable local, State or Federal law or regulation(s).

5.5 2023 Project Announcements

Governor Justice has issued project approval announcements throughout 2022 and 2023. Announced projects will result in over 4,000 miles of new fiber infrastructure, providing high-speed broadband access to more than 47,000 targeted homes and businesses. Projects announced through 2023 are funded by the American Rescue Plan Act (ARPA). West Virginia has awarded \$152 million in ARPA funding to date, including:

- \$95 million in Capital Projects Funds, and
- \$58 million in SLFRF funds

As critical partners in West Virginia's broadband expansion initiative, Internet Service Providers in West Virginia have dedicated matching funds in the amount of \$72 million for a total investment of more than \$225 million in 37 broadband infrastructure projects throughout West Virginia across all projects announced to date. Governor Justice has issued project approvals on a rolling basis throughout 2023, as detailed below:

- a. **LEAD Announcements:** Governor Justice has announced the approval of 20 applications under the Line Extension, Advancement and Development (LEAD) Program.

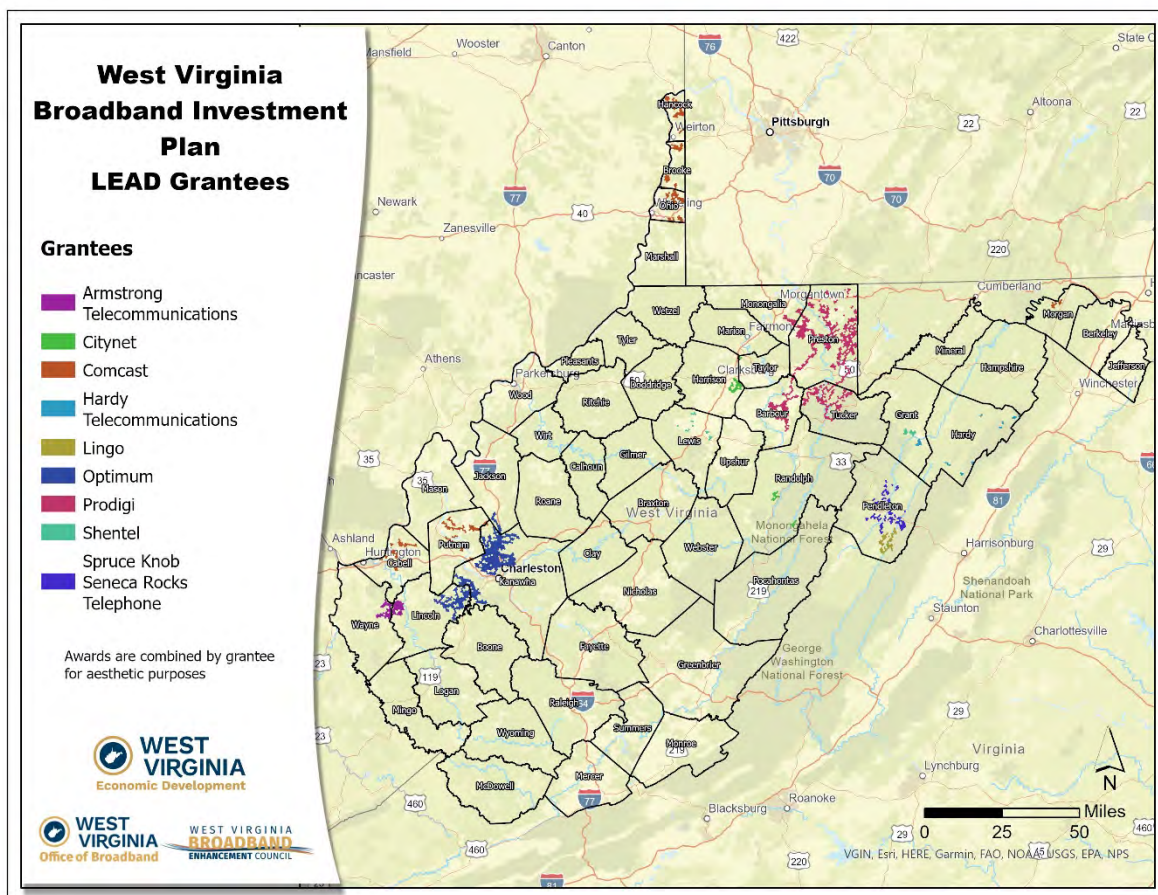
The 20 LEAD awards to date represent an allocation of \$53,275,390, through which companies will construct 1,721 miles of fiber, serving 18,197 targeted locations in West Virginia. These projects will leverage an additional \$ \$16,561,117 in match contributions for a total infrastructure investment of \$69,836,507.

LEAD Applicant	LEAD Project Name	Amount	Matching Funds	Targeted Addresses	Fiber Miles
1. Citynet	Green Valley Line Extension	\$1,191,535	\$188,500	265	26
2. Citynet	Shavers Fork, Helvetia, Crestview Line Extension	\$713,560	\$162,500	96	10
3. Comcast	Brooke, Hancock, Ohio, Marshall Line Extensions	\$4,721,590	\$2,064,978	1,462	59
4. Comcast	Cabell, Kanawha, Morgan, Putnam Line Extensions	\$2,885,246	\$1,111,628	716	119
5. Hardynet	East Hardy Line Extension	\$183,241	\$64,800	58	10
6. Hardynet	South Mill Creek Line Extension	\$416,984	\$140,000	117	5
7. Lingo-MGW Networks	East Pendleton Phase I South Mill Creek	\$2,257,834	\$297,000	86	31
8. Prodigy	Northcentral Preston	\$4,592,645	\$870,500	1,203	93
9. Prodigy	West Preston-Valley District	\$3,840,913	\$803,500	1,455	60
10. Shentel	North Fork, Sunset Drive	\$420,630	\$238,500	141	9.5

11. Altice	Greater Sissonville	\$4,000,000	\$6,062,482	5,895	538
12. Altice	North Lincoln-Alum Creek	\$2,000,000	\$2,304,283	3,442	230
13. Prodigy	East Monongalia and East Preston Rural Broadband	\$4,362,723	\$661,500	799	103.39
14. Armstrong Telecommunications, Inc.	Wayne-Lincoln-East Lynn Extension	\$3,400,931	\$399,500	551	56.15
15. Prodigy	Tucker County-Parsons, Hambleton, Aurora	\$7,906,924	\$111,000	644	140.59
16. Prodigy	Preston to Barbour Rural Expansion	\$6,591,470	\$722,500	803	135.07
17. Spruce Knob	Pendleton County-Franklin, Milam	\$1,254,945	\$77,000	83	22.66
18. Spruce Knob	Pendleton County-Franklin, Upper Tract	\$1,277,412	\$113,400	123	29.91
19. Spruce Knob	Pendleton County-Brandywine, Sugar Grove, Milam	\$888,620	\$91,700	114	18.81
20. Shentel	Lewis County-Jane Lew, Weston,	\$398,189	\$75,846	144	6.95

	Camden, Horner				
LEAD TOTALS		\$53,275,390	\$16,561,117	18,197	1,721.35

Table 6: LEAD awards announced to date.

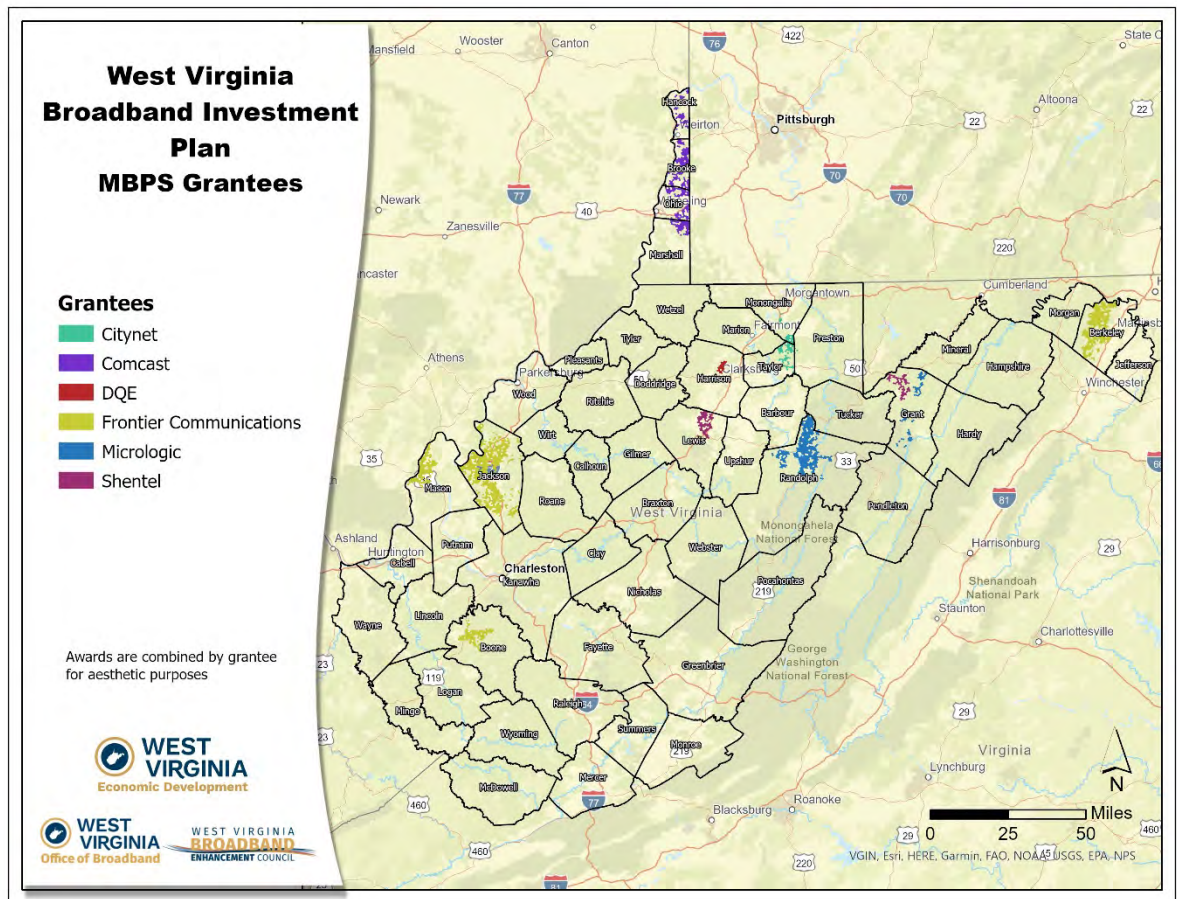


- b. **MBPS Announcements:** Governor Justice has announced the approval of over \$45.8 million in grant funding for twelve broadband infrastructure projects across the state through the Major Broadband Project Strategies (MBPS) program.

The 12 MBPS awards to date represent an allocation of \$58,191,311, through which companies will construct 1,670 miles of fiber, serving 15,500 targeted locations in West Virginia. These projects will leverage an additional \$41,824,675 in match contributions for a total infrastructure investment of \$100,015,986.

MBPS Applicant	MBPS Project Name	Amount	Matching Funds	Targeted Addresses	Fiber Miles
1. Citynet	Thornton, Gladesville, Morgantown South	2,200,635	733,545	376	86
2. Comcast	Northern Panhandle Broadband Expansion	14,726,012	6,265,607	1,402	304
3. DQE	Greater Hepzibah Area FTTH	1,088,276	373,000	650	15
4. Frontier	Boone County-Turtle Creek	671,385	1,993,688	1,566	83
5. Frontier	West Mason	1,039,734	3,447,586	1,398	113
6. Shentel	Lewis County Broadband Expansion	1,119,113	466,500	457	27
7. Micrologic	Randolph County MBPS	13,977,410	2,979,000	3,991	282
Frontier	Ravenswood (Jackson Co) Broadband	\$7,642,581	\$7,642,581	1,635	238.00
Frontier	Ripley (Jackson Co) Broadband	\$5,471,280	\$3,921,793	899	144.00
Frontier	Berkeley County MBPS-Hedgesville, Gerrardstown, Martinsburg, Inwood, Bunker Hill	\$6,326,283	\$11,748,811	2,531	285.95
Micrologic	Grant County MBPS-Maysville, New Creek, Cabins, Keyser	\$2,868,035	\$956,012	266	55.14
Shentel	Grant County MBPS-Gormanian, Bismarck, Mount Storm	\$1,116,204	\$1,791,853	809	41.00
MBPS TOTALS		\$34,822,567	\$16,258,926	9,840	910

Table 7: MBPS awards announced to date.



- c. **GigReady Announcements:** Governor Justice has announced the approval of over \$41 million in grant funding for five broadband infrastructure projects across the state through the Major Broadband Project Strategies (MBPS) program.

The 5 GigReady awards to date represent an allocation of \$41,389,106, through which companies will construct 665 miles of fiber, serving 13,540 targeted locations in West Virginia. These projects will leverage an additional \$13,796,368 in match contributions for a total infrastructure investment of \$55,185,473.

GIGREADY Applicant	MBPS Project Name	Amount	Matching Funds	Targeted Addresses	Fiber Miles
1. Greenbrier County Commission	Greenbrier Co. Broadband Expansion	12,940,988	4,313,663	5,316	177

Figure 9: MBPS awards grouped by grantee.

2. Monroe County Commission	Seneca Trail-Green Valley Road	1,797,904	599,301	633	30
3. Raleigh County Commission	Ghent Fiber Expansion	5,889,198	1,963,066	1,677	106
4. Roane County Economic Development Authority	Multi-County Broadband	17,057,869	5,685,956	4,878	287
5. Summers County Commission	Mountview to Bellepoint	3,703,147	1,234,382	1,036	65
GIGREADY TOTALS		\$41,389,106	\$13,796,368	13,540	665

Table 8: GigReady awards announced to date.

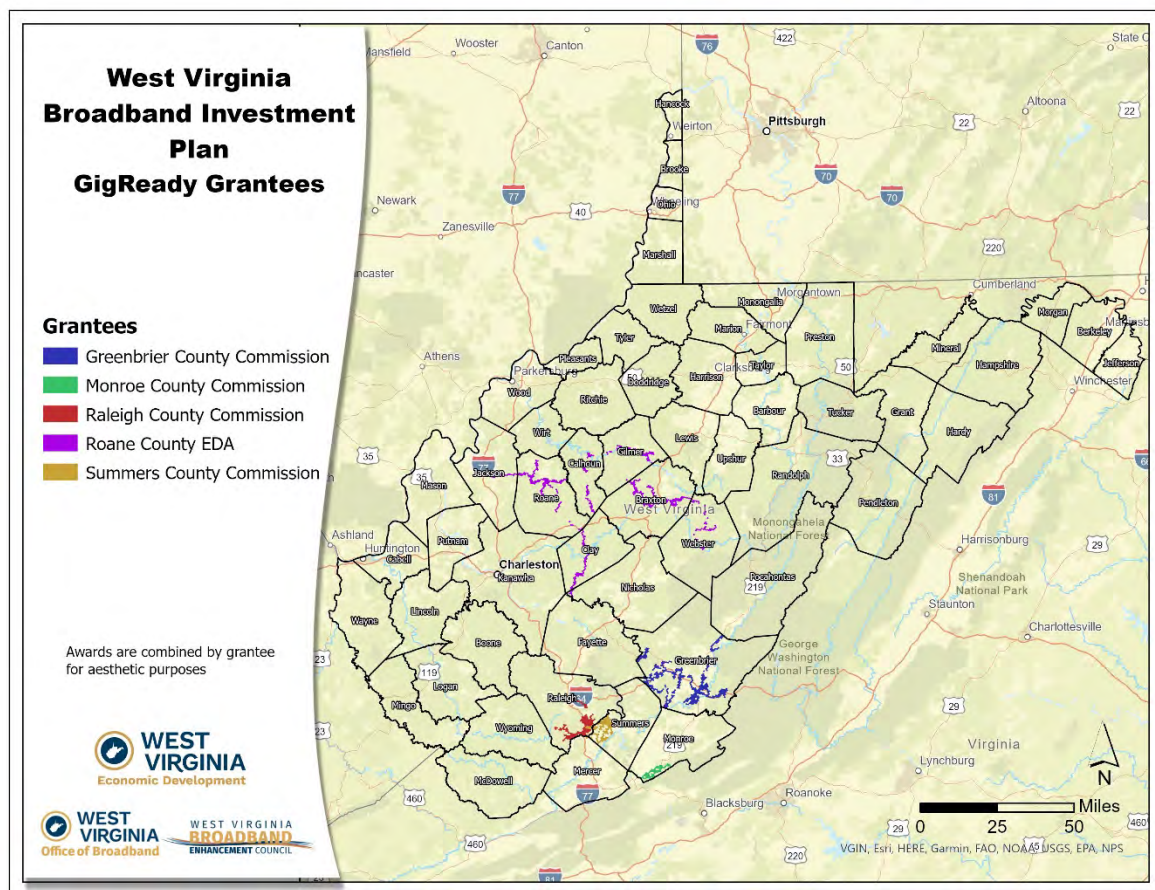
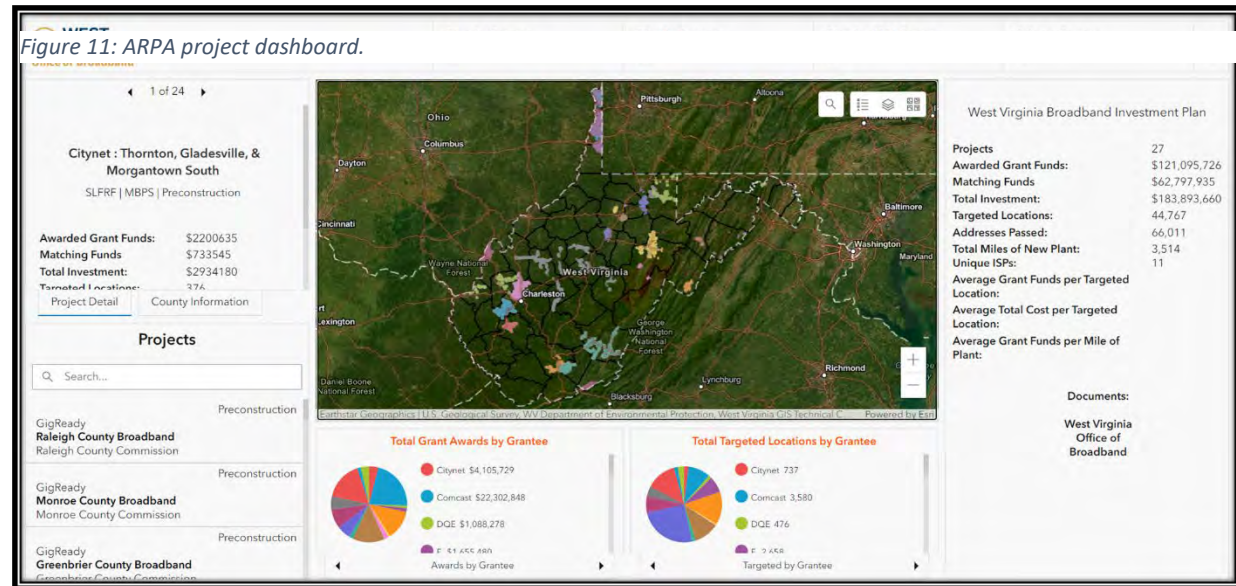


Figure 10: GigReady awards grouped by grantee.

Project Dashboard Launched August 2023

To demonstrate awards announced under ARPA, the WVDED has created an interactive application for end users to learn more about project details. This dashboard is available at broadband.wv.gov and [ARPA Dashboard \(arcgis.com\)](https://arcgis.com).



2023 ARPA Construction Forecast

The WVDED post-award grant process is structured by distinct phases designed to ensure that projects will provide broadband connectivity upon completion. Grantees may not move forward to each distinct phase of the program until receiving an official written notice from the WVDED. Those phases include the Notice to Proceed with Exempt Activities (NTPE), the Notice to Proceed with Construction (NTPC), and the Notice of Completion and Request for Close-Out (NOC).

Five ARPA projects are currently under construction, two of which have already been completed. An additional seven projects are currently in design phase and were expected to be authorized to begin construction near the end of December 2023, as noted in the table below. However, project teams continue working through required permitting at the time of this report. The main source of permitting delay is attributed to the pole attachment permitting process.

Table 9: ARPA construction forecast.

ARPA Projects - Construction Forecast				
Grantee Name	Funding Source	Targeted Addresses	Approximate Mileage	Construction Status

Citynet LLC Green Valley Line Extension	SLFRF	265	26	Complete
Citynet LLC Shavers Fork, Helvetia, and Crestview Extension	SLFRF	96	14	Under Construction
Comcast Cable Communications LLC Brooke, Hancock, Ohio Line Extension	SLFRF	1462	132	Q4 2023
Comcast Cable Communications LLC Cabell, Kanawha, Morgan, Putnam Line Extension	SLFRF	716	59	Q4 2023
Digital Connections Inc. DBA, Prodigy Northcentral Preston Network Extension	SLFRF	1203	93	Under Construction
Digital Connections Inc. DBA, Prodigy West Preston-Valley District Extension	SLFRF	1455	60	Under Construction
Digital Connections Inc. DBA, Prodigy East Monongalia and East Preston Rural Broadband	SLFRF	799	103	Q4 2023
Hardy Telecommunications Inc. East Hardy Line Extension Project	SLFRF	58	10	Complete
Hardy Telecommunications Inc. South Mill Creek Road Line Extension	SLFRF	117	5	Q4 2023
Frontier, West Virginia Inc. Boone County - Turtle Creek	SLFRF	1566	83	Q4 2023
Frontier, West Virginia Inc. West Mason	SLFRF	1092	108	Q4 2023
MGW Networks LLC, DBA Lingo Eastern Pendleton, Phase 1 Extension	SLFRF	86	31	Q4 2023
Roane EDA Multi-County Broadband Expansion	CPF	4878	287	Q4 2023
Micrologic Inc. Randolph County Fiber Deployment	CPF	3991	282	Q4 2023

5.6 Speed Data

Following the lead of the West Virginia Broadband Enhancement Council, the WVDED continues to champion speed testing. The West Virginia Broadband Enhancement Council has licensed Speedtest® by Ookla®² speed test data for West Virginia every year since the Council's inception in 2016. The Council values speed testing because it provides consumers with a voice and a method for reporting broadband data.

Ookla® performance data plays a pivotal role in evaluating broadband performance in West Virginia, offering valuable insights into the state's digital infrastructure. By measuring key metrics such as download and upload speeds, and latency, these tests provide a clear, quantitative assessment of internet

² "Ookla is a global leader in connectivity intelligence and network insights. For almost two decades, Ookla has set the industry standard for both fixed and mobile network testing and analysis. From its world-renowned Speedtest and Dnswat platforms to an accompanying and growing suite of end-to-end enterprise solutions, Ookla's mission is to measure, understand, and help improve connected experiences." Ookla, "About", <https://www.ookla.com/about>.

connectivity across different regions. For policymakers, service providers, and consumers alike, the data supports data-driven decisions for identifying areas with inadequate broadband service, guiding infrastructure investments, and benchmarking improvements over time.

In West Virginia, where topographical challenges and rural expanses pose unique obstacles to broadband deployment, these tests are especially important. They help in ensuring that efforts to expand and upgrade broadband networks are effectively targeted, thereby enhancing the digital inclusivity of communities and supporting the state's overall economic and technological growth. Moreover, the transparency and ease of access to Ookla's data empower consumers to make informed decisions about their internet service providers, fostering a competitive and quality-focused broadband market.

Performance data has been instrumental in participating in the FCC's Broadband Data Collection (BDC) challenge process. This initiative by the FCC aims to create a more accurate and comprehensive map of broadband coverage across the United States. By leveraging the granular data from performance data, the Office actively contributed to this national effort by challenging and verifying the accuracy of the FCC's broadband deployment data.

The data provided insight into areas where official records may not reflect the actual user experience. The speed test results can highlight discrepancies in reported coverage, speeds, and service quality, enabling a more truthful representation of broadband accessibility in the state. This data-driven approach ensures that federal funding and policy decisions for broadband expansion are based on realistic and current information, ultimately leading to more effective strategies to eliminate coverage gaps and enhance internet performance in underserved regions. The active participation in the BDC challenge process, fueled by reliable data is a vital step towards achieving equitable broadband access for all communities in West Virginia.

In mid-2023, the Broadband Enhancement Council approved the licensing of Ookla's Mobility data, including Cell Analytics and Tower Source Data. This license was executed in anticipation of the FCC's Mobility Fund Phase II, and to assist the West Virginia Office of Broadband with any state challenges to reported mobile data.

West Virginians typically take about one million speed tests per year through the State's speed test portal located at <https://broadband.wv.gov>, which includes a custom State survey, or directly through the Speedtest apps for iOS and Android as well as on the web via Speedtest.net at <https://www.speedtest.net>. Analyzing performance results has allowed for West Virginia to determine area in need of broadband investment, improve mapping through participating in formal challenge processes, and demonstrate growth. Figures 12 and 13 demonstrate the improvement in broadband in just one year.

Figure 13: Performance results for 2022.

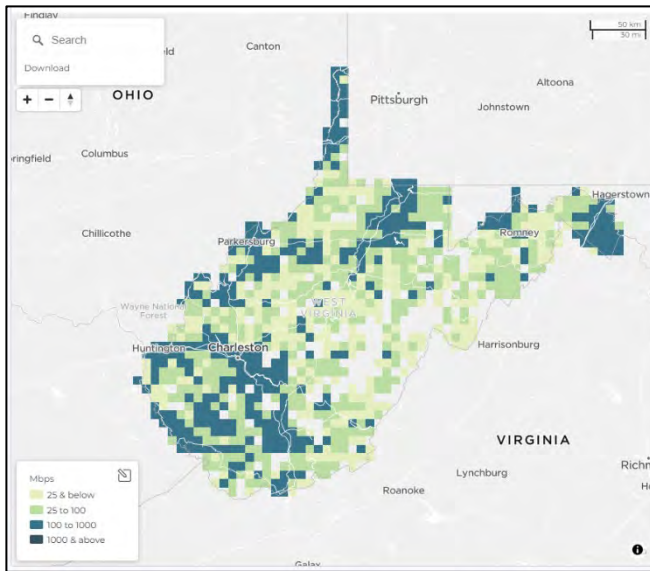
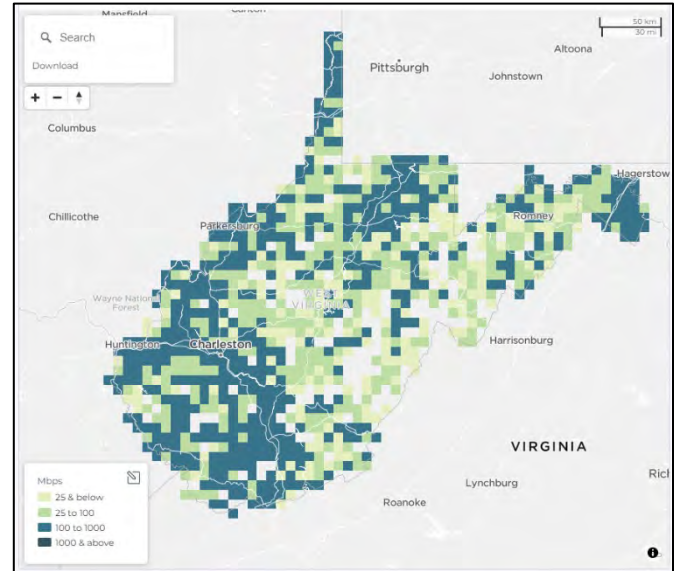


Figure 12: Performance results for 2023.



6. FCC Rural Digital Opportunity Fund

Launched by the FCC, RDOF offers internet service providers funding to extend service to designated underserved areas. The program centers on a reverse auction in which internet service providers compete for grants to connect underserved Census blocks; each block is awarded to the internet service provider that can connect it with the least amount of requested federal funding.

The FCC conducted Phase 1 of the RDOF multi-round, reverse auction in October and November 2020. Through the entire RDOF program, the FCC outlined plans to award up to \$20.4 billion to support fixed broadband development nationwide. Phase 1 of the RDOF auction program included \$16 billion in potential funding. Of the \$16 billion, \$9.2 billion, or 57.5%, was awarded through a competitive, reverse auction framework designed to reduce costs through repetitive rounds of bidding by location(s). Winning bidders were announced on December 7, 2020.

West Virginia's initial auction eligibility profile, as determined by the FCC, included 120,506 locations. The maximum statewide award possible was slightly more than \$766 million, or \$76 million per year, for 10 years. This figure was the maximum potential subsidy to be awarded by the FCC to carriers that competed in the auction process. However, through the reverse auction process, the ultimate subsidy amount awarded in West Virginia was \$362 million, approximately 47.2% of the maximum amount.

Additionally, of the 120,506 initially eligible locations, 119,267 (98.9%), were ‘won’ by auction participants.³

Of these, six service providers serving 109,087 RDOF locations in West Virginia have been approved to provide broadband service under RDOF. All six will offer service that meets the fully served BEAD classification.⁴ Of these, approximately 80,000 of those are assigned to Frontier.⁵

All six service providers bid and won in the auction’s Gigabit Performance Tier, specifying the use of “Optical Carrier – Fiber to the End-User” as the technology to be utilized to satisfy deployment obligations. All auction winners must fulfill deployment obligations to serve 40% of the total locations won in a state by the end of year three (starting when the FCC announces final approval of auction winners to receive Universal Service Funds) and an additional 20% of auction subsidized locations per year until 100% completion by the end of year six.

The specification of “Optical Carrier – Fiber to the End User” as a technology necessitates the deployment of a Gigabit Passive Optical Network (GPON) as a fiber-to-the-home (FTTH) network that is able to provide service to each of the subsidized locations in West Virginia.

All auction winners must fulfill deployment obligations to serve 40% of total locations won across West Virginia by the end of the third year from RDOF Final Approval. An additional 20% must be served each following year until 100% completion is achieved by the end of year six.⁶ See **Error! Reference source not found.** for each.

These deployment milestones apply to all auction participants and represents a significant investment in broadband infrastructure in West Virginia.

Table 10: RDOF Milestones

Internet Service Provider	Date of RDOF Final Approval	40% Milestone Date
Citynet	11/12/2021	12/31/2024
Micrologic	02/14/2022	12/31/2025
PRODIGI	03/15/2022	12/31/2025
Frontier	05/12/2022	12/31/2025
GigaBeam Networks	12/15/2022	12/31/2025
Suddenlink	08/05/2022	12/31/2025

³ WVOB, West Virginia Broadband Enhancement Council, 2022 Annual Report, https://www.wvlegislature.gov/legisdocs/reports/agency/B19_CY_2022_15837.pdf, p. 52

⁴ “Auction 904: Rural Digital Opportunity Fund,” Federal Communications Commission, accessed May 19, 2023, <https://www.fcc.gov/auction/904>.

⁵ WVOB, West Virginia Broadband Enhancement Council, 2022 Annual Report, https://www.wvlegislature.gov/legisdocs/reports/agency/B19_CY_2022_15837.pdf, p. 52

⁶ “Rural Digital Opportunity Fund,” Universal Service Administrative Company, accessed May 19, 2023, <https://www.usac.org/high-cost/funds/rural-digital-opportunity-fund/>.

7. Infrastructure Investment and Jobs Act Programs

The Infrastructure Investment and Jobs Act (IIJA) of 2021 provides a historic \$65 billion investment to expand internet access and adoption throughout the United States. Four federal agencies are leading the nation's Internet for All initiative with programs to support high-speed internet planning, data development, infrastructure, and adoption. These agencies include: the National Telecommunications and Information Administration (NTIA), the Federal Communications Commission (FCC), the Department of the Treasury, and the U.S. Department of Agriculture (USDA). The federal agencies have consolidated funding programs under the national [Internet for All](#) initiative.

NTIA administers two major programs under this initiative – the \$42.5 billion Broadband Equity, Access, and Deployment (BEAD) program, and the \$2.75 billion Digital Equity Act (DE) programs. The Digital Equity Act includes \$60 million for a State Planning Grant Program, \$1.44 billion for a State Capacity Grant Program, and \$1.25 billion for a Competitive Grant Program.

On May 13, 2022, NTIA released a Notice of Funding Opportunity (NOFO) for three national broadband programs under the Infrastructure Investment and Jobs Act (IIJA):

1. Broadband Equity, Access, and Deployment (BEAD) Program (\$42.5 billion)
2. Enabling Middle Mile Broadband Infrastructure Program (\$1 billion)
3. State Digital Equity Planning Grant (\$60 million)

NTIA has awarded initial planning funds to the West Virginia Department of Economic Development, Office of Broadband as described by the table below.

Program	Amount	Date of Award	Plan Due Date
BEAD Planning Grant	\$5,000,000	November 14, 2022	August 12, 2023
Digital Equity Planning Grant	\$732,640	September 30, 2022	December 28, 2023

On June 26th, 2023, NTIA announced that West Virginia will receive over \$1.2 billion in implementation funding through the BEAD Program. Overall, these programs represent a historic opportunity to achieve universal connectivity in the Mountain State, where many residents have had to deal with the digital divide for too long.

WVDED's activities pertaining to each program are briefly detailed below:

1. Broadband, Equity, Access, and Deployment (BEAD)

- a. The BEAD program provides funding for broadband planning, deployment, mapping, equity, and adoption activities. Each State is eligible to receive a minimum of \$100 million, of which \$5 million can be allocated as Planning Funds. As announced this year, West Virginia will receive \$1,210,800,969.85 in total. States that do not complete the BEAD Planning process will not be eligible for BEAD Implementation funds.
- b. West Virginia was among the 34 initial states that submitted a Letter of Intent (LOI) to participate in [the BEAD Program](#).
- c. West Virginia's BEAD application was submitted to NTIA on August 11, 2022, in advance of the August 15, 2022, application deadline. West Virginia's BEAD application was approved on November 14, 2022.
- d. The State's Five-Year Action Plan was submitted to NTIA on August 11, 2023, in advance of the August 12th due date. The Five-Year Action Plan was approved shortly after.
- e. WVDED has completed and submitted its Initial Proposal, Volumes I and II, to NTIA. Volume I was submitted on October 30, 2023, and Volume II was submitted on December 12, 2023. Each Volume was released for a 30-day public comment period.
- f. In early 2024, the BEAD Challenge process will be executed. In late 2024, the BEAD Final Proposal will be submitted, moving the BEAD plan into implementation in early 2025, pending relevant approvals from NTIA.

2. State Digital Equity Planning Grant Program

- a. The State Digital Equity Planning Grant (<https://broadbandusa.ntia.doc.gov/resources/grant-programs/digital-equity-programs>) is awarded to States and territories to develop State Digital Equity Plans designed to identify barriers to digital equity and implement strategies to overcome these barriers.
- b. Digital Equity Plans must be coordinated in alignment with the BEAD Five-Year Action Plan.
- c. West Virginia's application was submitted on July 1, 2022, in advance of the July 12, 2022 Digital Equity Planning Grant application deadline. West Virginia's Digital Equity Planning Grant was approved by NTIA on September 30, 2022.
- d. In accordance with NTIA requirements, WVDED released the first draft of its Digital Equity Plan for public comment on July 17, 2023. WVDED accepted public comments until August 21, 2023. Public feedback was incorporated into the final draft, including a section that responded to each category of comment.
- e. The State's Digital Equity Plan underwent an early submission on August 31, 2023. NTIA provided feedback which was implemented for a resubmission on November 6, 2023.
- f. The final draft of the State Digital Equity Plan, incorporating revisions from all NTIA curing comments, was submitted to NTIA on December 14, 2023.
- g. In 2024, WVDED will apply for the Digital Equity Capacity Grant program to put the West Virginia Digital Equity Plan into action. WVDED will also work with relevant and

interested stakeholders who wish to apply for the Digital Equity Competitive Grant Program.

3. NTIA Middle Mile Broadband Infrastructure Grant

- a. The Middle Mile Broadband Infrastructure Grant Program (<https://broadbandusa.ntia.doc.gov/enabling-middle-mile-broadband-infrastructure-program>) provides funding for the construction, improvement, or acquisition of middle-mile infrastructure. Grant funds will be used to expand middle mile infrastructure to reduce the cost of unserved last-mile networks to connect to the internet backbone.
- b. NTIA will prioritize projects that meet at least two of the following five criteria, as outlined in Section 60401(d)(2) of the Infrastructure Act. Preferred projects will:
 - Adopt "fiscally sustainable middle mile strategies"
 - Commit to offering non-discriminatory interconnect
 - Identify specific, documented and sustainable demand for middle mile interconnections
 - Identify conditions/resources to speed up project
 - Demonstrate benefits to national security interests
- c. The Middle Mile Program's Notice of Funding Opportunity states that applicants must coordinate with the State Office of Broadband prior to submitting an application *"to ensure that the proposal is consistent with the State's broadband plan and priorities."*⁷
- d. Middle Mile Program grant applications were submitted directly to NTIA in September 2022.
- e. The Office of Broadband issued Request for Information (RFI) to gauge interest in potential middle mile grant applications from West Virginia on June 24, 2022. The RFI closed on July 20, 2022. The RFI was later extended, to close on August 31, 2022.
- f. Eligible applicants are defined as: "(A) a State, political subdivision of a State, Tribal government, technology company, electric utility, utility cooperative, public utility district, telecommunications company, telecommunications cooperative, nonprofit foundation, nonprofit corporation, nonprofit institution, nonprofit association, regional planning council, Native entity, or economic development authority; or (B) a partnership of two (2) or more entities described in (A)."⁸
- g. Following the success of their Logan Mingo Broadband project⁹, Appalachian Power Company and Wheeling Power Company (AEP) developed a feasibility study in 2022 which included five counties in southeastern West Virginia, including Raleigh, Mercer, Wyoming, McDowell, and Summers counties. The West Virginia Broadband Enhancement Council approved this study in March 2023.
- h. AEP applied to the NTIA Middle Mile Expansion Program and received a \$25 million grant for this project in June 2023. Upon completion, the project will result in 658 miles

⁷ <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/MIDDLE%20MILE%20NOFO.pdf>, page 22-23

⁸ page 5

⁹ "BROADBAND PROJECT KICKS OFF IN LOGAN, MINGO COUNTIES" <https://www.capito.senate.gov/news/in-the-news/broadband-project-kicks-off-in-logan-mingo-counties>

of new middle mile fiber and will utilize nearly 300 miles of the company’s existing fiber infrastructure to reach more than 20,000 unserved and underserved locations.

7.1 Internet For All West Virginia

The [Internet for All West Virginia website](#), which was launched in February 2023, was developed to disseminate information about West Virginia’s participation in the Digital Equity Act and BEAD Programs and provide a centralized location to engage with stakeholders and communities. The website includes information about how to enroll in the Affordable Connectivity Program, upcoming events, guidance on completing a Consumer Complaint with the West Virginia Office of the Attorney General and listed the Core Planning Team and Digital Equity Steering Committee membership. The website also included a link to the West Virginia Digital Access and Equity (DAE) Survey while still active.

The DAE survey was designed to collect information from statewide organizations, agencies, offices, and businesses that improve digital equity in West Virginia. This information helped inform the State’s digital equity asset inventory. The Core Planning Team, in collaboration with the Commerce Communications Team, will continue to update the Internet for All West Virginia website throughout Digital Equity and BEAD Plan implementation.

7.2 West Virginia’s Core Planning Team

The WVDED formed the Core Planning Team and Digital Equity Steering Committee at the outset of its digital equity efforts. The Core Planning Team was created to assist WVDED in all aspects of developing and drafting the BEAD and Digital Equity Plans. This included research and analysis, outreach, recommendation, material creation, and drafting as needed. The Steering Committee worked closely with the Core Planning Team to provide guidance, advice, and recommendations. The Committee provided valuable information about digital equity efforts across the state and other organizations that could aid digital equity efforts.

Members of the Core Planning Team include representatives from Tilson Technology Management; the Marshall University Center for Business and Economic Research (CBER); WVU’s Startup West Virginia, Data Driven West Virginia, Land Use and Sustainability Law Clinic, and Survey Research Center; the West Virginia Broadband Enhancement Council; and WVDED.

7.3 Partnerships for IJA Grant Planning

Throughout the development of the Five-Year Action Plan and Digital Equity Plan, WVDED engaged with and solicited feedback from a wide range of partners. These partners include organizations already engaged in issues related to broadband deployment and digital inclusion, such as local governments, institutions of higher education, school systems, faith-based organizations, foundations, and more. Table 11 offers a non-exhaustive list of these partners and their roles in broadband deployment or adoption.

Table 11: List of Partners and Their Current or Planned Role in Broadband Deployment and Adoption

Partner	Current or planned role in broadband deployment and adoption
AARP West Virginia	Steering Committee member

Appalachian Prison Book Project	Offer insights on incarcerated individuals
Appalachian Regional Commission	Act as a key partner, and potential source of funding, for a variety of broadband deployment projects; member of the Workforce Development Council
Black by God	Provide feedback and information relevant to the deployment of broadband and digital equity activities for persons of color
Blue Ridge Community and Technical College	Member of the Workforce Development Council
Chancellor of the Community and Technical College System	Member of the Workforce Development Council
Citynet	Exchange information on challenge and considerations for broadband deployment in West Virginia; member of the Workforce Development Council
Comcast	Exchange information on challenges and considerations for broadband deployment in West Virginia
Communications Workers of America	Member of the Workforce Development Council
Community and Technical College System of West Virginia	Member of the Workforce Development Council
CyberGenerations	Provide information on existing digital equity programs related to aging individuals
Eastern West Virginia Community & Technical College	Member of the Workforce Development Council
Frontier	Exchange information on challenge and considerations for broadband deployment in West Virginia
Gassaway Public Library	Offer insights related to broadband deployment at CAIs
Generation West Virginia	Steering Committee member
GigaBeam Networks	Exchange information on challenges and considerations for broadband deployment in West Virginia
Innovative Community Solutions (ICS)	Covered populations outreach and potential partner on digital literacy training and workforce development
Marshall University, Center for Business and Economic Research	Member of the core planning team
Mary H. Weir Public Library	Offer insights related to broadband deployment at CAIs
Micrologic, Inc.	Exchange information on challenges and considerations for broadband deployment in West Virginia; member of the Workforce Development Council
Morgantown Public Library System	Offer insights related to broadband deployment at CAIs
Mountain State Educational Services Cooperative	Community outreach and potential partner on digital literacy training and workforce development
Multiple Senior Centers	Provide information on existing digital equity programs related to aging individuals

National Digital Inclusion Alliance	Provide feedback and information relevant to the deployment of broadband and digital equity activities
National Electric Contractors Association (West Virginia/Ohio Valley Chapter)	Member of the Workforce Development Council
New River Community and Technical College	Member of the Workforce Development Council
Other Public Libraries	Offer insights related to broadband deployment at CAIs
Pierpont Community & Technical College Center for Workforce Education	Member of the Workforce Development Council
Prodigi	Exchange information on challenge and considerations for broadband deployment in West Virginia
Putnam County Library System	Offer insights related to broadband deployment at CAIs
Randolph County Development Authority	Member of the Workforce Development Council
Region 10 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 11 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 2 Planning & Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 3 Planning & Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 4 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 5 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 6 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 7 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 8 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 9 Planning and Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Region 1 Planning & Development Council	Conduct listening sessions with constituents and provide details and feedback to WVDED
Regional Optical Communications, Inc.	19 county consortium focused on the planning and collaboration to improve broadband within the region
Southern West Virginia Community and Technical College	Member of the Workforce Development Council
StartUp West Virginia	Member of the core planning team
State of West Virginia Governor's Office	Member of the Workforce Development Council

Suddenlink/Optimum	Exchange information on challenge and considerations for broadband deployment in West Virginia
The Thrasher Group	Member of the core planning team
Three Sixty Strategies, LLC	Member of the Workforce Development Council
Tilson Technology	Member of the core planning team
U.S. Department of Labor	Member of the Workforce Development Council
West Virginia Broadband Enhancement Council	Steering Committee member; Core planning team member; the West Virginia Office of Broadband exists as an extension of the WVBEAC and its mandate, yet the Office of Broadband is a separate entity
West Virginia Department of Commerce	Member of the Workforce Development Council
West Virginia Department of Education	Provide feedback and information relevant to the deployment of broadband and digital equity activities; Member of the Broadband Enhancement Council
West Virginia Library Commission	Steering Committee member
West Virginia University at Parkersburg	Member of the Workforce Development Council
West Virginia University, Data Driven WV	Member of the core planning team
West Virginia Department of Education - Career Technical Education	Member of the Workforce Development Council
West Virginia Department of Veterans Assistance	Member of the Workforce Development Council
West Virginia - Herbert Henderson Office of Minority Affairs	Member of the Workforce Development Council
West Virginia Higher Education Policy Commission	Member of the Workforce Development Council
West Virginia NAACP Chapters	Provide feedback and information relevant to the deployment of broadband and digital equity activities for persons of color
West Virginia Northern Community College	Member of the Workforce Development Council
West Virginia Office of Technology	Member of the Broadband Enhancement Council
West Virginia University	Member of the Workforce Development Council
Workforce Development Board of Kanawha County	Member of the Workforce Development Council
Workforce WV	Member of the Workforce Development Council
WVCTA - The Internet and Television Association	Member of the Workforce Development Council

7.4 West Virginia’s Digital Equity Steering Committee

West Virginia employed its Digital Equity Steering Committee for feedback and assistance, leveraging their expertise in public outreach, organizing, and program design throughout the Digital Equity planning process.

The Committee includes representatives of organizations that serve covered populations including AARP West Virginia, Generation West Virginia, the West Virginia Library Commission, and the West Virginia Broadband Enhancement Council. The Committee meets monthly and has provided input on relevant materials, including the RPDC Community Engagement Plans, the Digital Equity Subgrantee Pilot Program, the Digital Equity Plan, and the BEAD Non-Deployment Program Procedures.

Digital Equity Steering Committee Members

Angela Vance	Associate State Director, Advocacy, AARP WV
Roger Calhoun	Member, Rural Residential User, West Virginia Broadband Enhancement Council
Alex Weld	Executive Director, Generation WV
Annie Stroud	Broadband Coordinator, Generation WV
Donna Calvert	Director, Special Services, WV Library Commission

7.5 Digital Equity Planning

West Virginia’s digital equity planning team is dedicated to planning, expanding, and funding accessible high-speed internet in West Virginia.

“Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for access to essential services, civic and cultural participation, employment, and lifelong learning.” --Digital equity definition, National Digital Inclusion Alliance (NDIA)

WVDED, together with its partners, has drafted a plan to achieve digital equity in West Virginia. This plan will ensure that everyone in the State has access to affordable high-speed internet, affordable devices to use the

internet, and the opportunity to learn the skills necessary to take full advantage of everything the internet offers. All Digital Equity Plans must include:

- a. A statewide vision for digital equity
- b. A digital equity framework and scorecard
- c. Plans for digital literacy innovation programs
- d. Proposed technology-related apprenticeship or other workforce opportunities
- e. Integration with the State's Economic Development Strategy, educational and health outcomes, and civic and social engagement

Action steps to implement the Digital Equity Plan that contains all requirements set forth in the [Notice of Funding Opportunity](#). West Virginia submitted its Digital Equity Plan to NTIA on August 30, 2023 for early review. Prior to this, WVDED provided 30 days for public comment. WVDED incorporated public feedback, as well as review comments from NTIA, and resubmitted the Digital Equity Plan on November 6, 2023. A final version with revisions from NTIA curing comments was submitted on December 14, 2023.

Digital Equity Program deliverables include:

- a. a printed Digital Equity Plan, with an electronic version hosted on the [Internet for All WV website](#);
- b. an open access, interactive online dashboard and downloadable map displaying the data collected to inform the measurable objectives, and
- c. a Digital Equity asset inventory and community resource library.

WVDED has completed the first deliverable, while the second and third deliverables will be completed in the near future.

7.6 Digital Equity Timeline

- a. Submission of Digital Equity application (July 1, 2022).
- b. WVDED is awarded Digital Equity Planning Grant funds, period of performance begins (October 1, 2022).
- c. Internet for All West Virginia Kickoff Conference (February 1, 2023).
- d. Internet for All West Virginia Listening Sessions are held (March—July 2023).
- e. Inaugural West Virginia Broadband Summit (July 25-26, 2023).
- f. Early submission of Digital Equity Plan to NTIA (August 30, 2023).
- g. Public follow-up meetings are held (October—November 2023).
- h. Resubmission of Digital Equity Plan to NTIA for preliminary review (November 6, 2023).
- i. Submission of Digital Equity Plan Final Draft to NTIA (December 14, 2023).
- j. Digital Equity Planning Grant period of performance ends (December 28, 2023).
- k. Notice of Funding Opportunity (NOFO) and application for Digital Equity Capacity Grants open. (Early 2024).
- l. Digital Equity Capacity Grants are awarded. Digital Equity Competitive Grant Program is launched within one month of State Capacity Grant Awards (Summer--Fall 2024).
- m. Five-Year State Capacity Implementation. Competitive Grant Application process and Four-Year Implementation (2024 - 2026+); a more detailed timeline is available in the Digital Equity Plan.

7.7 BEAD Planning

The Broadband Equity, Access, and Deployment (BEAD) Program provides \$42.45 billion to expand high-speed internet access by funding planning, infrastructure deployment, mapping, equity, and adoption activities in all 50 states, Washington D.C., and U.S. Territories. BEAD prioritizes unserved locations that have no Internet access or that have service under 25/3 Mbps. Key requirements are outlined in the [BEAD Notice of Funding Opportunity](#).

West Virginia received \$5 million in initial planning funds, which supported the development of the State Five-Year Action Plan and Initial Proposal. The Five-Year Action Plan establishes the State's high-speed internet goals and priorities and serves as a comprehensive needs assessment that will inform infrastructure expansion strategies. The Initial Proposal describes the specific requirements and procedures for both deployment and non-deployment activities.

On June 30th, 2023, NTIA and the federal government announced the full state allocations under the BEAD Program; West Virginia was allocated more than \$1.2 Billion dollars to execute its BEAD Plan.

The Five-Year Action Plan, its goals, and its objectives were developed through the following processes:

1. Collecting data and mapping the current state of broadband
2. Identifying needs and gaps
3. Inventorying hard and soft assets
4. Assessing legislative and regulatory barriers
5. Understanding West Virginia's workforce development landscape and needs
6. Engaging partners, stakeholders, and members of the public

In compliance with federal requirements, WVDED coordinated processes and efforts across both BEAD and Digital Equity planning. WVDED staff and partners worked together across both grant programs to ensure alignment and efficient use of staff time and planning funds. On August 11th, 2023, the [State Five-Year Action Plan](#) was submitted to NTIA and approved shortly after.

Meeting West Virginia's ambitious connectivity goals also requires coordination across the public and private sectors to ensure that publicly funded projects are data-informed, contribute to the common good, and are an effective use of taxpayer funds. To achieve its goals and objectives, WVDED commits to:

- a. ongoing collaboration and communication with all stakeholders
- b. ensuring BEAD investments strengthen and promote existing broadband programs
- c. collecting Geographic Information System (GIS) data that broadband internet service providers can use to plan and estimate the cost of their networks

True partnership means committed, continuous engagement for the development of a more connected and equal West Virginia.

7.8 BEAD Initial Proposal

The Initial Proposal builds upon the BEAD Five-Year Action Plan by further describing how the goals described in the latter document will be achieved. As recommended by NTIA, WVDED split its Initial Proposal document into two volumes.

There are 20 topics each Initial Proposal is required to cover.

Figure 14: Initial Proposal requirements.

Initial Proposal Requirements		Volume I	Volume II
Req. 1	Objectives		Req. 11 Labor Standards and Protection
Req. 2	Local, Tribal, and Regional Broadband Planning		Req. 12 Workforce Readiness
Req. 3	Existing Broadband Funding		Req. 13 MBE's/WBE's/LSA's
Req. 4	Local Coordination		Req. 14 Cost and Barrier Reduction
Req. 5	Unserved and Underserved Locations		Req. 15 Climate Assessment
Req. 6	Community Anchor Institutions		Req. 16 Low-Cost Broadband Service Option
Req. 7	Challenge Process		Req. 17 Use of 20% of Funding
Req. 8	Deployment Subgrantee Selection		Req. 18 Eligible Entity Regulatory Approach
Req. 9	Non-Deployment Subgrantee Selection		Req. 19 Cert. of Compliance with BEAD Req.
Req. 10	Eligible Entity Implementation Activities		Req. 20 Middle Class Affordability Plans

Initial Proposal Volume 1 (IPV1) covers four requirements:

1. Existing broadband funding available to WVDED;
2. Unserved and underserved locations eligible for BEAD funding;
3. Definitions and locations of Community Anchor Institutions (CAIs) in West Virginia; and
4. Plans for an evidence-based, transparent, fair, and expeditious BEAD challenge process, as well as the process to de-duplicate funding in West Virginia.

Initial Proposal Volume 2 (IPV2) covers the remaining 16 requirements:

1. Objectives;
2. Local, tribal, and regional broadband planning;
3. Local coordination;
4. Deployment subgrantee selection;
5. Non-deployment subgrantee selection;
6. Eligible entity implementation activities;
7. Labor standards and protection;
8. Workforce readiness;

9. Minority business enterprises (MBE), Women business enterprises (WBE), and Labor surplus area (LSA) inclusion;
10. Cost and barrier reduction;
11. Climate assessment;
12. Low-cost broadband service option;
13. Use of 20% of funding;
14. Eligible entity regulatory approach;
15. Certification of compliance with BEAD requirements; and
16. Middle class affordability plans.

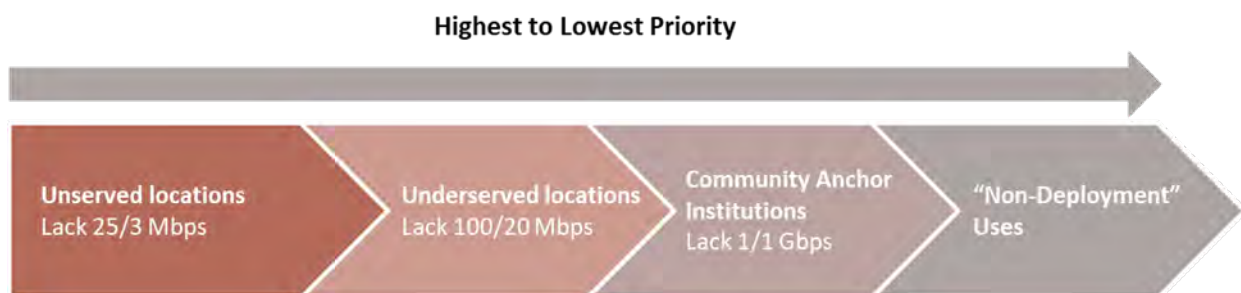
Another requirement is that each document must be released for a 30-day public comment period. IPV1 was released for public review on August 30, 2023, and received 15 comments. Feedback from the public, NTIA, and industry groups was incorporated into the final draft, which was submitted on October 30, 2023. IPV2 was released for public comment on October 20, 2023 and received 41 comments. Feedback from the previously mentioned groups was incorporated into the final draft, submitted on December 26, 2023. At the time of this report, WVDED is awaiting NTIA approval of IPV1 and IPV2.

A series of 12 public meetings occurred around the State to promote IPV2's public comment and provide an overall BEAD and DE progress update. These meetings were facilitated by the 11 RPDCs—with one meeting held by WVDED—and took place between October 30, 2023, and November 16, 2023. Meetings were held in Hamlin, Parkersburg, Summersville, Buckhannon, Wheeling, Martinsburg, Princeton, Lewisburg, Clay, Morgantown, Weirton, and Petersburg.

Draft program procedures for both deployment and non-deployment under BEAD were also released for public comment during the second half of November 2023. This action was not required by NTIA, but was a measure taken by WVDED to ensure that all BEAD Programs were being thoroughly vetted by all relevant partners and stakeholders.

As directed by NTIA, BEAD funding places the highest priority on expanding broadband to unserved locations, followed by underserved locations, community anchor institutions, and non-deployment uses.

Figure 15: BEAD priorities.



7.9 BEAD Timeline

The Office of Broadband continues to reach significant in BEAD timeline. Now that Initial Proposal Vol. I and II have been submitted, the Challenge Process is anticipated to begin in early January 2024. A conceptual timeline, subject to change, for BEAD application and implementation is provided below:

Figure 16: BEAD timeline



BEAD Timeline Overview

- BEAD Letter of Intent (LOI) submitted to NTIA (Summer 2022).
- Submission of BEAD Application (August 1, 2022).
- BEAD planning funds awarded to WVDED (November 14, 2022).
- Internet for All West Virginia Listening Sessions are held (March—July 2023).
- Announcement of State funding allocation amounts under BEAD Program (June 26, 2023).
- Inaugural West Virginia Broadband Summit (July 25-26, 2023).
- Submission of BEAD Five-Year Action Plan (August 11, 2023).
- Submission of BEAD Initial Proposal Vol. 1 (October 30, 2023).
- Public follow-up meetings are held (October—November 2023).
- Submission of BEAD Initial Proposal Vol. 2 (December 12, 2023).
- BEAD Challenge Process (January—March 2024).
- Competitive project selection process (Summer 2024).
- Final Proposals must be submitted to NTIA no later than 365 days after the approval of the Initial Proposal (Fall/Winter 2024).
- Final Funding: Four-Year Implementation. (2024 - 2028+).

7.10 Relevant Links

- West Virginia Office of Broadband Website: <https://broadband.wv.gov/>
- Internet for All West Virginia Website: <https://internetforallwv.wv.gov/>
- Internet for All National Website: <https://www.internet4all.gov/>
- FCC National Broadband Map: <https://broadbandmap.fcc.gov/home>
- FCC Affordable Connectivity Program Information: <https://www.fcc.gov/acp>
- National Digital Inclusion Alliance (NDIA): <https://www.digitalinclusion.org/>

8. Demographic Adoption Data

The Digital Equity Act is fundamentally concerned with promoting full participation in the digital economy and society by all, especially populations that do not yet have access to modern advancements. Achievement of digital equity requires strategic investments in human and community capacity.¹⁰ The Digital Equity Act therefore requires the State of West Virginia, through the West Virginia Office of Broadband, to provide a comprehensive baseline assessment of its covered populations, including identifying areas of higher need across the State.

WVDED undertook considerable research measures to develop the baseline assessment. Externally generated data came from the U.S. Census Bureau, American Community Survey (ACS), and other miscellaneous research. WVDED did, however, generate much of its own data via surveys and listening sessions throughout the State.

8.1 Census and American Community Survey Data

The ACS is an ongoing survey conducted by the U.S. Census Bureau that is designed to provide up-to-date information on a yearly basis about the United States and its people.¹¹ ACS provides reliable and timely social, economic, housing, and demographic data every year. Data from the ACS Digital Equity Act Population Viewer provides insight into the unique challenges at West Virginia's baseline. Approximately 96.9% of West Virginians belong to a covered population, as approximately 90% of the overall population live in rural areas.¹² The West Virginian covered populations exhibit much overlap, especially because of the large population in rural areas. The high volume of covered populations is why WVDED has elected to take a comprehensive, statewide digital equity strategy, while keeping close collaboration with organizations that serve covered populations to ensure they are adequately aided.

In some instances, data on certain covered populations is not available from the Census Bureau and ACS. In these cases, tables were chosen to match NTIA's *State Total Covered Populations* source data whenever

¹⁰ <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/DE%20PLANNING%20GRANT%20NOFO.pdf>

¹¹ <https://www.census.gov/programs-surveys/acs/about.html>

¹² U.S. Census Bureau, Digital Equity Act Covered Population Viewer, <https://mtgis-portal.geo.census.gov/arcgis/apps/webappviewer/index.html?id=c5e6cf675865464a90ff1573c5072b42>.

possible. To determine areas with higher rates of those with English language barriers as a result of low English literacy, the most recent Department of Education literacy data was chosen.¹³

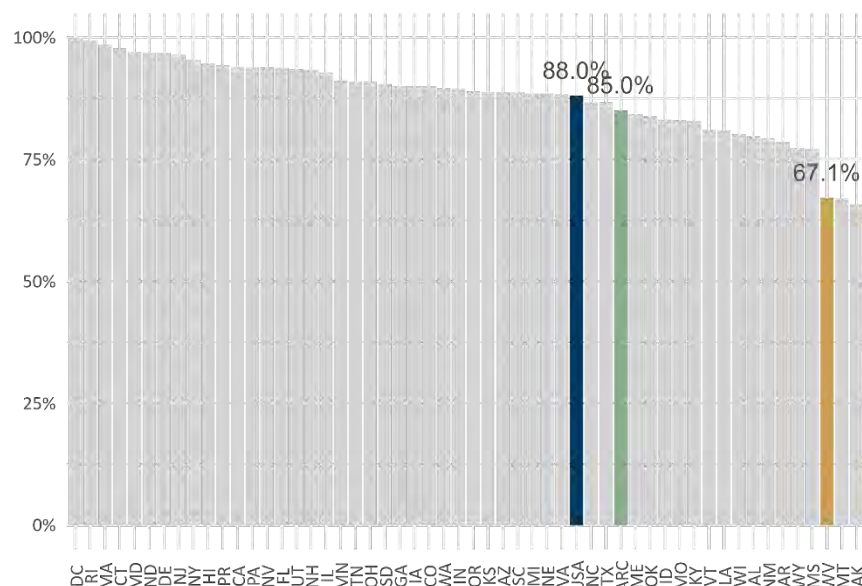
Overall, ACS data indicates that 96.9% of West Virginians fall into at least one covered population under the Digital Equity Act. Please note that these percentages do not add up to 100% — many West Virginians fall into more than one of these covered population categories.

Table 12: Digital Equity Act Covered Populations.

Covered Population	% of WV Population
Covered Households	26.5%
Aging Individuals	28.0%
Veterans	6.8%
Incarcerated Individuals	0.5%
Individuals with Disabilities	20.3%
Language Barrier: English Learner	0.7%
Language Barrier: Literacy	20.9%
Racial or Ethnic Minority	8.0%
Rural	90.0%
Total	96.9%

Source: U.S. Census Digital Equity Act [Population Viewer](#)

Figure 17: Percent of Residences with Access to at Least 100/20 Mbps Residential Broadband Availability by State



Source: Calculated using December 31, 2022, National Broadband Data Collection Availability Data provided by the Federal Communications Commission

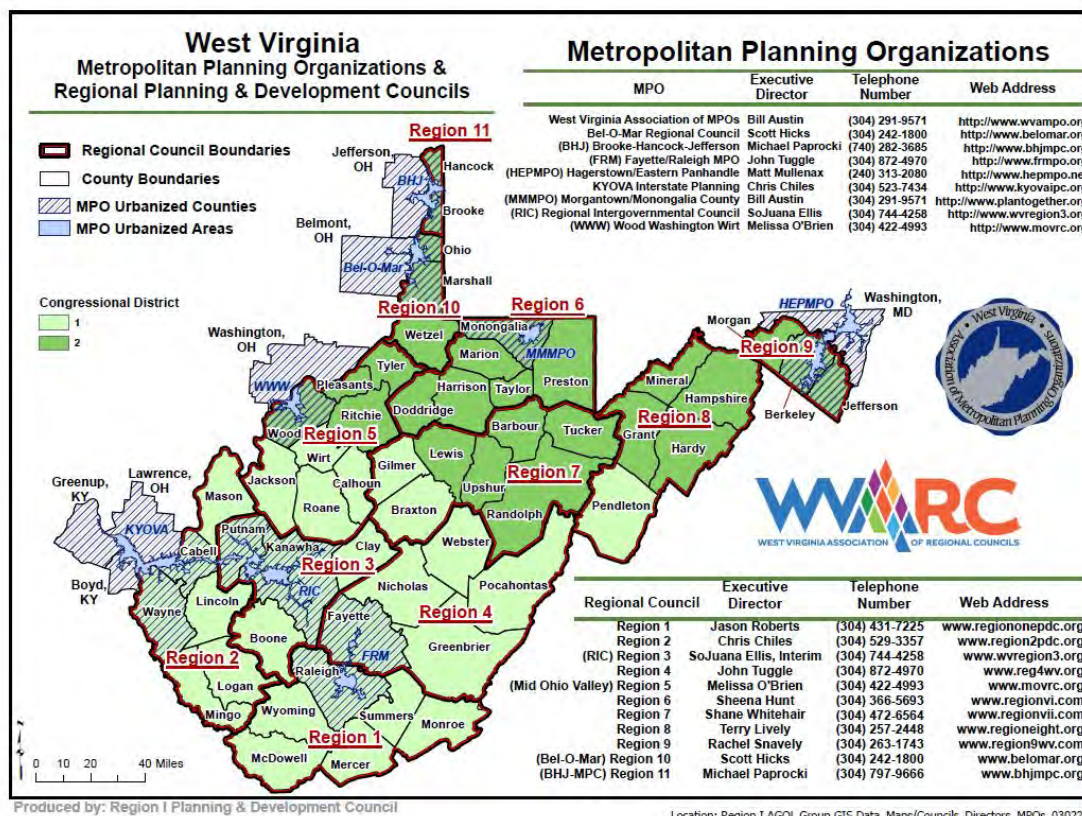
¹³ <https://nces.ed.gov/surveys/piaac/skillsmap/>

8.2 RPDC Listening Sessions

The RPDC listening sessions sought to engage residents and communities with the greatest digital equity, access, and adoption needs. During the sessions, attendees were asked to share information about their experiences with internet and device use, internet service at home, access barriers, and digital skills and cybersecurity. Attendees were also encouraged to provide feedback on the West Virginia Digital Equity Plan draft vision statement. All answers were recorded anonymously through a Google Form.

When planning data collection, WVDED wanted trusted community partners to engage with citizens. As such, it chose the 11 West Virginia RPDCs as its partners. In 1971, the Regional Planning and Development Act divided the State into 11 regions serving as development districts “to more effectively utilize funding resources and maximize small communities’ chances of attracting funds from federal, state, and local organizations to foster community and cooperation throughout the state.” As stated by the West Virginia Association of Regional Councils, the RPDCs focus on expanding and improving water and sewer facilities, infrastructure, transportation, employment, industry, housing, health care, education, and recreation. Figure 18 depicts the regional boundaries.

Figure 18: West Virginia Metropolitan Planning Organizations and Regional Planning and Development Councils



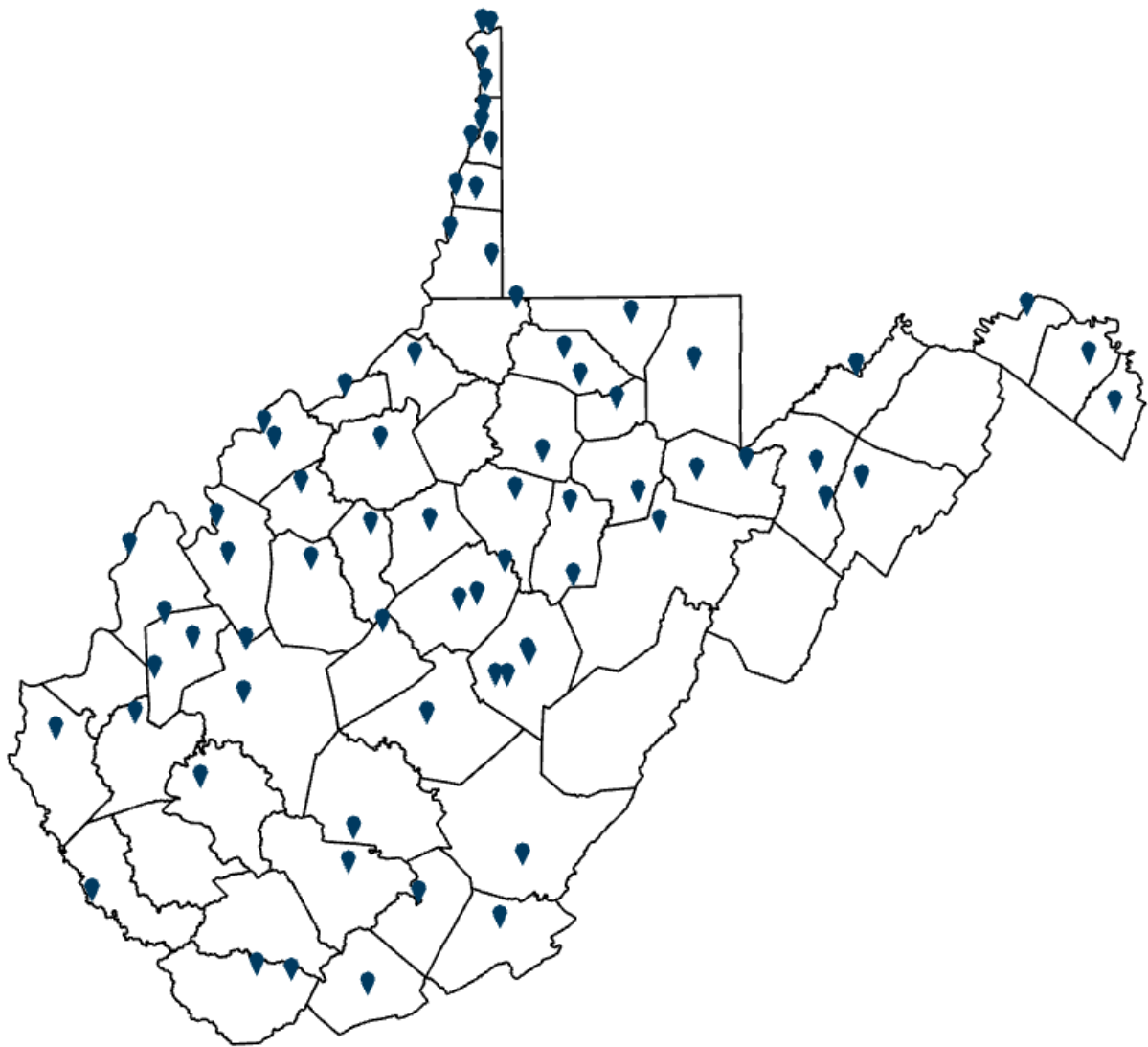
Source: Region I Planning & Development Council,

<https://cdn.sanity.io/files/2avbnain/production/fc5bb0201dd9e787427927a3920d544fbb16c77d.pdf>

The RPDCs began holding their listening sessions in May 2023 and completed them by the first week of June 2023. The format for a listening session requires a representative sample from each of the eight target populations. To achieve this, RPDCs were given the option to either pursue a representative sample or gather a minimum number of attendees. This format nearly guaranteed that at least five individuals from each target population would be in attendance.

Under the RPDC leadership, a total of 130 small-to-mid sized listening sessions were held over a three-month period in 2023 with broad representation from members of covered populations and organizations that serve them. A total of 1,876 West Virginians attended the statewide listening sessions. Attendance ranged from 1 to 178 community members, with an average of 11.9 attendees per listening session. Figure 19 maps the locations of each of these listening sessions, save for a handful that could not be isolated. Please note there was a session in every RPDC region, not every county.

Figure 19: Map of Where RPDCs Held Listening Sessions



Source: Data Driven WV

Data collected at listening sessions revealed consistent themes pertaining to West Virginian digital equity needs. In turn, these findings informed the high-level strategic development and baseline of the State Digital Equity Plan.

8.3 Digital Access and Equity Survey

The WVDED, in collaboration with the Core Planning Team, conducted an inventory of existing digital equity programs and services. Methods for collecting and validating this information include:

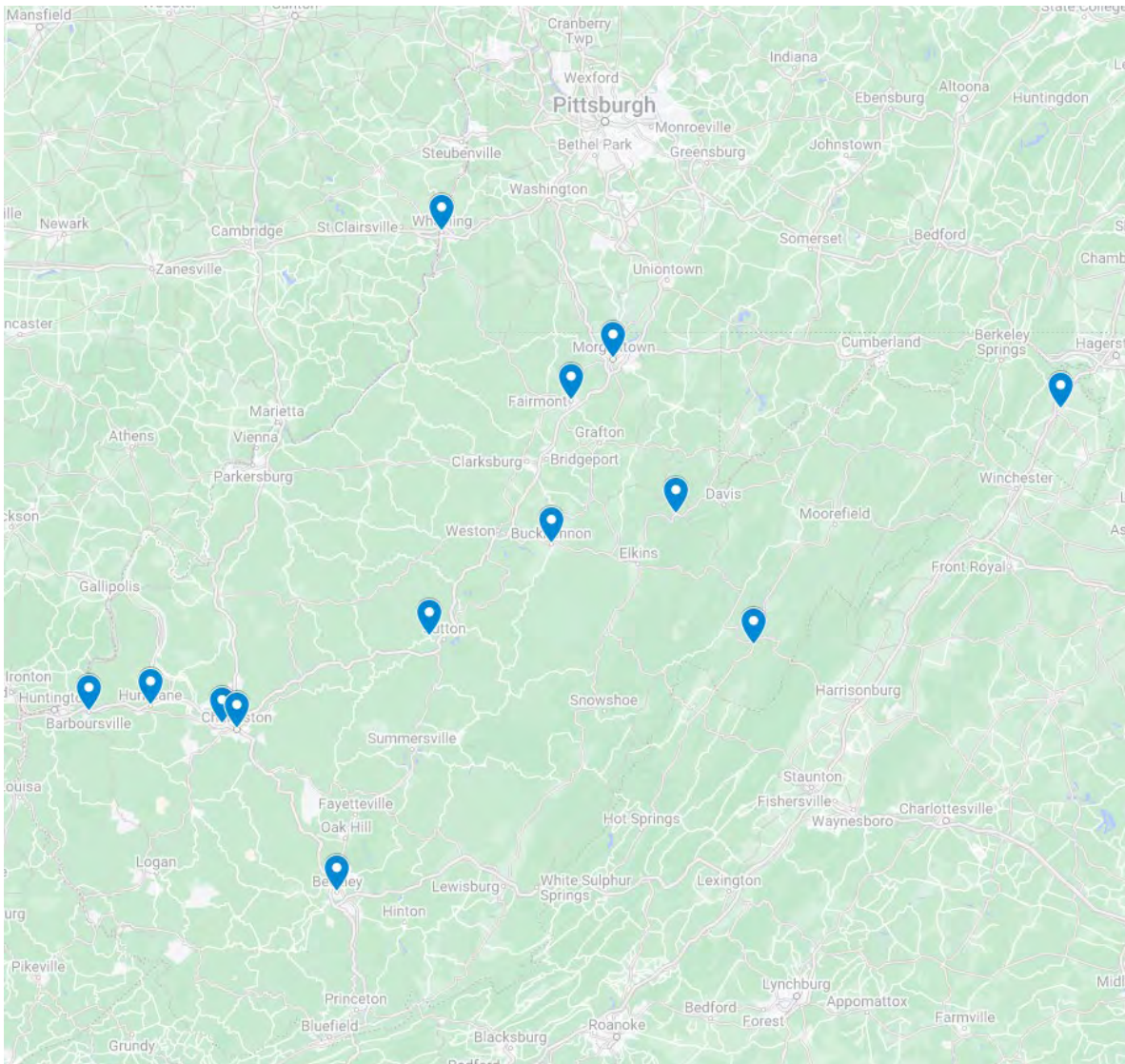
1. statewide listening sessions
2. one-on-one meetings with state cabinet secretaries, commissioners, and agency directors
3. members of the Digital Equity Steering Committee
4. outreach to organizations serving covered populations and
5. paper and electronic surveys, including the [West Virginia Digital Access and Equity Survey](#)

The DAE survey is designed to collect information regarding existing programs, activities, and skill-development opportunities in West Virginia. The survey was targeted to organizations representing or serving at least one of the eight covered populations.

DAE survey responses helped supplement information gathered from other sources, such as the statewide survey detailed in Section 0. The 60-question survey included questions regarding digital literacy, plans that overlap with the goals and objectives of the BEAD and Digital Equity programs, and broadband service subsidies. Depending on the type of respondent, the survey asked different questions to reduce length and complexity. West Virginia rigorously marketed the survey but acknowledges the barriers preventing individuals from completing it. However, West Virginia was able to supplement the survey results with other data collections methods, for example: discussions with organizations that included the survey material. Importantly, these included meetings with Internet Service Providers of various sizes that operate in West Virginia, including Armstrong, Micrologic, Citynet, Prodigy, GigaBeam, Comcast, and Frontier, as well as other stakeholders such as Appalachian Power, the West Virginia Department of Education, NTIA, EducationSuperHighway, and more.

Figure 20 maps the locations of the respondents. Most respondents are in or near urban areas, which may be a result of them having both access to broadband and communication channels.

Figure 20: West Virginia DAE Survey Respondents by Location



WVDED asked all non-Internet Service Provider DAE survey respondents for information on programs or services they offer, and which covered populations they target. They were provided the following list of potential services to choose from:

- Digital literacy and digital skills training
- Subsidized or low cost-devices (e.g., computers, tablets) with affordable maintenance costs
- Awareness and outreach activities related to digital inclusion
- Public computer labs
- Digital Navigator programs
- Loaner computer/hotspot programs
- Computer refurbishing programs
- Discount or subsidized broadband service and equipment programs

- Public Wi-Fi and networks (public access points)
- One-to-one computer training programs

The survey revealed that there are organizations in West Virginia that offer a range of digital inclusion awareness and outreach activities. Most of these groups orient their programs to anyone, not to targeted populations, indicating that a more deliberate focus on “covered populations” may be needed. See the State Digital Equity Plan for further details.

8.4 Statewide Survey

The Core Planning Team gathered input from West Virginia’s covered populations and communities through an online survey. This West Virginia Broadband Survey was developed in partnership with Thomas P. Miller and Associates (TPMA), with additional input provided by the DE Steering Committee and the WVU Survey Research Center. The Core Planning Team engaged TPMA to collect responses that would add additional context to previous findings and contact individuals that might not have been able to attend the RPDC listening sessions. As with the rest of the data collection plan, the statewide survey was in line with WVDED’s focus on meeting people where they are. As such, paper versions of the survey were also distributed—the only difference being the omission of the speed test present in the online version. TPMA worked with WVDED, the Core Planning Team, and the Digital Equity Steering Committee to identify potential distribution lists and strategies for reaching unconnected West Virginians, including through U.S. Mail surveys. West Virginia’s public libraries were another core distribution partner, as they made the paper version of the survey available to library patrons.

The survey requested demographic information from respondents so their covered population status could be determined. Demographic information gathered through the survey included race, household income, age, education level, English learner status, veteran status, general household location info, disability status, and more. Following the demographic screening, the survey requested information on the respondent’s relationship to broadband service and internet-enabled technology. Specifically, this section asked questions on internet usage, digital skill level, service connection type, service connection speed, service cost, satisfaction with service, barriers, device usage, affordability program knowledge, and more. By gathering this information, WVDED and TPMA were able to conduct meaningful analysis, relating important digital equity data to covered populations.

Responses were collected from June 28, 2023, to August 16, 2023. WVDED and TPMA collected 2,050 responses, with 422 responses being from ZIP codes with high numbers of unserved or underserved BSLs. The number of responses exceeded expectations. The demographic composition of survey respondents closely matched West Virginia’s demographics statewide. Over 70% of respondents reported internet speeds below 25/3 or had no internet at all.

Key findings in the analysis shed further light on digital equity barriers in West Virginia. Complementing findings from the RPDC listening sessions, the statewide survey’s most prominently reported barriers were *lack of broadband service availability*, *available but unreliable service*, and *high cost of broadband service*. Approximately half of the West Virginians surveyed reported paying between \$59.99 and \$119.99 monthly for internet service. Most West Virginians surveyed reported dissatisfaction with their internet speed, reliability, and internet service provider. The data is clear: West Virginians are spending too much money for too little in return. Results from this survey have been incorporated into the State

Digital Equity Plan's needs assessment and will further inform West Virginia's BEAD and Digital Equity initiatives. The final survey report will be posted to broadband.wv.gov in early 2024.

9. FCC Affordable Connectivity Program

The Federal Communications Commission (FCC) administers the Affordable Connectivity Program (ACP). The ACP helps ensure that households can afford the broadband they need for work, school, healthcare, and more by providing a \$30 discount on monthly internet bills. The FCC estimates that about 48 million families are eligible for the program—nearly 40 percent of households in the United States.

Affordable Connectivity Program (ACP) enrollment in West Virginia falls well below the national average, particularly in more rural counties. In the West Virginia Digital Equity Plan, WVDED has prioritized increased ACP enrollment as a key objective. WVDED anticipates multiple barriers that may slow progress. These barriers mirror those of many other federally funded programs and include:

- a. distrust or disbelief in a program offering cheaper or free service
- b. difficulty reaching individuals in more rural locations, of which there are many in the State
- c. the eventual expiration of the program or depletion of funds

WVDED has dedicated a portion of its Digital Equity Planning Grant to ACP outreach activities. In addition, WVDED applied for and was awarded additional grant funds through the FCC's National Competitive Outreach Program (NCOP) to continue ACP promotion in West Virginia.

There are no easy answers for West Virginians worried about the eventual expiration of funds. At the time of this report, the Affordable Connectivity Program has approximately \$4.8 billion remaining from the original \$17 billion allocation.¹⁴ As states push to enroll more residents, the ACP will likely deplete funds at an accelerating rate. In March 2023 alone, the total ACP support claimed totaled approximately \$390 million. It is estimated that ACP funding will be completely drawn down in the second quarter of 2024.

At the time of this report, there have been moves to renew ACP funding at the federal level, with some calling for the Universal Service Fund (USF) to be used as a funding vehicle; however, the program's future after funding is depleted is still uncertain. WVDED is monitoring the situation surrounding ACP's renewal as it develops.

9.1 Affordable Connectivity Program Enrollment Resources

A household is eligible if one member of the household meets at least one of the criteria below:

- Income at or below 200% of Federal Poverty Guidelines;

¹⁴ Universal Service Administrative Co., ACP Enrollment and Claims Tracker, <https://www.usac.org/about/affordable-connectivity-program/ACP-enrollment-and-claims-tracker/>. accessed May 19, 2023

- Assistance programs, such as SNAP, Medicaid, Federal Public Housing Assistance, SSI, WIC, or Lifeline;
- Free and reduced school lunch or school breakfast, such as USDA Community Eligibility Provision;
- Federal Pell Grant during the current award year; or
- Eligibility for provider's existing low-income program.

There are two steps to enroll in the ACP:

1. Visit <https://www.getinternet.gov> to submit an online or mail-in application.
2. Contact a participating provider to apply the discount.



Additional resources are available at:

Support Contact

ACPSupport@usac.org or 1-877-384-2575

9.2 FCC National Competitive Outreach Program

To bolster its resources and efforts to promote ACP adoption in West Virginia, WVDED applied for the second round of funding under the FCC's ACP Outreach Grant Program. The official goal and objectives of the ACP Outreach Grant Program are as follows:

“The goal of the ACP Outreach Grant Program is to facilitate the promotion of the ACP and increase awareness of and participation in the ACP among eligible households.

To support the ACP Outreach Grant Program goal, the FCC identified three objectives:

- Expand and support diverse and impactful outreach efforts nationwide;
- Strengthen outreach partners nationwide by empowering them to mobilize people and organizations to help raise awareness about the ACP; and
- Increase ACP enrollment as a result of ACP Outreach Grant Program funded activities.”

The ACP Outreach Grant Program is divided into two categories: the National Competitive Outreach Program (NCOP) and the Tribal Competitive Outreach Program (TCOP). WVDED applied for and was awarded \$400,000 in NCOP funds.

The Core Planning Team has created a two-pronged approach to improving ACP awareness and increasing enrollment in West Virginia. NCOP funds will be used to:

1. Create an ACP media campaign to bolster ACP awareness through radio, television,

- newspaper, social media, and other digital advertisements.
2. Plan and facilitate a series of in-person enrollment assistance events. Taking best practices from campaigns in other states, these events will meet West Virginians where they are and assist them in fully enrolling in the ACP.

The media campaign will be planned and facilitated by the West Virginia Department of Commerce's Communications team (Commerce Communications) and the private advertising firm, Digital Relativity—both of which are established partners. At the time of this report, WVDED has not yet identified a partner in planning and facilitating the in-person event campaign.

NCOP Timeline:

1. Second round of NCOP funding announced (May 25, 2023).
2. WVDED submits application for NCOP funding (June 30, 2023).
3. NCOP Awards announced, WVDED awarded \$400,000 (August 17, 2023).
4. Start date of period of performance (September 1, 2023).
5. ACP media campaign (December 2023—June 2024).
6. WVDED releases subrecipient application (December 21, 2023).
7. ACP enrollment assistance events (May—August 2024).
8. End date of period of performance (August 31, 2024).

10. AEP Logan-Mingo and Southeastern West Virginia Broadband Projects

AEP's involvement in seeking broadband funding dates to 2019, where they prepared a Broadband Feasibility Study for the construction of a middle mile fiber optic network in Logan and Mingo Counties, known as the Logan-Mingo Broadband Project. Studies must be reviewed and approved by the Broadband Council and the West Virginia Public Service Commission.

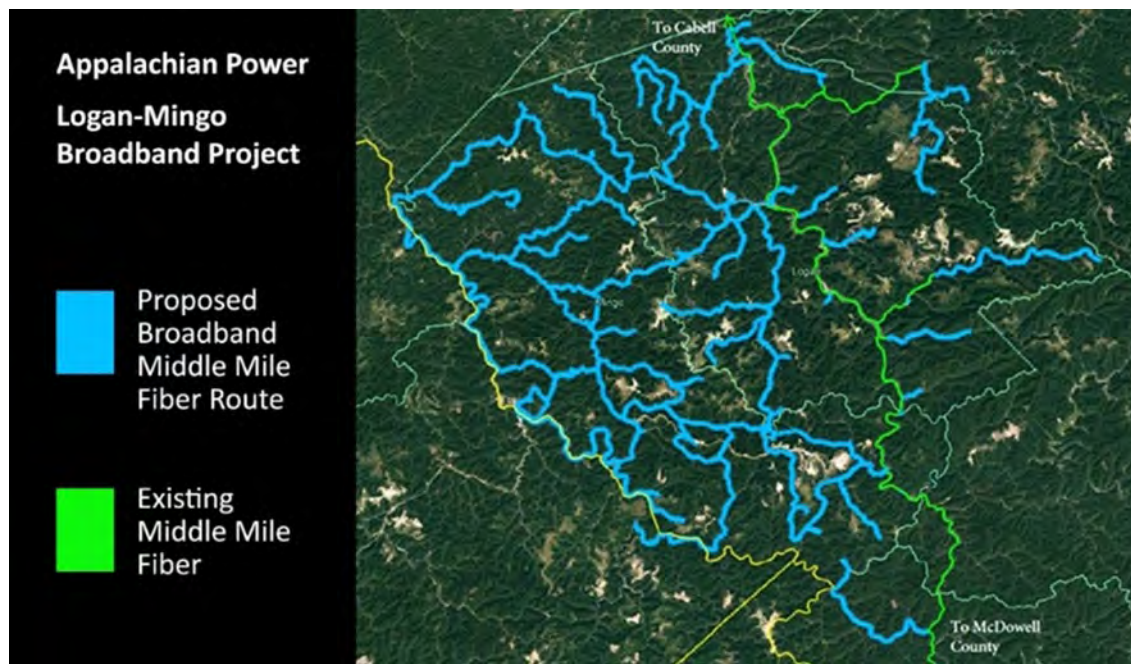


Figure 13.1: AEP Logan-Mingo Project Proposal

The network will provide utility communications and contain fiber optic strands that AEP could lease to internet service providers who would provide broadband internet service to end-user, “last mile” customers through the construction of more than 400 new fiber miles and the utilization of approximately 200 existing fiber miles to reach more than 13,000 unserved and underserved locations.

AEP’s study included a review of statutory requirements authorizing electric utilities to prepare such studies. It also identified regulatory and public policy hurdles, a number of which were addressed in legislation enacted into law in 2020. In 2020, the West Virginia Legislature passed HB 4619, which amended §24-2-1 of the W. Va Code and added a new section, §24-2-10, both of which concern the powers and duties of the West Virginia Public Service Commission (WVPSC). HB 4619 allows electric utilities to install “middle mile” broadband fiber on their existing infrastructure to facilitate the expansion of broadband service into unserved and underserved areas of the State.

AEP conducted a Request for Proposal process and selected GigaBeam Networks, LLC, as an internet service provider partner. The project continued with formal submission to the WVPSC, in 2020.

In 2022, NTIA announced the award of \$19.6 million to complete a fiber to the premise project to bring qualified broadband to more than 12,000 unserved households across the region. This application was submitted by the Logan County Commission in partnership with the Mingo County Commission and GigaBeam Networks, LLC. The project team held an official construction kickoff event in July 2022.

Following the success of the Logan-Mingo project, AEP developed a second feasibility study in 2022 which included five counties in southeastern West Virginia, including Raleigh, Mercer, Wyoming, McDowell, and Summers counties.

Appalachian Power Company and Wheeling Power Company submitted a Broadband feasibility study proposing a project to install 658 miles of new broadband fiber and utilize 297 miles of existing fiber within

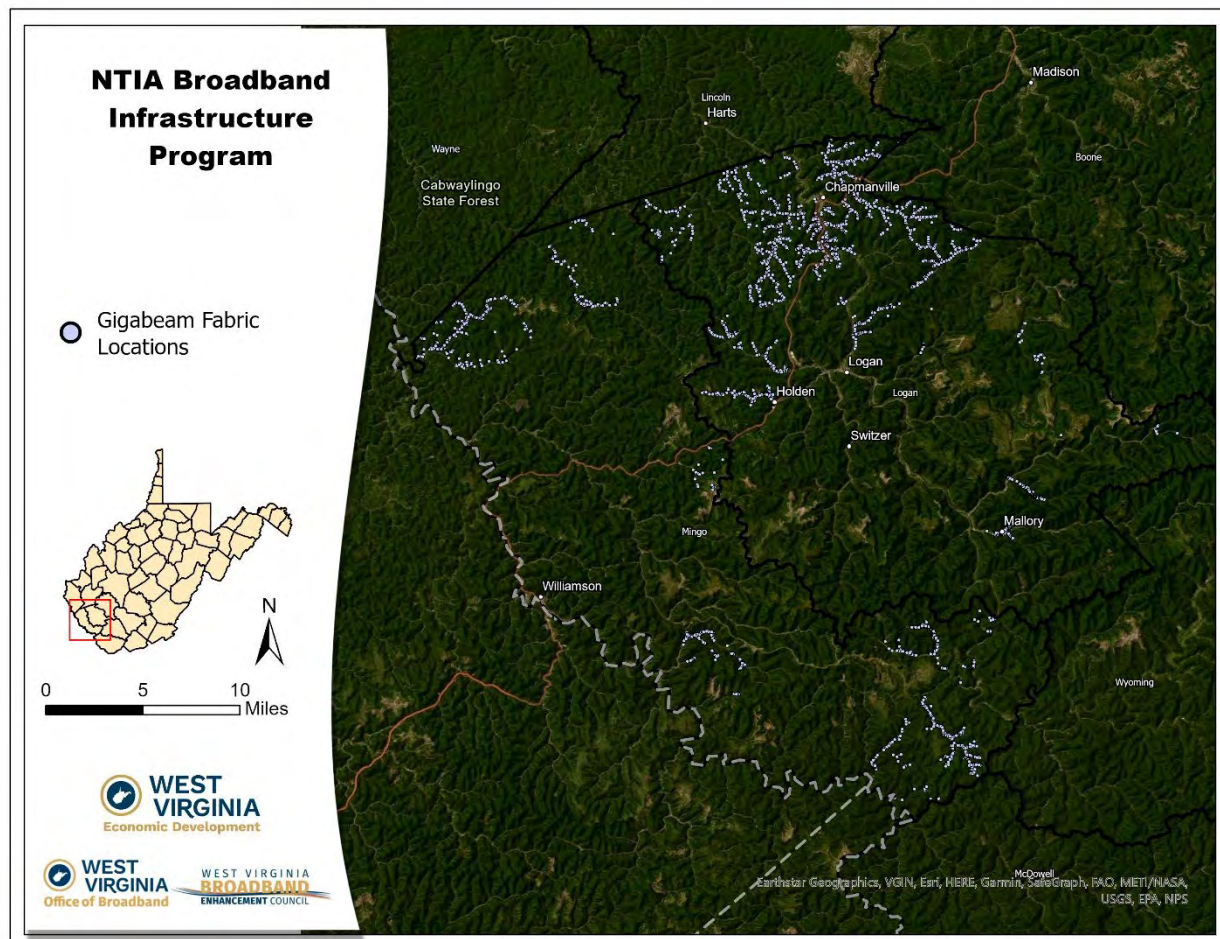
portions of McDowell, Mercer, Raleigh, Summers, and Wyoming Counties to the Council on January 9, 2023.

The Council approved the Study and suggested terms for inclusion in a lease between the company and its partner by a Resolution adopted on March 9, 2023 subject to the Applicants submitting to the Council the final negotiated lease between the Applicants and the successful ISP. The Council reviewed the draft lease terms at its December 2023 meeting. The Council is authorized pursuant to *West Virginia Code* §31G-4-5 to review and render a decision upon a feasibility study for a middle-mile broadband expansion project proposed by an electric utility.

In June of 2023, Appalachian Power received a \$25 million grant from the National Telecommunications and Information Administration (NTIA) to expand its fiber optic network in southern West Virginia, aiming to provide broadband access to around 22,000 unserved households. The project involves constructing 658 miles of new fiber optic cable and utilizing an additional 297 miles of existing infrastructure. The project plan was unanimously approved by the West Virginia Broadband Enhancement Council in March of 2023. This project will not only improve broadband connectivity but also enhance the efficiency and effectiveness of Appalachian Power's electrical grid management.

The AEP Logan-Mingo Fabric locations are now shown as funded in the [FCC Broadband Funding Map](#).

Figure 21: NTIA Logan-Mingo award Fabric locations.



11. USDA Broadband Programs

In anticipation of increased funding for broadband expansion in rural areas, the U.S. Department of Agriculture (USDA), West Virginia Rural Development, team partnered with the West Virginia Broadband Enhancement Council to conduct a series of workshops in West Virginia with a focus on increasing the number of USDA project proposals from West Virginia. This focused initiative resulted in numerous successful proposals through which project teams secured USDA funds for broadband expansion projects in West Virginia. The USDA awarded significant funds to projects in West Virginia through three broadband programs listed below. WVDED's involvement in two of the three USDA programs is detailed subsequently.

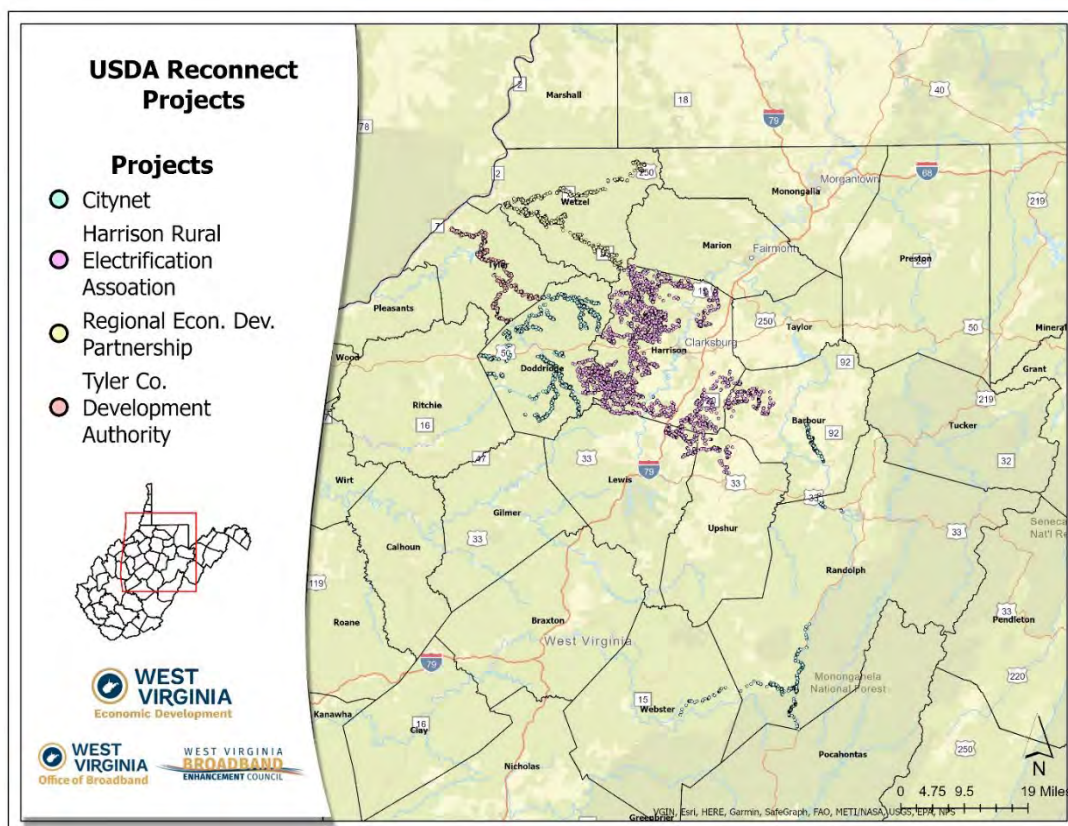
- USDA ReConnect
- USDA Community Connect
- USDA Distance Learning and Medicine

U.S. Department of Agriculture (USDA) ReConnect. In 2018, Congress provided \$600 million to USDA to expand broadband infrastructure deployment in rural America. Funds are awarded to projects with

financially sustainable business models that bring high-speed broadband to rural homes, businesses, farms, ranches, and community facilities such as first responders, healthcare sites, and schools. Since then, Congress has appropriated an additional approximately \$4 billion for the program. Eligible applicants include both for- and nonprofit entities, such as cooperatives, corporations, state and local governments, territories, and tribes. For a geographic area to be eligible, it must be rural and at least 50% of households in the area must lack sufficient access to broadband service. Funding opportunities are available each fiscal year.

Four USDA ReConnect projects are underway in West Virginia, representing approximately \$40 million in USDA loans and grants.¹⁵

Figure 22: USDA awarded locations.

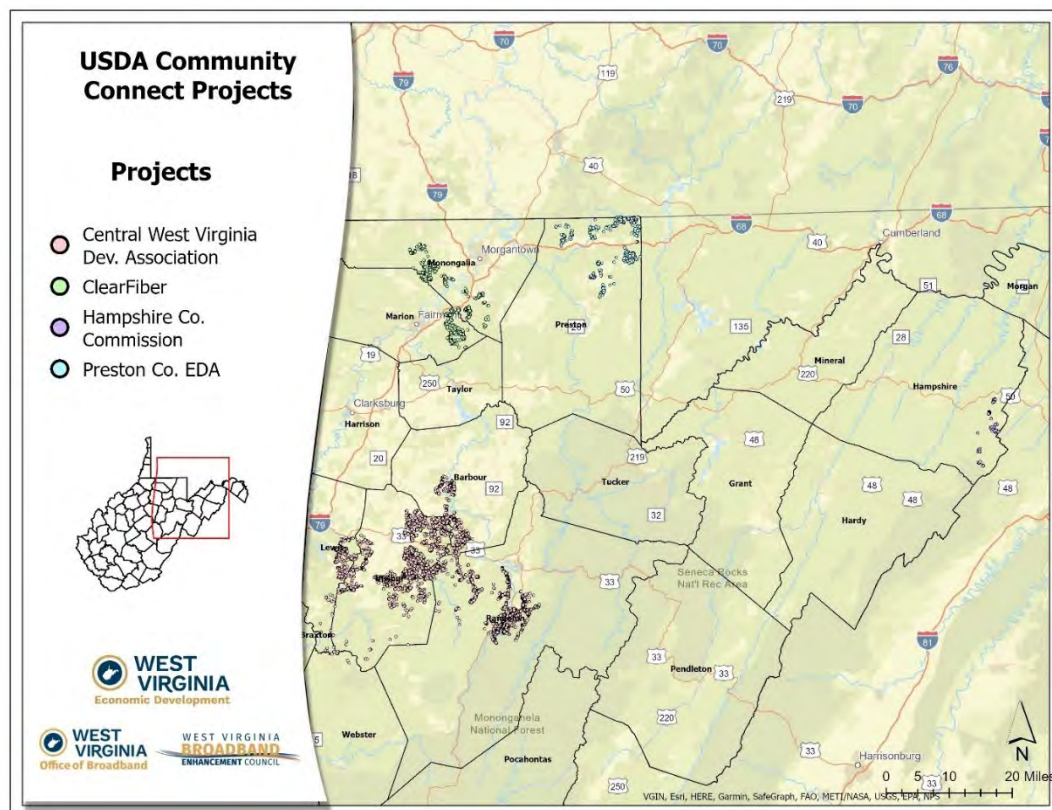


¹⁵ WVOB, West Virginia Broadband Enhancement Council, 2022 Annual Report, https://www.wvlegislature.gov/legisdocs/reports/agency/B19_CY_2022_15837.pdf, p. 86

U.S. Department of Agriculture (USDA) Community Connect. Community Connect provides financial assistance to state and local governments, nonprofits, and other for-profit organizations which intend to provide broadband service in rural, economically challenged communities where service does not currently exist. Funds may be used in rural areas considered unserved under BEAD (less than 25/3 Mbps internet availability). Additional funding opportunities are available from USDA in FY 2023.

West Virginia received four Community Connect grants intended to cover 8,000 households from 2017 to 2020. Of these, three grant projects were expected to provide broadband service meeting or exceeding the requirements for full service as defined under the BEAD program.

Figure 23: USDA Community Connect awarded locations.



USDA Distance Learning and Telemedicine (DLT). The USDA Distance Learning and Telemedicine (DLT) program helps rural communities use the unique capabilities of telecommunications to connect to each other and to the world, overcoming the effects of remoteness and low population density. West Virginia was strongly represented in recent application cycles and funding announcements. For more information, visit: <https://www.rd.usda.gov/programs-services/telecommunications-programs/distance-learning-telemedicine-grants>. Applications were accepted through January 30, 2023.

Recent USDA Distance Learning and Telemedicine (DLT) Funding Awards in West Virginia

a. Clay County School District \$464,614

This USDA Rural Development investment will be used to provide distance learning technology and telemedicine stations for each of Clay County's six schools. This project will benefit approximately 2,000 residents in Clay County, West Virginia.

b. Pocahontas County Board of Education \$434,779

This USDA Rural Development investment will be used to purchase distance learning supplies that will connect students K-7 grade and teachers, K-12 grade with Microsoft Surface Go 2 and Microsoft Surface Pro 7 devices. The project will benefit approximately 3,000 residents in rural West Virginia.

c. Shepherd University \$96,891

This USDA Rural Development investment will be used to fund the "Bridges to Degrees" project that creates pathways to postsecondary education for rural high school students by providing high quality distance learning through Shepherd University, located in the Eastern Panhandle of West Virginia. The university proposes to provide distance learning through live-streamed dual enrollment courses to over 400 eligible high school students per calendar year.

d. West Virginia Higher Education Policy Commission \$744,328

This Rural Development investment will be used to purchase distance learning equipment that will develop a statewide network to provide interactive telecommunications links. The West Virginia Higher Education Policy Commission will serve as the hub of the project and will serve approximately 5,600 residents in rural West Virginia.

Table 13: USDA DLT projects.

USDA Distance Learning and Telemedicine (DLT) Projects in West Virginia		
<i>Approved and Administered by U.S. Department of Agriculture</i>		
Applicant	Awarded Funds	Year
1. Rainelle Medical Center	\$614,048	2021
2. Ohio Valley Physician	\$429,841	2021
3. Morgan County Partnership	\$999,999	2021
4. New River CTC	\$149,789	2021
5. Lincoln County Primary Care	\$686,656	2021
6. Glenville State	\$292,000	2021
7. Garret County* <i>MD applicant with benefit to West Virginia</i>	\$430,000	2020
8. Cabell Huntington Hospital Foundation, Inc.	\$206,000	2019
9. Salem University, LLC	\$231,436	2019
10. Charleston Area Medical Center Health Education and Research Institute	\$163,223	2018
11. CHANGE, Inc.	\$500,000	2018
12. Toronto Board of Education* <i>OH applicant with service benefit in WV</i>	\$500,000	2018
13. Lincoln County Board of Education	\$440,295	2017
14. Charleston Area Medical Center Health Education and Research Institute	\$100,079	2017

12. Appalachian Regional Commission

ARC is a partnership between states and the Federal Government. Covering 423 counties across 13 states, ARC works with local Appalachian communities to improve overall quality of life. ARC has a variety of grant programs that local governments can use for efforts that align with its Strategic Plan, including building and improving Appalachian businesses, workforce ecosystem, infrastructure, culture and tourism, and community leaders and capacity.¹⁶ In many cases, funds can be used for broadband-related projects. For instance, in January 2023, ARC awarded \$6.3 million to bolster broadband access across 50 communities through its Appalachian Regional Initiative for Strong Communities (ARISE).¹⁷

¹⁶ Appalachian Regional Commission (ARC), Appalachia Envisioned: ARC's 2022-2026 Strategic Plan, Accessed April 10, 2023, <https://www.arc.gov/strategicplan/>.

¹⁷ ARC, Appalachian Regional Initiative for Stronger Economies (ARISE), Accessed April 10, 2023, <https://www.arc.gov/ARISE/>.

ARC can either directly fund projects itself or it can provide the funds to states, such as West Virginia, for state-level grant programs. Funding opportunities are ongoing and are available each fiscal year.

ARC funds broadband through three programs in West Virginia: Partnerships for Workforce and Economic Revitalization (POWER), Central Appalachian Broadband, and North Central Appalachian Broadband. WVDED administers most ARC-funded broadband infrastructure projects in West Virginia. WVDED may accept applications and recommend approval of projects under the latter two funding sources. ARC grants are unique in that POWER projects are approved directly by ARC whereas Central Appalachian and Northcentral Appalachian funds are granted to WVDED for administration of a state-led program in which WVDED has a more direct role in project selection. In either scenario, WVDED is the Responsible State Basic Agency (RSBA) for ARC broadband infrastructure projects.

Seven ARC grants are commitments to provide broadband service meeting or exceeding the requirements for full service as defined under the BEAD program.

12.1 ARC POWER

The Appalachian Regional Commission (ARC) launched the (Partnerships for Opportunity and Workforce and Economic Revitalization) [POWER Initiative](#) to help communities and regions that have been affected by job losses in coal mining, coal power plant operations, and coal-related supply chain industries due to the changing economics of America's energy production. The West Virginia Department of Economic Development, Office of Broadband, administers ARC POWER broadband projects in West Virginia.

In 2022, ARC awarded POWER funds to the Boone County Economic Development Authority and the Summers County Commission. Projects funded in 2020 and 2021 include the Pocahontas County Commission, Wayne County Commission, and Woodlands Development Group, and the Thundercloud project; a 25-mile fiber loop in downtown Huntington. Recent ARC POWER projects are briefly described below:

- **Pocahontas County Commission:** received a \$2,500,000 to build FTTH to over 1,000 households in Pocahontas County.
- **Wayne County Commission:** received \$1,551,000 to build a 16-mile middle-mile route along WV-152 connecting households and businesses along the route with fiber. The project also targets last-mile FTTH in Lavallette, Beech Fork, and Arden. The future potential of this middle-mile route can expand FTTH to rural areas of Wayne County.
- **Woodlands Development Group:** a non-profit entity received \$2,500,000 to construct a 33-mile middle-mile fiber route along Route 33, from Elkins to Davis.
- **Boone County Community and Economic Development Corporation:** received \$1,692,507 to build an 8.2 fiber network with one wireless tower. This initiative will support the redevelopment of surface coal mine with businesses that rely on connectivity including a 3,000-acre solar field and other diversified industries.
- **Summers County Commission:** received \$2,400,000 to build 28 miles of fiber to connect 489 homes and 179 businesses in Summers County.

12.2 Central Appalachian Broadband

In addition to ARC POWER funding, the Office of Broadband administers the ARC Central Appalachian Broadband program through designation as a Responsible State Basic Agency (RSBA).

The goal of this ARC funding initiative is to provide funding for the deployment of broadband that will increase economic and business development or provide service to unserved customers. Funding is limited to ARC-designated distressed counties in West Virginia that have been most negatively impacted by the downturn in the coal industry. Eligible counties are Boone, Clay, Logan, Lincoln, McDowell, Mingo, Webster, and Wyoming.

Current projects include the \$1.9 million Southern West Virginia Broadband Expansion project awarded to the Webster County EDA.

12.3 Community Development Block Grant

Congress established CDBG through the Housing and Community Development Act of 1974.¹⁸ The West Virginia CDBG provides grants to local governments that do not receive CDBG direct funding from the U.S. Department of Housing and Urban Development (HUD). The grants focus on providing decent housing, a suitable living environment, and expanded economic opportunities principally for persons of low to moderate income. In response to COVID-19, HUD also granted West Virginia approximately \$20 million for a supplementary program called CDBG-CV. CDBG-CV funding can be used for broadband projects focused on closing the digital divide. Funding opportunities are available each fiscal year.

Through 2020, approximately \$6.3 million in CDBG funding has been dedicated to broadband planning and infrastructure projects. Twenty CDBG projects, covering 41 counties, involved broadband planning and community outreach. Eleven projects specifically focus on broadband infrastructure deployment, of which seven are commitments to provide broadband service matching or exceeding the requirements to be fully served under the BEAD program.

13. State and Federal Policy Updates

West Virginia's leaders continue to develop policies that encourage broadband development throughout the State. The West Virginia Legislature has advanced innovative broadband policies, developing an ideal environment for broadband infrastructure expansion. These policies encourage competition, discourage monopolies, and enhance the business environment for Internet Service Providers within the State of West Virginia.

State, federal and local policies and regulations must recognize broadband as essential economic infrastructure and align in support of broadband infrastructure expansion. The West Virginia Broadband

¹⁸ Congress.gov. "S.3066 - 93rd Congress (1973-1974): Housing and Community Development Act of 1974." August 22, 1974. <https://www.congress.gov/bill/93rd-congress/senate-bill/3066>.

Enhancement Council and the West Virginia Office of Broadband will continue to advocate for policies and regulations that support efforts to expand broadband throughout West Virginia.

13.1 West Virginia Economic Development Authority Broadband Loan Insurance Fund

Since 2018, West Virginia has provided incentives for investors to support the deployment of broadband infrastructure, through a non-lapsing fund administered by the WVEDA.

As outlined in W. Va. Code § 31-15-8, et seq, the **Broadband Loan Insurance Program** (BLINS) insures the repayment of debt on capital costs related to broadband service which is provided either:

- a) to unserved or underserved areas of the State
- b) by linking a segment of a network operator's core network to a local network plant that serves an unserved area or an area with no more than two wireline providers

The BLINS program is essential to broadband expansion in West Virginia. One of the requirements of the RDOF process was for winning bidders to post a letter of credit with the FCC for up to 30% of the award amount to secure performance. To support this requirement, Governor Justice issued Executive Order (EO) 66-20 on September 3, 2020, pursuant to his authority to suspend statutory regulations during a state of emergency. EO 66-20 suspended the per-recipient and per-program dollar limits in the BLINS program and directed the WVEDA to make modifications to the BLINS program consistent with the EO.

The WVEDA, in consultation with the Council, completed modifications to its guidelines for the BLINS program, providing insurance to banks for letters of credit to winning RDOF bidders.

Statutory changes were implemented in the 2021 Legislative Session enabling the BLINS program to support applicants proposing broadband expansion in West Virginia using funds from RDOF and other federal programs.

Under the BLINS program prior to the Governor's Executive Order, the WVEDA could insure up to 80% of a bank loan for a broadband infrastructure or development project. The insured portion could not exceed \$10 million and had a maximum term of 20 years. The WVEDA's revised guidelines issued in November 2020, permit the BLINS program to insure up to 100% of a letter of credit, and the cap of \$10 million per recipient has been eliminated. This change will further encourage and support broadband projects.

Prior to the Governor's Executive Order, the program required the certification of eligibility by the Council. Since the FCC and other federal programs have extensive vetting processes, the Council recognized this certification under a federal broadband expansion program.

Public notice is required for all projects, except those that plan to provide a downstream data rate of at least 1Gbps throughout the proposed project service area. The process for funding has detailed requirements for as-built plans, mapping, modifications, project completion, and closeout.

13.2 West Virginia Attorney General Consumer Complaint

As directed by House Bill 2002, and in compliance with W.Va. Code §31G-1A-2(b)(9), the West Virginia Office of Broadband has coordinated with the West Virginia Attorney General Consumer Complaint Division to establish procedures for consumer complaints related to broadband service.

Consumers who believe that they have been the victim of unlawful practices in the purchases of goods and services are first encouraged to fill out the appropriate form and return it to the West Virginia Attorney General's (WVAGO's) Consumer Protection Division. The office provides three options for submitting complaints:

- Option 1: Download and print the forms, complete and mail (with any copies of documents related to the complaint) to: Office of the Attorney General, Consumer Protection Division, P.O. Box 1789, Charleston, WV 25326-1789.
- Option 2: Download and fill out the appropriate PDF form and email the form and any additional documents related to the complaint in PDF format to complaint@wvago.gov. (25MB limit on attachments)
- Option 3: Complete an online version of the General Consumer Complaint form.

Individuals who need assistance may call the WVAGO Consumer Protection Hotline at 1-800-368-8808. Clicking the links below will download a PDF of the form in a separate tab.

- [Instructions for Filing a Consumer Complaint Form](#)
- [Documents Needed for Filing a General Consumer Complaint Form](#)
- [Broadband Complaint Form](#)

13.3 Dig Once Policy

In 2018, the West Virginia Legislature enacted a Dig Once Policy, passing legislation that will create incentives over the long term to create spare conduit or opportunities to lay fiber in a joint trench. HB 4447 created a new article of code, §17-2E-1 *et seq.*, that established the “Dig Once” policy. It directed the West Virginia Division of Highways (WVDOH) to install vacant broadband conduit during highway construction projects. Interested ISPs apply to the Council for approval to use the conduit. Conduit is leased at cost-based rates.

The Council is also charged with creating a strategy to facilitate the timely and efficient deployment of broadband infrastructure on state-owned lands and buildings, and to assist local governments with development of similar Dig Once and deployment policies.

The West Virginia Division of Highways (WVDOH) has updated [guidance](#) to implementing the State's Dig Once Policy Act. [The Dig Once Application Submission Checklist](#) is now available online.

In 2019, Senate Bill 270 amended the Dig Once Policy, W. Va. Code § 17-2E-1 *et seq.*, in addition to W. Va. Code § 17-2A-17a, which governs utility accommodation leases. Section 17-2A-17a provides that the Commissioner (Commissioner) of the WVDOH may lease real property held by the Division to accommodate any utility providing telecommunications or broadband services if the Commissioner finds that entering said lease is in the public interest.

The utility is required to pay fair market value for the real property interest under the lease. Senate Bill 270 amends this section to provide that the fair market value of such property interest shall be \$0 in monetary compensation. However, the legislation does not prohibit in-kind compensation if the lease concerns multiple districts within the Division.

Senate Bill 270 amended § 17-2E-3 of the Dig Once Policy to provide that the fair market value of the Division's spare conduit or related facilities shall be \$0 in monetary compensation. It also amends the Dig Once Policy by eliminating the newspaper notice requirements, and by reducing the notice period from thirty (30) days to fifteen (15) days.

- This legislation also provided new exemptions from the Dig Once Policy's requirements, including:
- Projects that are less than 1,000 feet in length,
- Projects that use the direct bury of cable or wire,
- Projects that are solely for the service of entities involved in national security matters, and
- Projects where the carrier installs an amount of spare conduit or innerduct equal to what is being installed for its own use and which is made available for lease to competing carriers on a nondiscriminatory basis at rates established by the FCC.

Finally, the legislation permits the WVDOH, with the Governor's written approval, to transfer or assign ownership, control, or any rights related to any in-kind compensation received by the Division to any other state agency.

Based on WVDED's experience and findings, there are few instances of trenches being shared as a result of the Dig Once program. The program may require modifications to be more effective. As part of its BEAD planning process, WVDED has initiated a Broadband Middle Mile Infrastructure Study (Middle Mile Study) for the State of West Virginia. As a component of broader goals, the study will incorporate a review of existing Dig Once policies. Included in the West Virginia BEAD Plan is the goal to improve Dig Once policies to fully take advantage of their unharnessed potential. WVDED will recommend improvements to the State's Dig Once policy, including establishing guidelines for laying conduit during major highway construction or reconstruction.

13.4 Policy Concerning Bridge Attachments

Bridge Attachments are governed by the WVDOH Utility Manual, available at the following link: https://transportation.wv.gov/highways/engineering/files/ACCOMMODATION_OF_UTILITIES.pdf

13.5 One-Touch Make-Ready

Integral to broadband network expansion, pole attachment regulations can provide a defined process to attach poles owned by electric or telecommunications utilities. As noted by NTIA, pole attachment regulations “...are a potential barrier to entry if they make a proposed project economically nonviable, particularly in unserved rural areas.”

Over the years, attachers have sought to improve this process. At the federal level, the FCC issued the One Touch Make Ready (OTMR) order in 2018, which set out rules to streamline the make-ready and attachment processes. However, FCC regulations only apply to so-called “FCC states.” States are permitted to reverse-preempt federal regulations and adopt comparable regulations. West Virginia’s Public Service Commission has adopted rules addressing the pole attachment application process, including detailed deadlines for distinct steps, and a complaint process modeled on the FCC’s pole attachment complaint process. Under the West Virginia Public Service Commission’s pole attachment complaint process, an attacher can have the Public Service Commission adjudicate the reasonableness of a pole owner’s decision to approve, reject, or approve subject to conditions a pole attachment application, and the reasonableness of the charge proposed by the pole owner. The Public Service Commission made revised Rules for the Government of Pole Attachments effective as of January 13, 2023.

The Public Service Commission of West Virginia opened a “show cause” proceeding on its own initiative in 2022 to eliminate the practice of the State’s largest electric utility and its largest incumbent local exchange carrier which had been requiring pole attachers to make applications to both entities separately for poles that were jointly used by the ILEC and the electric utility. In June, 2023, the Public Service Commission approved a Joint Stipulation by the electric utility, the ILEC, and several intervening broadband providers which eliminated the dual application process, replacing it with a single application to be made to the electric utility, and establishing distinct deadlines for steps to be taken by the electric utility in responding to an application to attach.

W. Va. Code §31G also addresses pole access. W.Va. Code §31G-6-2 preempts local government pole attachment ordinances in favor of broadband service for pole attachments. Furthermore, §31G-6-2(b) states explicitly that the pole attachment policies of Investor-Owned Utilities, Incumbent Local Exchange Carriers, and Competitive Exchange Carriers will be “strictly construed in favor of encouraging and assisting broadband installation and deployment.”

West Virginia’s pole attachment regulations are comparable to those at the FCC and have similar OTMR timeframes. Regarding make-ready charges, pole owners must provide detailed estimates on a pole-by-pole basis and:

“...may not charge a new attacher to bring poles, attachments, or third-party equipment into compliance with current published safety, reliability, and pole owner construction standards guidelines if such poles, attachments, or third-party equipment were out of compliance because of work performed by a party other than the new attacher prior to the new attachment.”

While pole attachment regulations set a framework for attaching, companies must negotiate pole attachment agreements directly with pole owners. These agreements must comply with state

regulations, and if a pole owner refuses to negotiate in good faith and/or follow the regulations, a company may file a complaint with the Public Service Commission, even before it has an agreement with the pole owner.

While West Virginia's current statutes and rules addressing pole attachments are conducive to the deployment of broadband infrastructure, in practice there is still some room for potential roadblocks. One of these areas relates to make-ready cost recovery: **West Virginia's Pole Attachment Rule is explicit that new attachers should not be responsible for the costs to replace an already failing pole.**

Importantly, there is a mechanism to address disputes like these via the Public Service Commission's FCC-modeled dispute resolution process under the Public Service Commission's Pole Attachment Rules. The Public Service Commission's Pole Attachment Rules require that pole owners provide a **"detailed, itemized estimate" of make ready charges to attachers.**

13.6 Trench Sharing/Pole Attachment Rules

The June 16, 2022, Commission Orders adopting and implementing trench sharing rules also proposed revisions to the Rules for the Government of Pole Attachments, which Rules appear at 150 W. Va. C.S.R. 38. The revisions were necessitated by 2021 legislative amendments to the Make-Ready Pole Access Act in Chapter 31G, Article 4 of the West Virginia Code. Among other things, the amendments require the PSC to promulgate rules to address "abandoned cable, conductor, and related facilities attached to utility poles." They also require the promulgation of rules governing the "timely transfer of facilities from an old pole to a new pole and the removal of utility poles that have had electric facilities moved to new poles but continue to have other facilities attached in the telecommunications space on the old existing poles." Further, the amendments require the rules to include "the right and mechanism of the pole owner itself to transfer the facilities to the new pole, to remove the old pole, and to recover its costs fully and timely from the owner of the facilities transferred."

The PSC's proposed revisions to the Rules for the Government of Pole Attachments are attached to the Commission Order, which directs the revised Rules to be filed with the West Virginia Secretary of State and promulgated as proposed rules for comment. The Commission Order notes that the revised Rules do not enjoy the unanimous support of all members of the Task Force with respect to one issue. That issue is whether pole owners are mandated by the legislative amendments to the Make-Ready Pole Access Act to transfer abandoned attachments or facilities on an old pole.

The Commission Order notes that PSC staff interprets the amendments to require pole owners to make such a transfer, whereas certain telecommunications carriers and utilities on the Task Force read the amendments as being permissive. The PSC accepts the view of its staff, and this is reflected in the Commission Order and in the revised Rules for the Government of Pole Attachments attached thereto.

Following the conclusion of the comment periods on the proposed rules, on November 14, 2022, the Commission adopted the rules proposed in its June 16, 2022 orders without modification.

13.7 Show Cause Petition

As referenced above, in November 2022, the West Virginia Public Service Commission entered a Commission Order in Case No. 22-0885-T-E-SC, a show cause proceeding initiated by PSC staff to require Frontier West Virginia, Inc. (“Frontier”) to show cause why the PSC should not prohibit Frontier from requiring duplicative pole attachment applications, timelines, and fees.

The proceeding arose out of telecommunication carrier complaints about the time and cost impediments they face attempting to attach to poles that are jointly used by Frontier and Monongahela Power Company/Potomac Edison Company (“MP/PE”). These “joint use poles” are subject to a 1988 Joint Use Agreement. The Joint Use Agreement gives Frontier the right to license space on the poles to third-parties for the installation of telecommunications facilities, including broadband fiber. Frontier and MP/PE required the third-party telecommunication carriers to submit applications for attachment to both Frontier and MP/PE, and to pay associated costs and fees to both Frontier and MP/PE. The carriers asserted that this duplicative application process, and the duplicative costs and fees, were unreasonable, unnecessary, and delayed the efficient deployment of broadband.

The Commission Order granted staff’s Petition and required Frontier and MP/PE to file a proposed new or amended joint use agreement expediting the pole attachment process and reducing the costs and fees imposed on third-party attachers. The Commission Order also required MP/PE to file with the PSC their policies and procedures for the review of pole attachment applications, and it directed Frontier and MP/PE to file with the PSC information on, among other things, the number of joint use poles the companies operate. Additionally, the Commission Order granted Citynet, LLC’s (“Citynet”) petition to intervene as a third-party telecommunication carrier that was prejudiced by the 1988 Joint Use Agreement and Frontier’s ineffective responses to Citynet’s pole attachment requests.

On December 15, 2022, MP/PE filed with the PSC proposed amendments to the Joint Use Agreement, amended policies and procedures for the review of pole attachment applications, and the pole count information requested by the PSC.

As noted above, in June, 2023, the Public Service Commission approved a Joint Stipulation by the electric utility, the ILEC, and several intervening broadband providers which eliminated the dual application process, replacing it with a single application to be made to the electric utility, and establishing distinct deadlines for steps to be taken by the electric utility in responding to an application to attach.

13.8 Vertical Real Estate Management and Availability Act

In 2020, HB 4015 created a new article of the W. Va. Code, § 31G-1-3; §§ 31G-5-1-4, known as the Vertical Real Estate Management and Availability Act, which requires the West Virginia Department of Administration to request proposals to manage state-owned Vertical Real Estate. “Vertical Real Estate”

is defined as towers or other structures mounted on rooftops or other prominent places, and any facilities associated with that structure, including ground facilities.

All funds in excess of management fees will be deposited by the West Virginia Office of Technology (WVOT) as follows: 50% to the Technology Infrastructure Reinvestment Fund for reinvestment in Vertical Real Estate or other infrastructure supporting broadband on state-owned property, and 50% to the Broadband Expansion Fund established in § 31G-1-5 and under the control of the Council.

WVOT is currently researching opportunities and potential relationship links of the vertical real estate initiative with other state technology initiatives, such as modernization of the State Interoperable Radio Network (SIRN) and the State's Wide Area Network. A professional services firm has been procured to address the full range of requirements to be completed as part of this project.

WVOT is currently examining the locations and condition of publicly owned tower assets and completing an asset inventory initiative. In April 2023, WVOT announced that it planned to finalize a draft RFP that



- a. create a valuation method for space on towers
- b. allow for the completion of needed tasks such as tower engineering
- c. review policies and processes for how the partnership will work
- d. enable local jurisdictions to build on the process to increase asset availability

13.9 Wireless Technology Business Property Valuation Act

This act of the Legislature created a new article of the West Virginia Code, designated as § 11-6L-1 *et seq.* and known as the Wireless Technology Business Property Valuation Act. It provides for the valuation of towers constructed or erected between July 1, 2019, and July 1, 2024, that host antenna or other equipment used for transmitting cellular or wireless communications signals.

Under this article, for the five years immediately following the tower's erection, the value of the tower is its "salvage value," or five percent of its original cost. Thereafter, the value of the tower is determined in accordance with existing West Virginia Code § 11-6-1 *et seq.*

13.10 Small Wireless Facilities Deployment Act

Senate Bill 3 also created a new chapter of the West Virginia Code, designated as § 31H-1-1 *et seq.* and known as the **Small Wireless Facilities Deployment Act**. The Legislature found that small wireless facilities, also known as small cells and distributed antenna systems, are often deployed most effectively in public rights-of-way. Therefore, this chapter allows wireless providers to collocate small wireless facilities and install, modify, or replace utility poles for such facilities in public rights-of-way.

This chapter also sets rates for the occupancy and use of the rights-of-way and provides some zoning and permitting guidelines.

13.11 Establishment of Broadband Cooperatives

The State of West Virginia also provides a statutory mechanism for residents, businesses, and political subdivisions in West Virginia who have no good options for internet service providers to create a cooperative association to address their community's connectivity problems. These co-ops are authorized to establish a service provider focused on their communities, bond or finance the building of infrastructure, and engage in other related activities (W. Va. Code § 31G-2-1 *et seq.*).

To assist communities considering this option, the West Virginia University Entrepreneurship & Innovation Law Clinic has developed a Broadband Toolkit. The Toolkit contains a diagram detailing options for broadband network development in West Virginia. The Broadband Enhancement Council will continue its partnership with the Law Clinic to assist communities in the formation of cooperatives. Communities pursuing this option are encouraged to contact the Broadband Enhancement Council for additional information.

13.12 Permitting Microtrenching

West Virginia Code § 31G-3-1 *et seq.* establishes the ability of fiber network builders to utilize microtrenching in the State of West Virginia, an innovative lower-cost, lower-impact option for installing underground fiber facilities. It also requires the installation of vacant conduit when a provider is performing microtrenching operations.

13.13 Nonregulation of VoIP Services

West Virginia also has legislation clarifying that the Public Service Commission does not have jurisdiction over companies that offer Voice over Internet Protocol (VoIP) telephony services. W. Va. Code § 24-2-1(e).

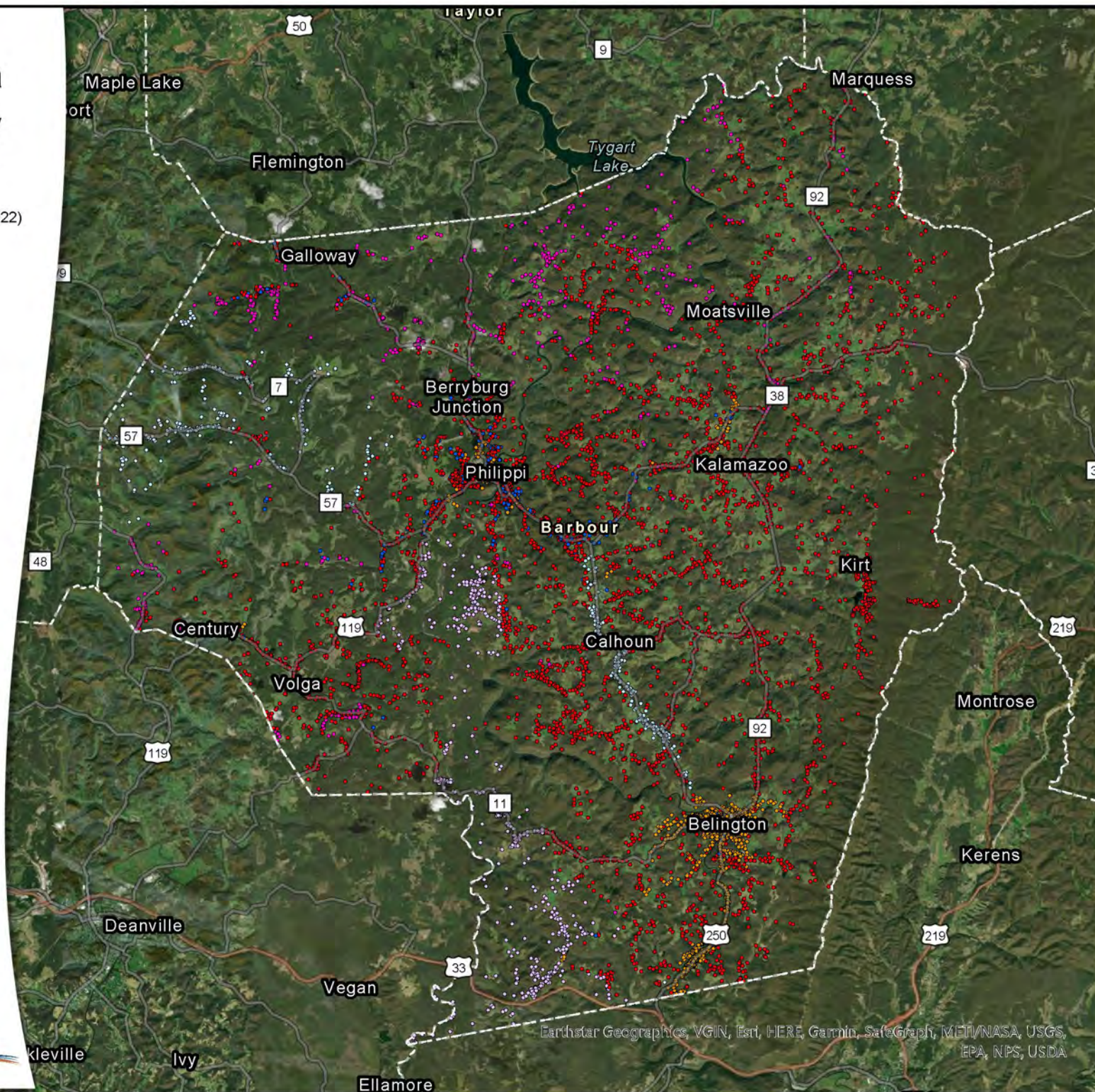
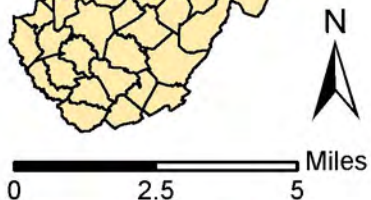
13.14 Oversight of Cable Franchising

Cable franchising in West Virginia is subject to licensing by the State or municipality under W. Va. Code § 24D-1-1 *et seq.* The Commission determines the appropriate authority for issuance of a license, prescribes the standards for construction, operation, and safe, adequate, and reliable service to subscribers. The municipality in which the cable system will be located usually serves as the permitting authority.

West Virginia Barbour County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- USDA ReConnect
- USDA Community Connect



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Berkeley County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

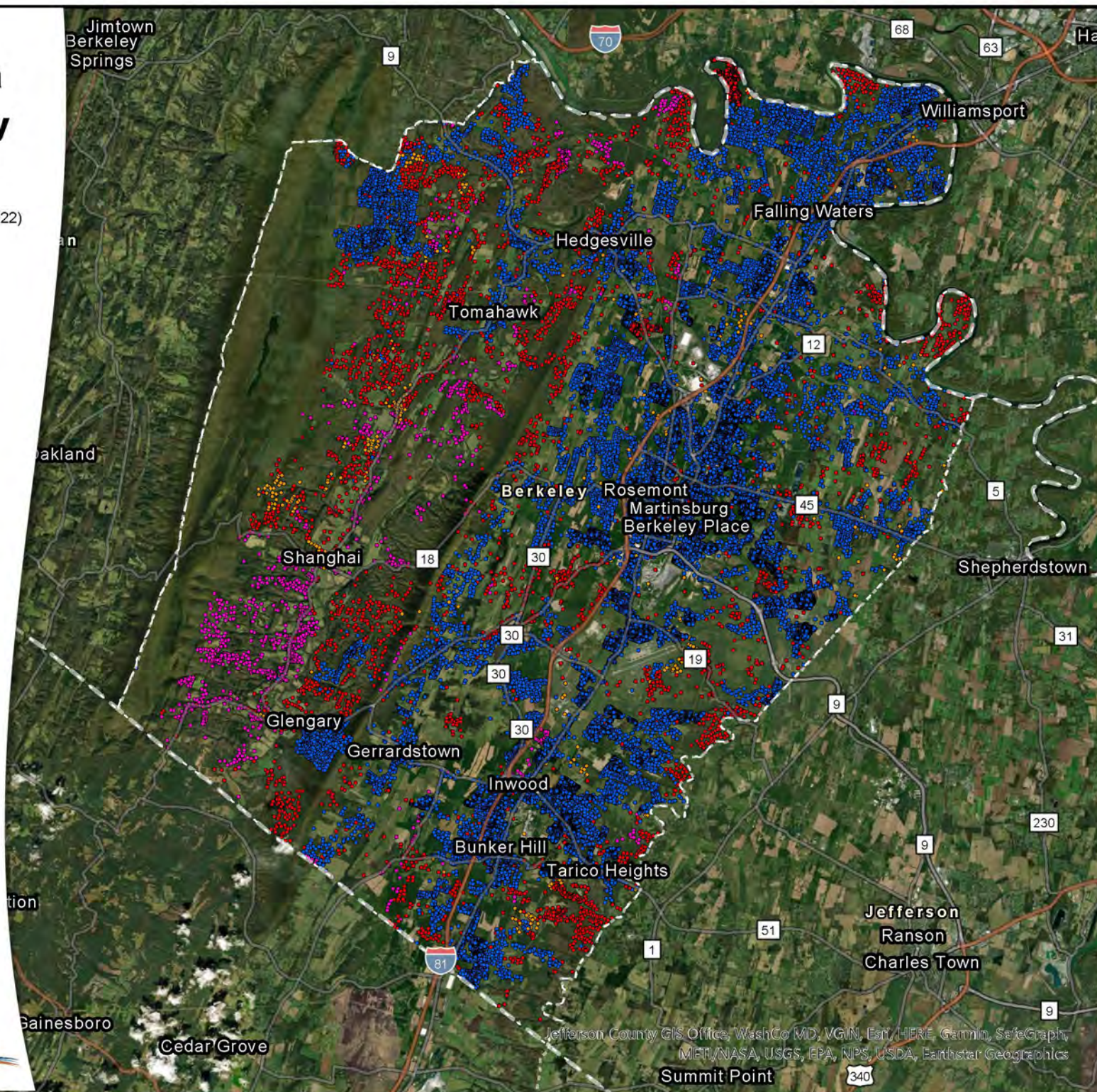
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF



0 2.5 5 Miles



WEST VIRGINIA
BROADBAND
ENHANCEMENT COUNCIL



Jefferson County GIS Office, WashCo MD, VGIN, Esri, HERE, Garmin, SafeGraph, MFR/NASA, USGS, EPA, NPS, USDA, Earthstar Geographics

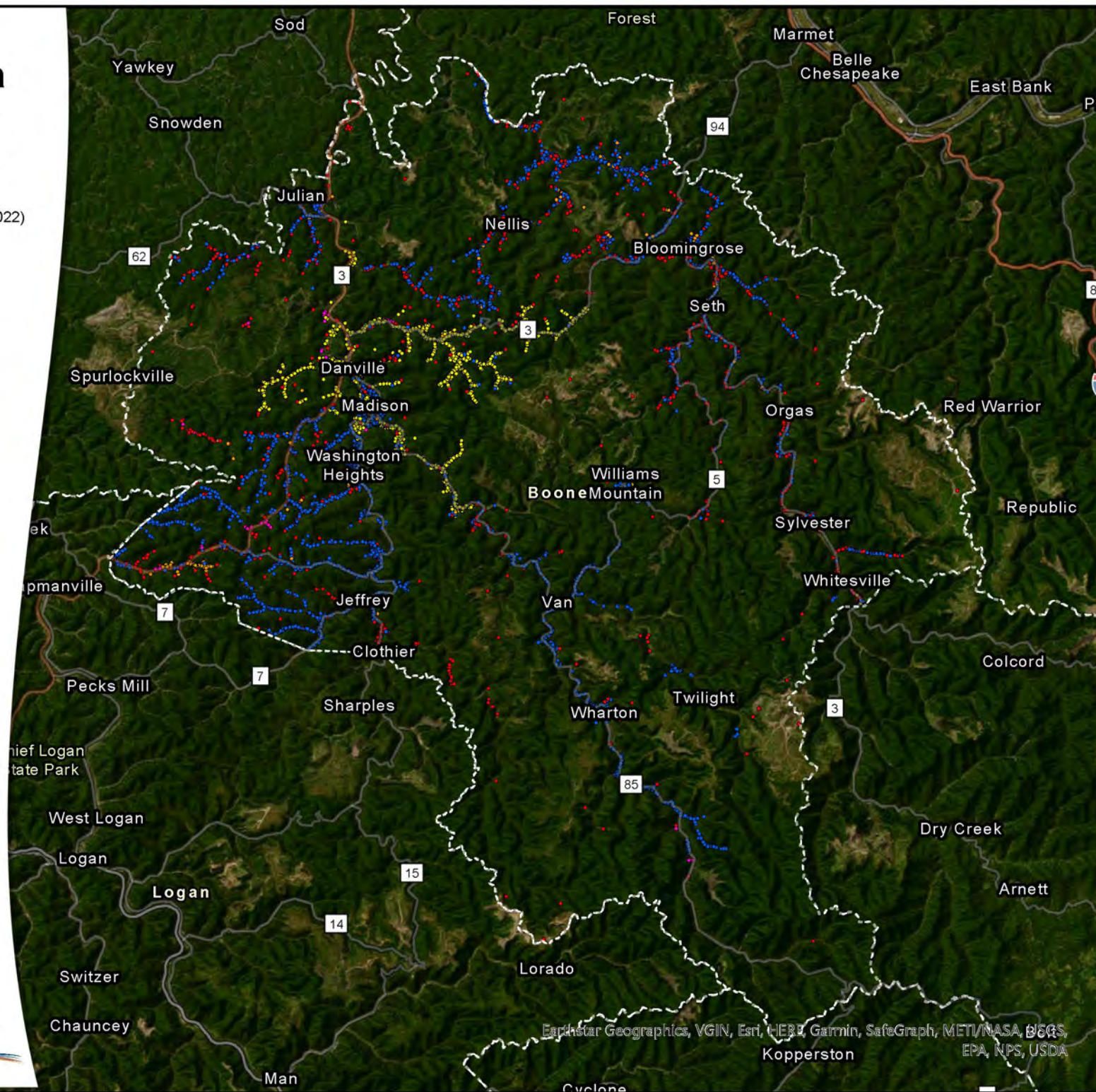
West Virginia Boone County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: MBPS
- FCC: RDOF
- NTIA BIP: Logan-Mingo



0 3.25 6.5 Miles

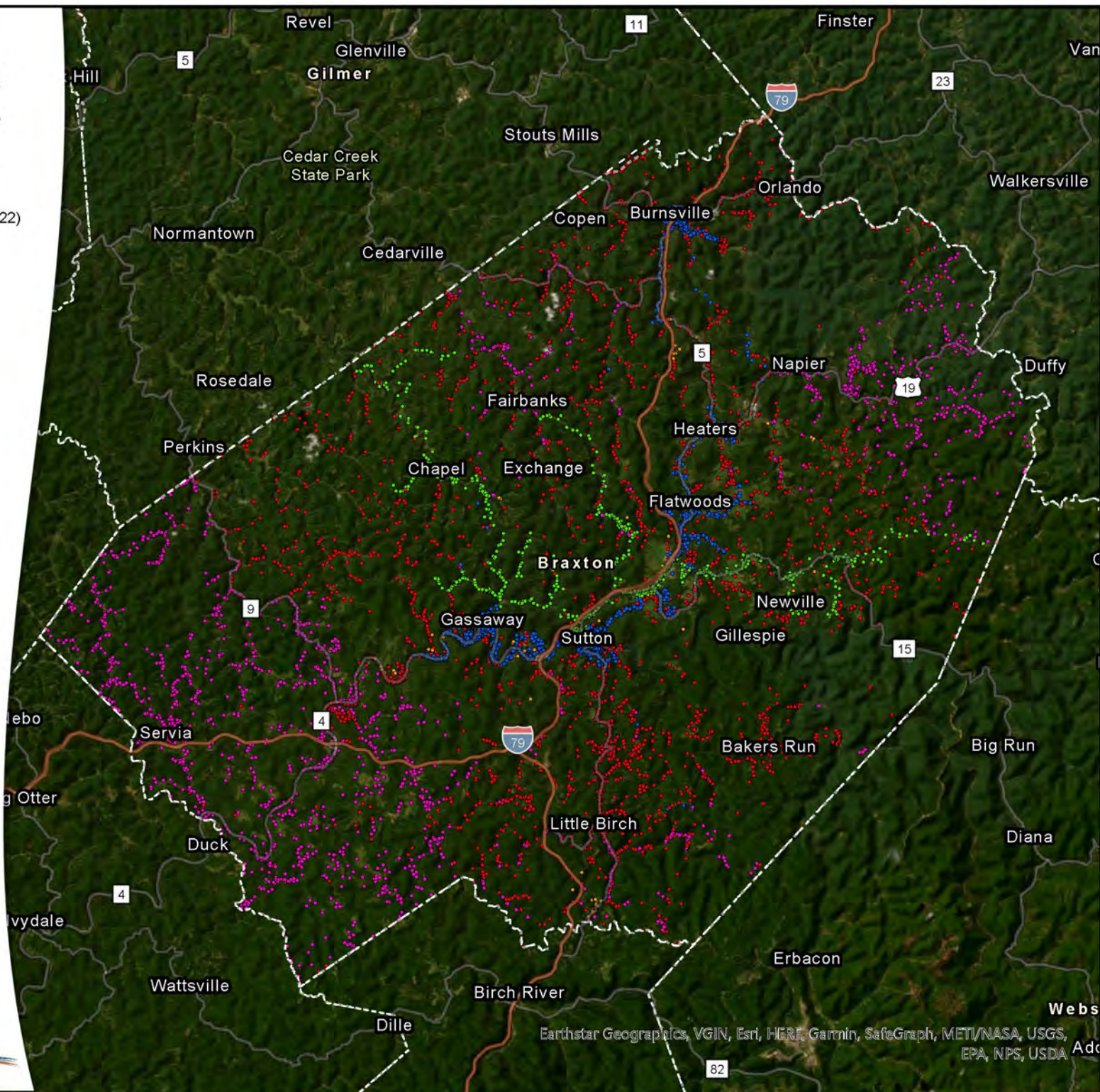


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, NOAA, EPA, NPS, USDA

West Virginia Braxton County BEAD Locations







(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF



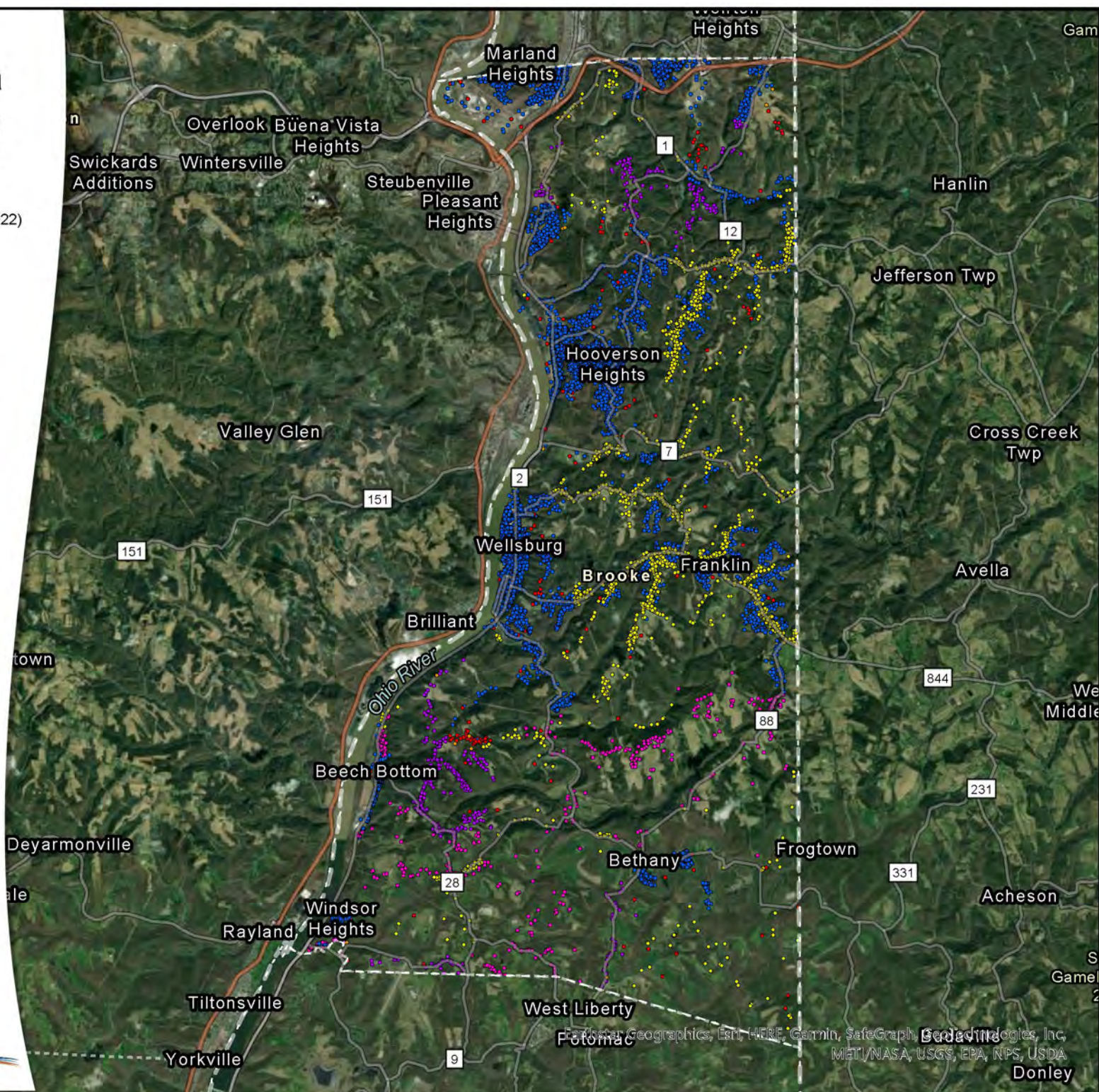
Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Adc

(BDC Fabric Locations as December 31, 2022)

-  BEAD: Unserved
-  BEAD: Underserved
-  BEAD: Served
-  ARPA: LEAD
-  ARPA: MBPS
-  FCC: RDOF



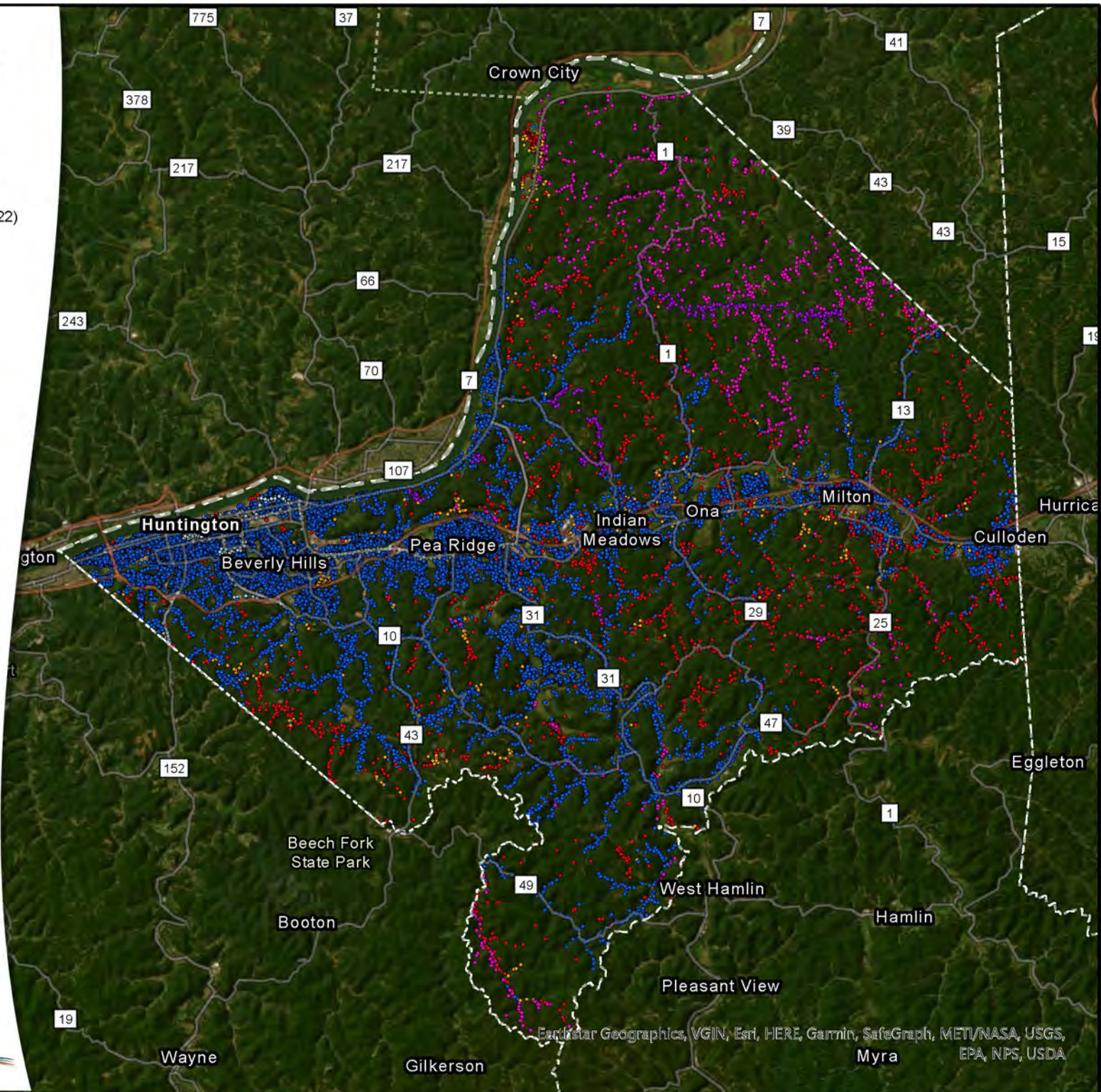
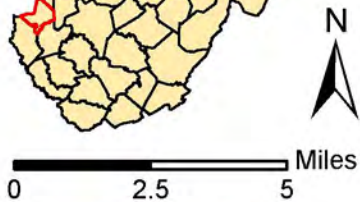
0 1.5 3 Miles



West Virginia Cabell County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF
- Appalachian Regional Commission

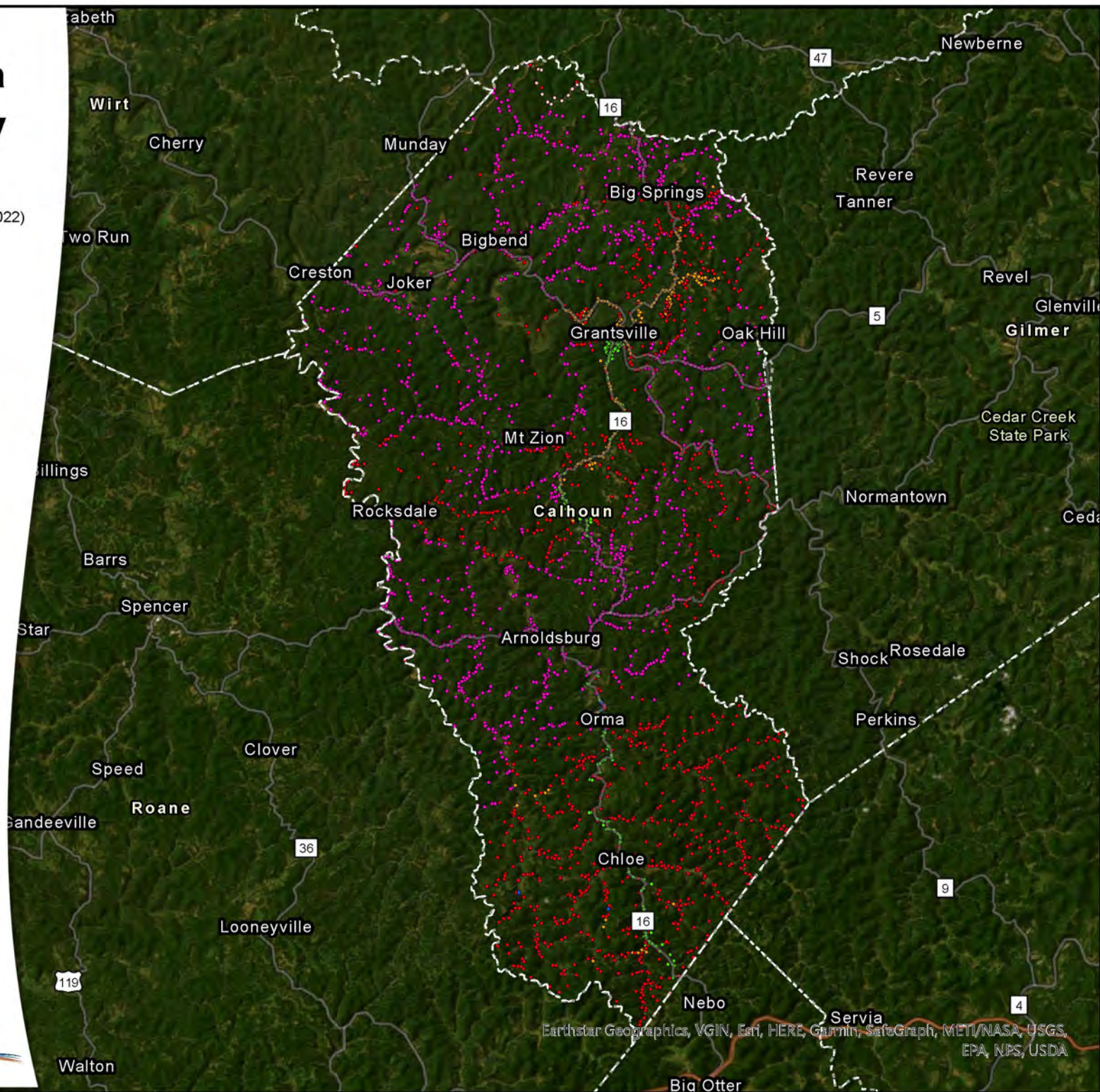
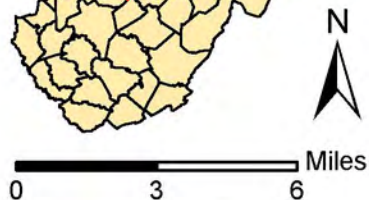


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Calhoun County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

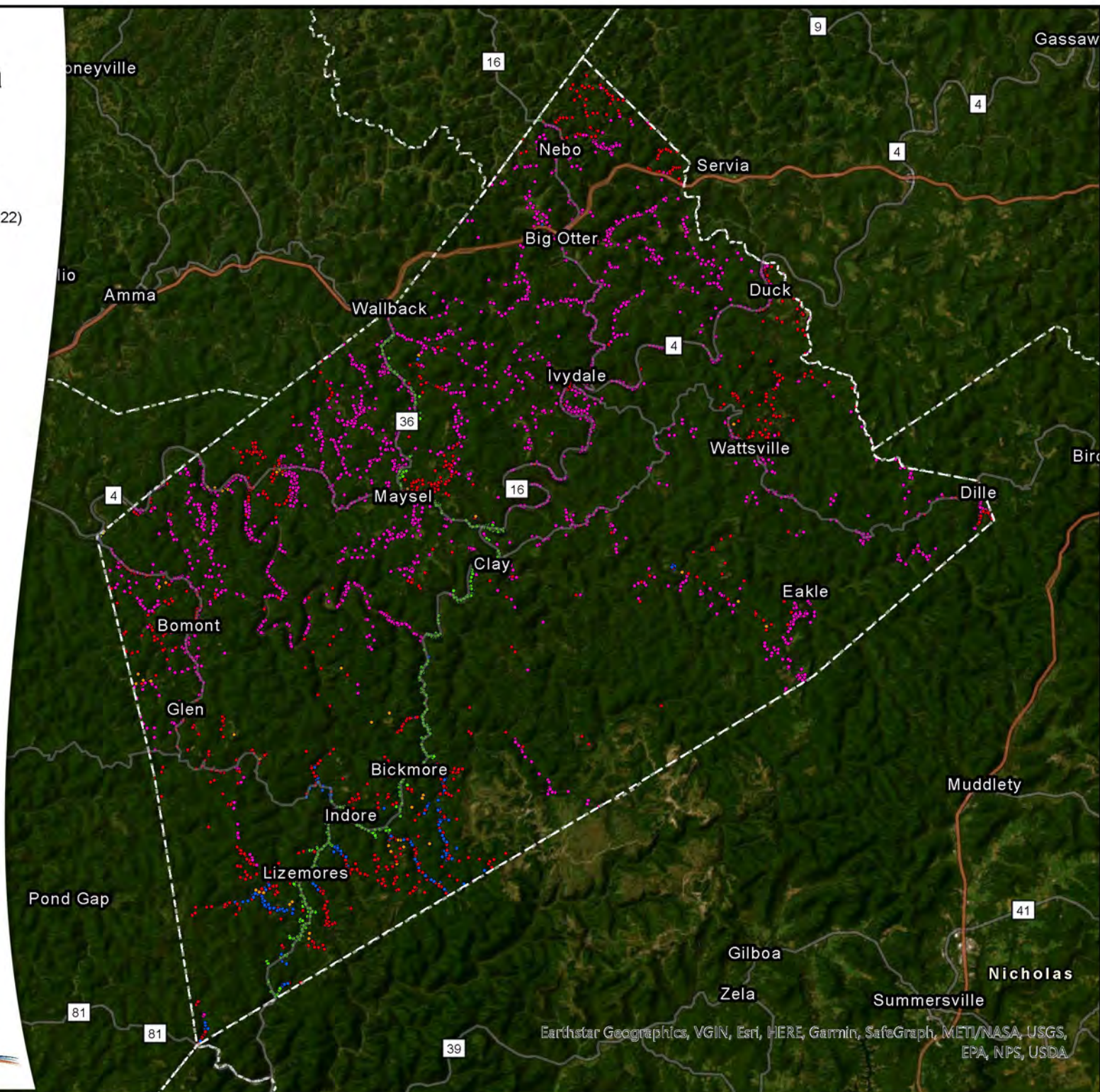
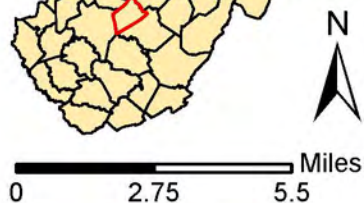
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: ACAM



West Virginia Clay County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF

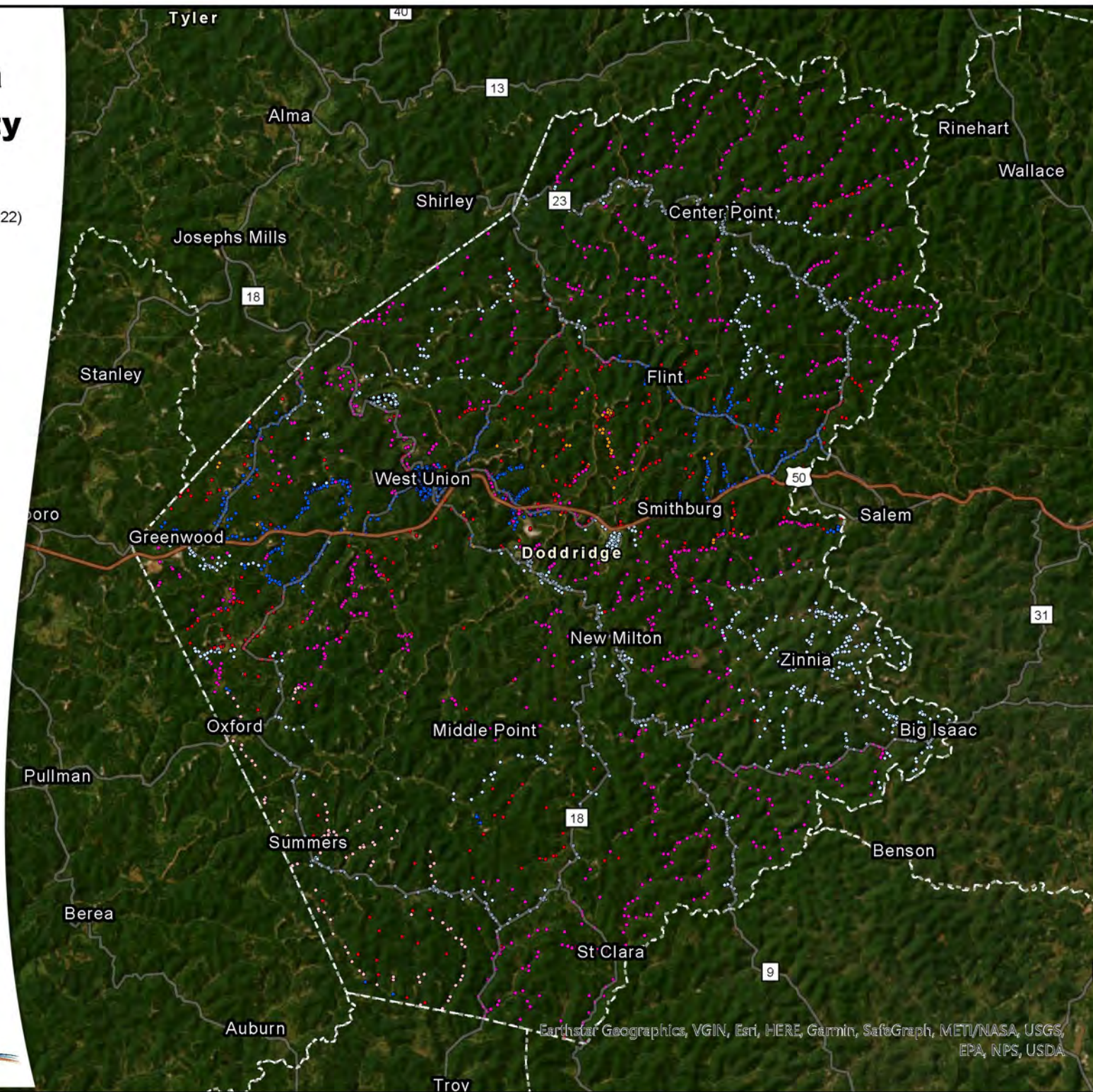
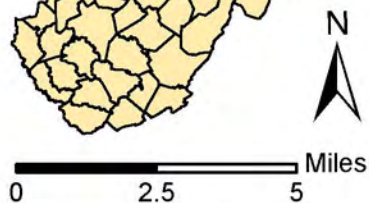


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Doddridge County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM
- USDA ReConnect



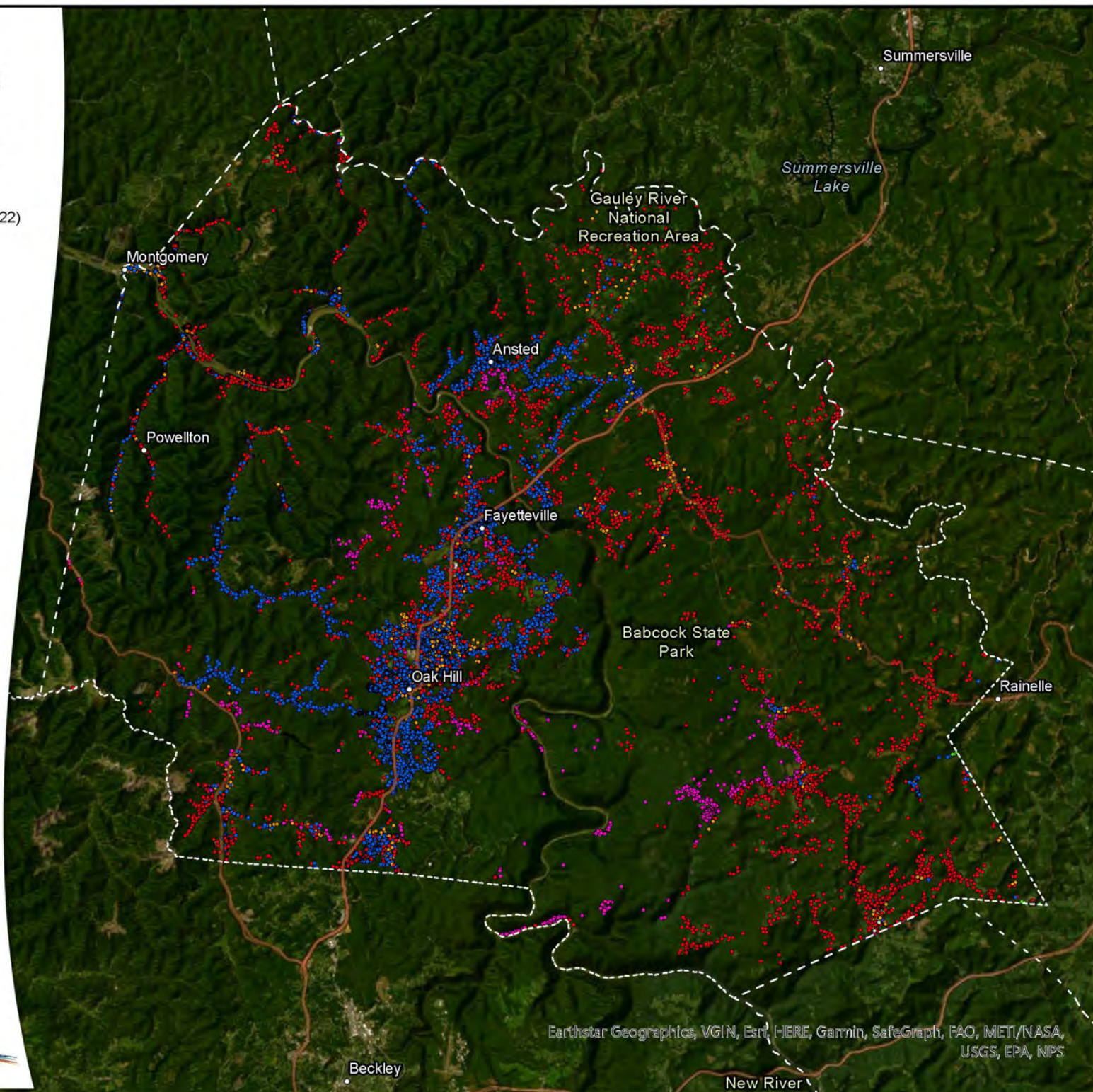
West Virginia Fayette County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- Community Development Block Grant



0 3.25 6.5 Miles

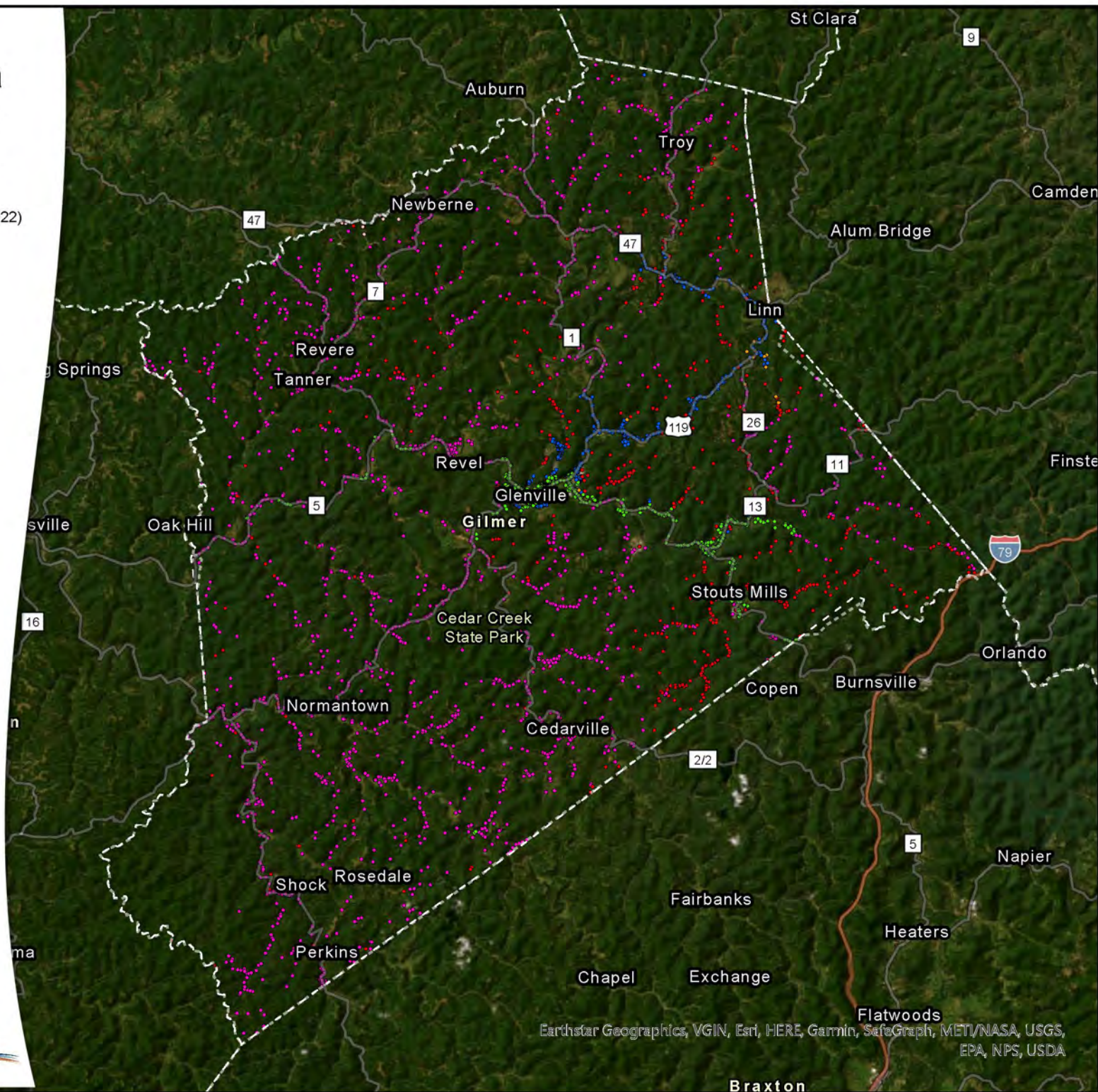
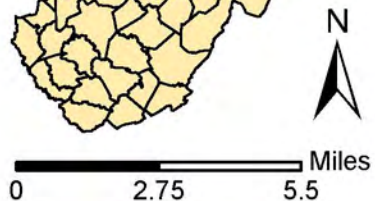


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS

West Virginia Gilmer County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: ACAM



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

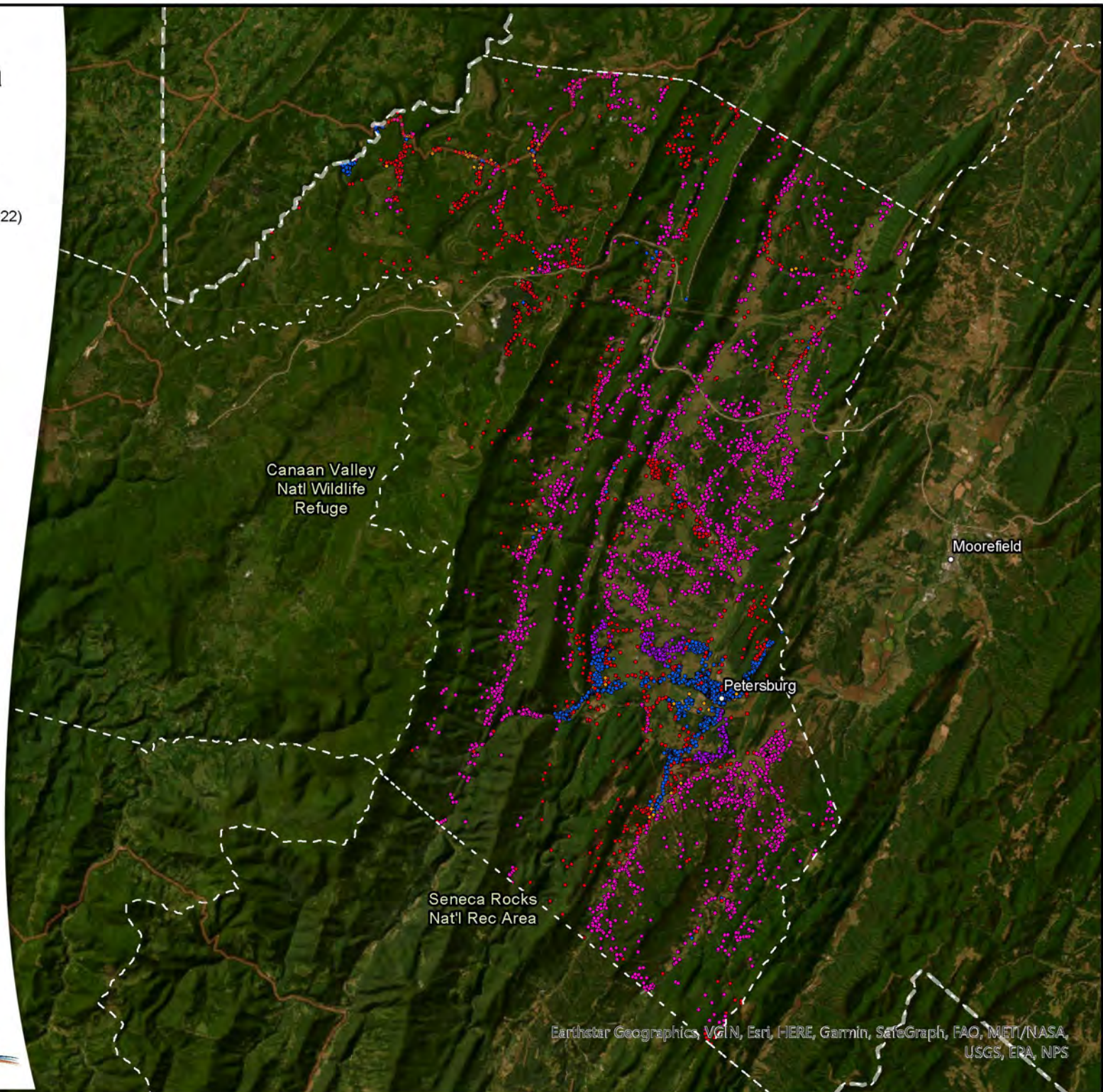
West Virginia Grant County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF



0 3.5 7 Miles



Earthstar Geographics, VGI/N, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, ERA, NPS

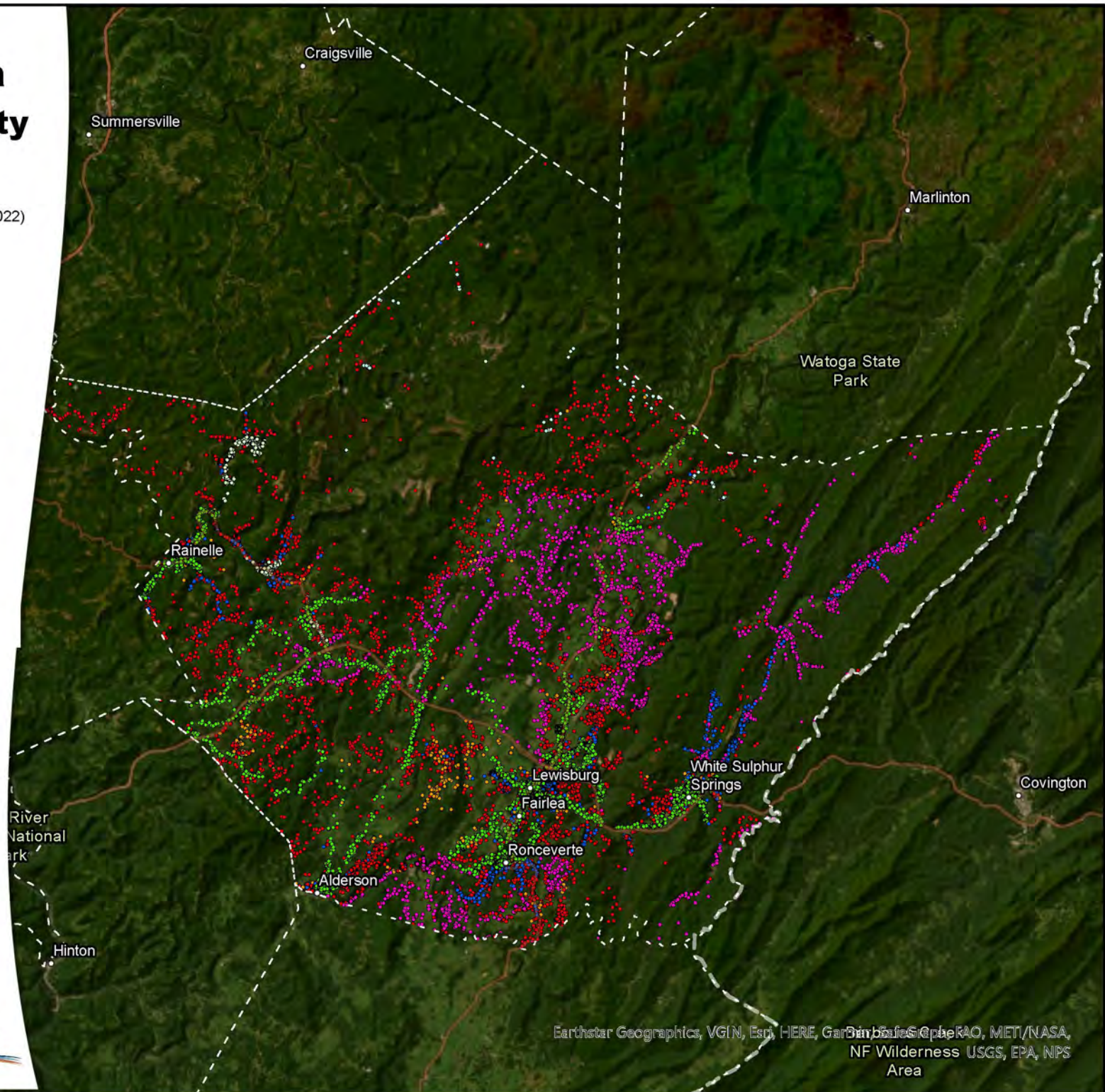
West Virginia Greenbrier County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: CAFII
- Community Development Block Grant



0 5 10 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, Bing, Google, NOAA, MET/NASA, USGS, EPA, NPS, NF Wilderness Area

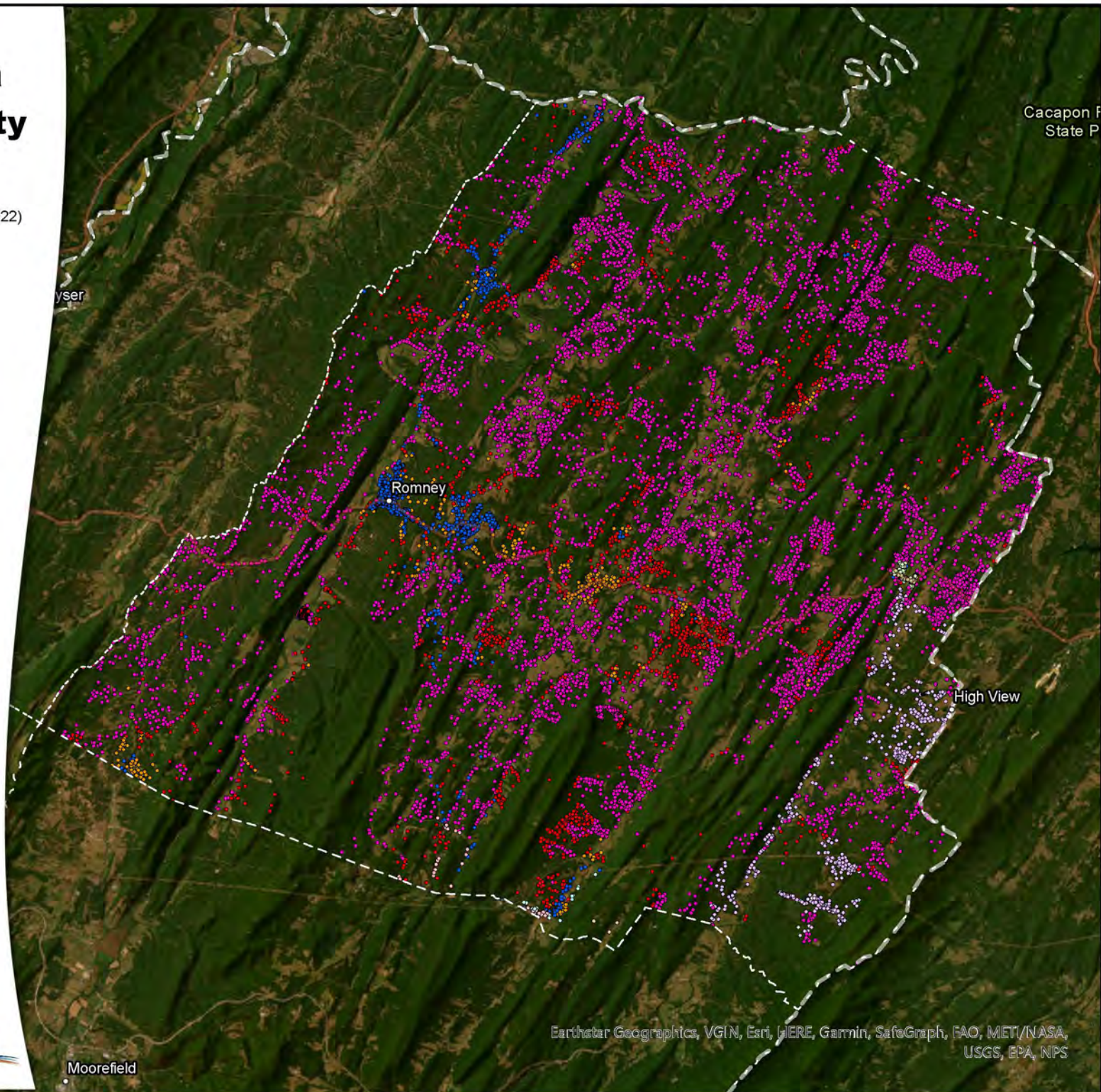
West Virginia Hampshire County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM
- FCC: CAFII
- USDA Community Connect
- Community Development Block Grant



0 3.25 6.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

West Virginia Hancock County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

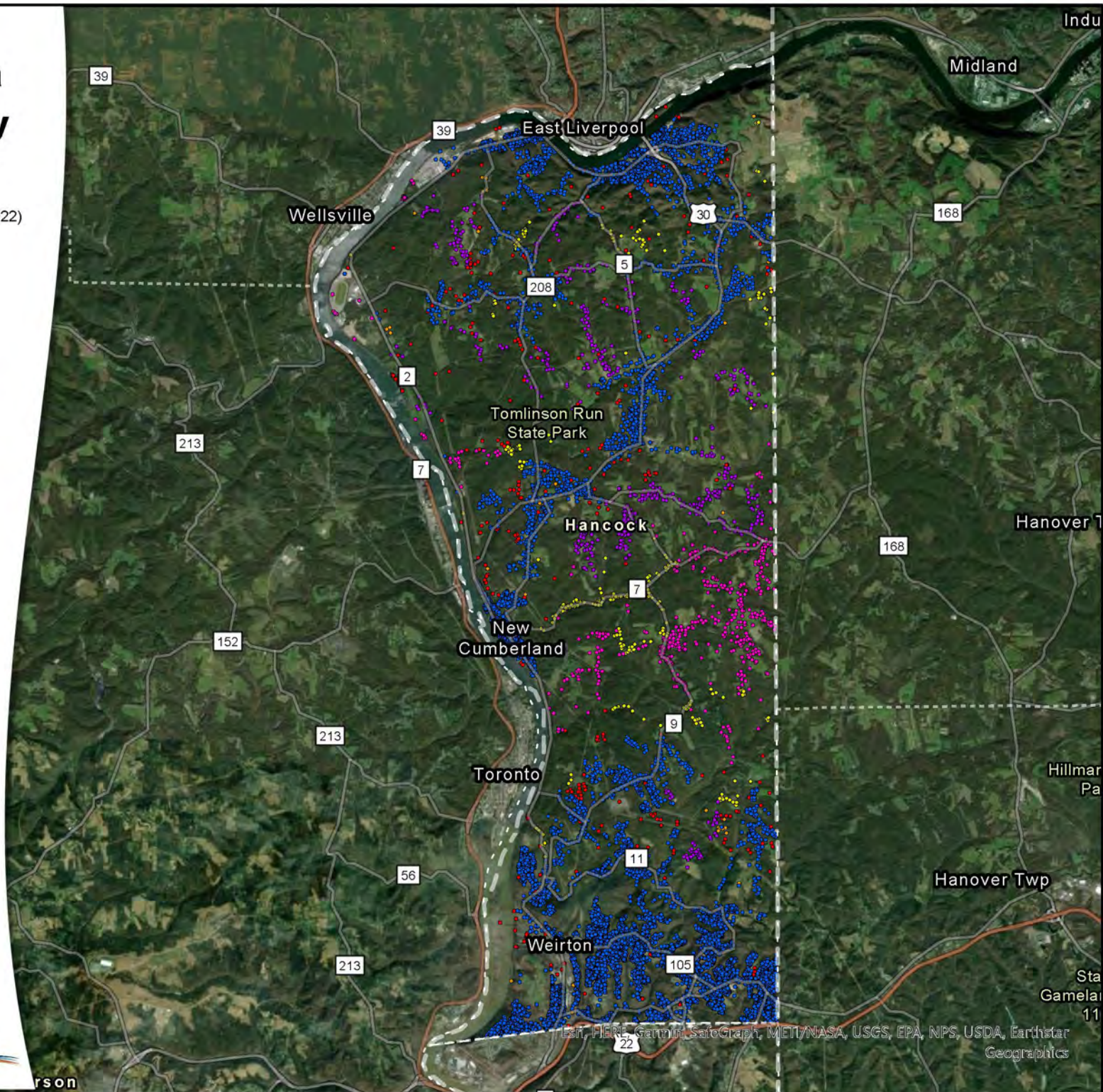
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF



0 1.5 3 Miles



WEST VIRGINIA
BROADBAND
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West Virginia Hardy County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

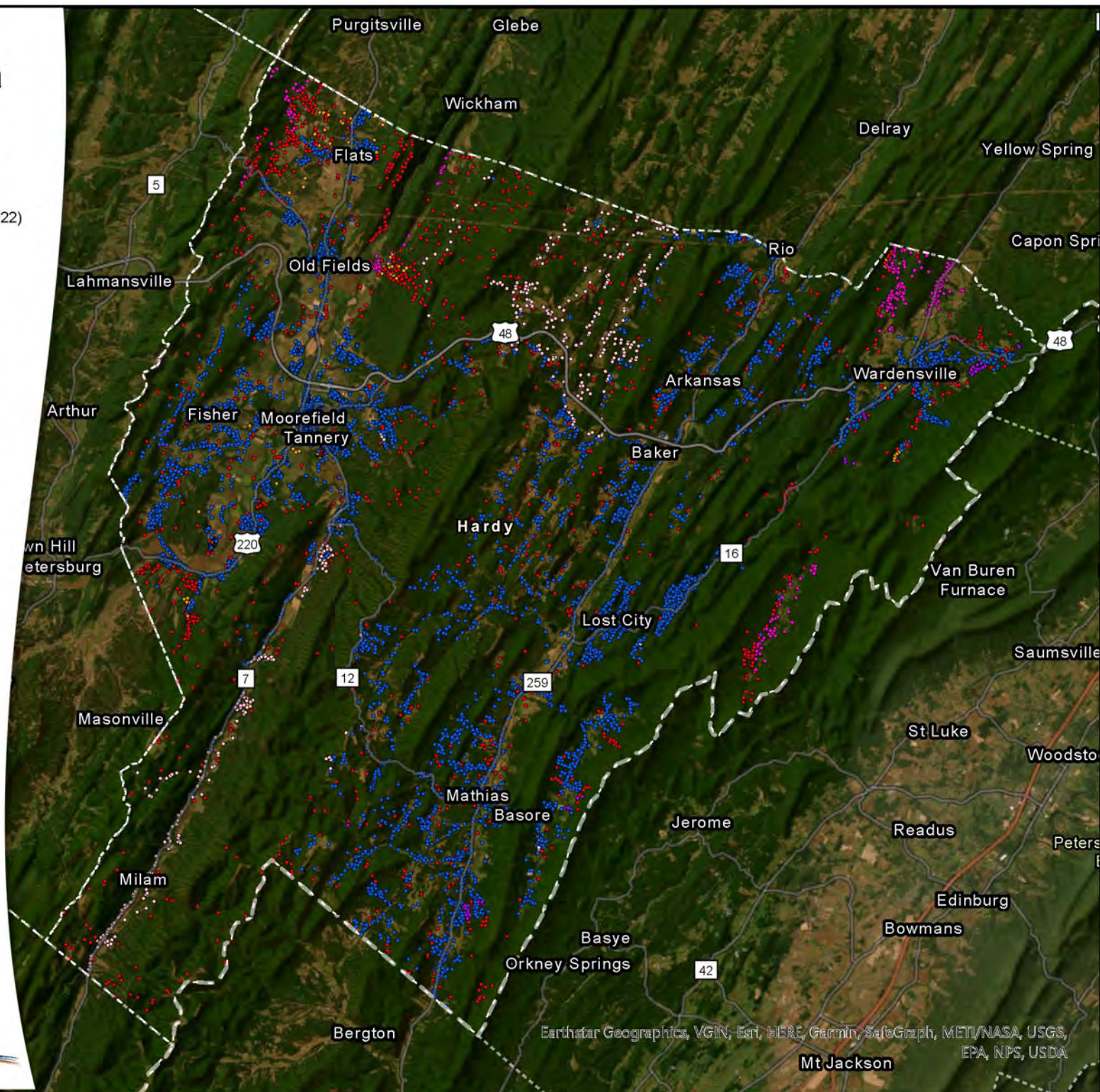
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF
- FCC: ACAM



0 3.25 6.5 Miles



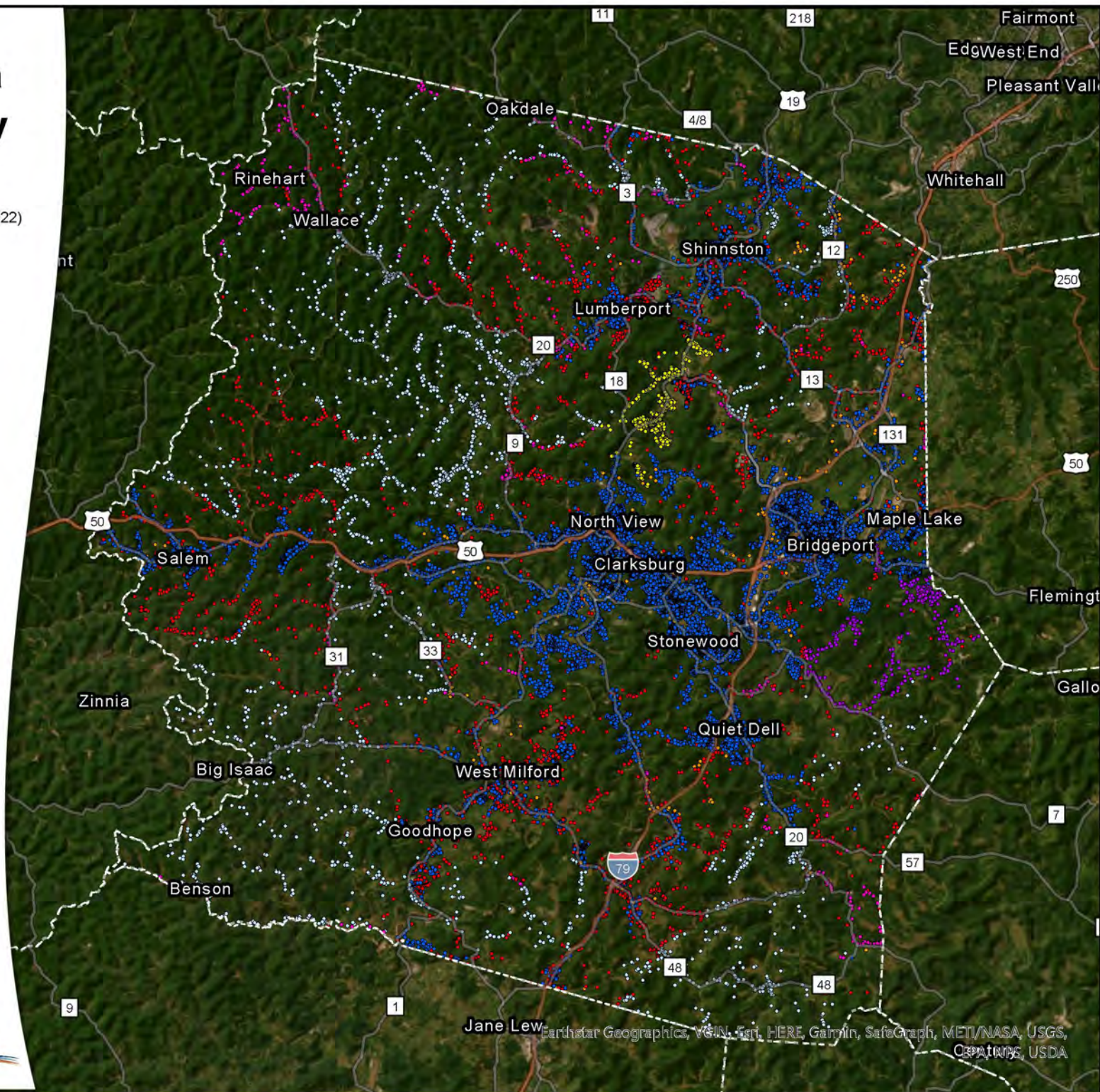
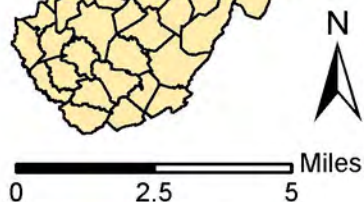
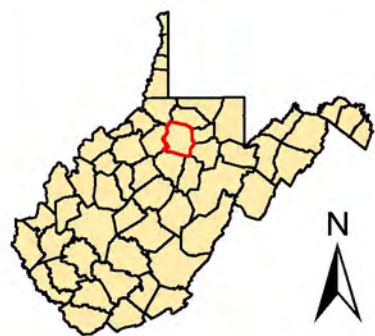
WEST VIRGINIA
BROADBAND
ENHANCEMENT COUNCIL



West Virginia Harrison County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF
- USDA ReConnect



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, OpenStreetMap, USDA

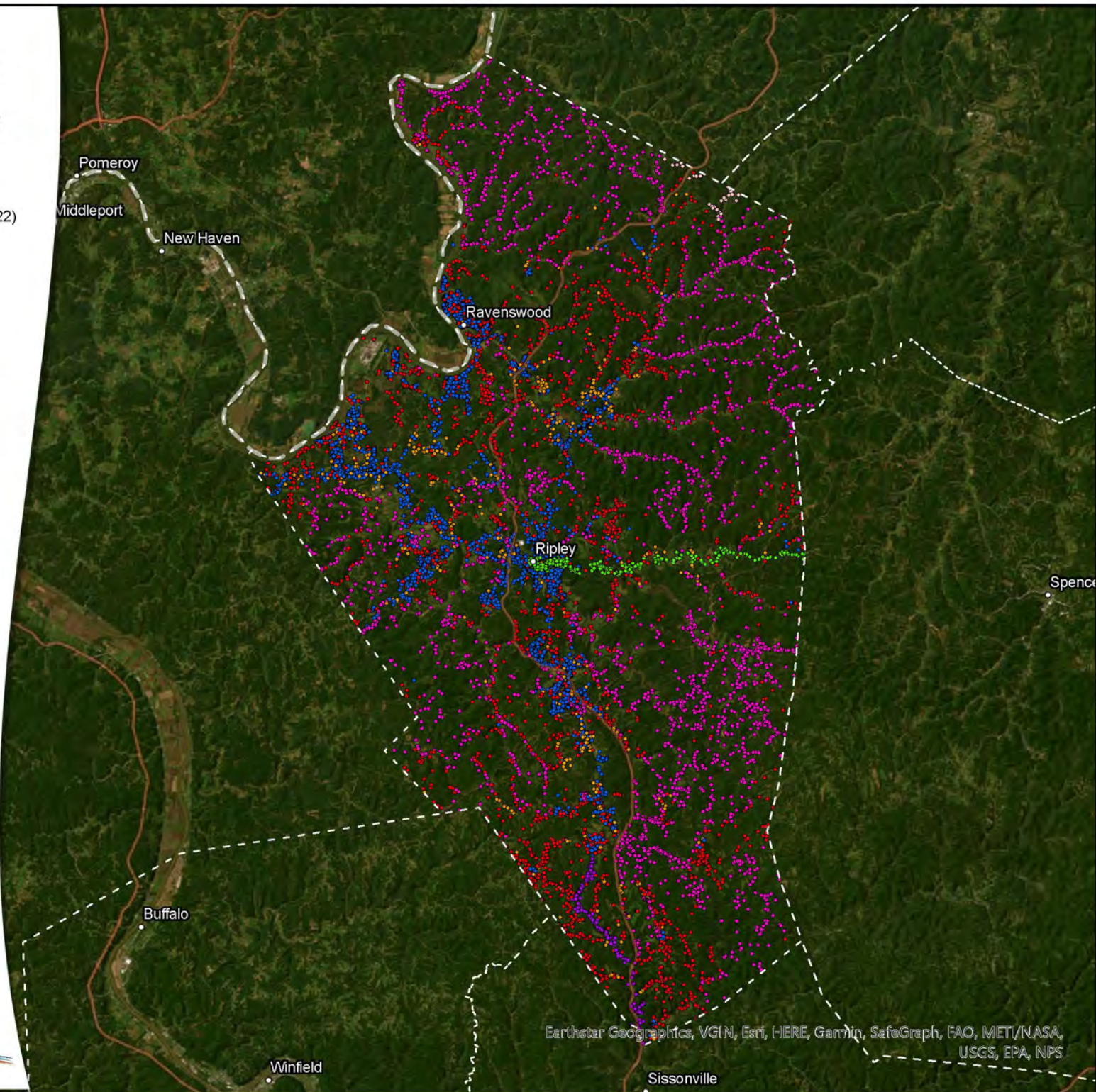
West Virginia Jackson County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: GigReady
- FCC: RDOF
- FCC: ACAM



0 3.75 7.5 Miles

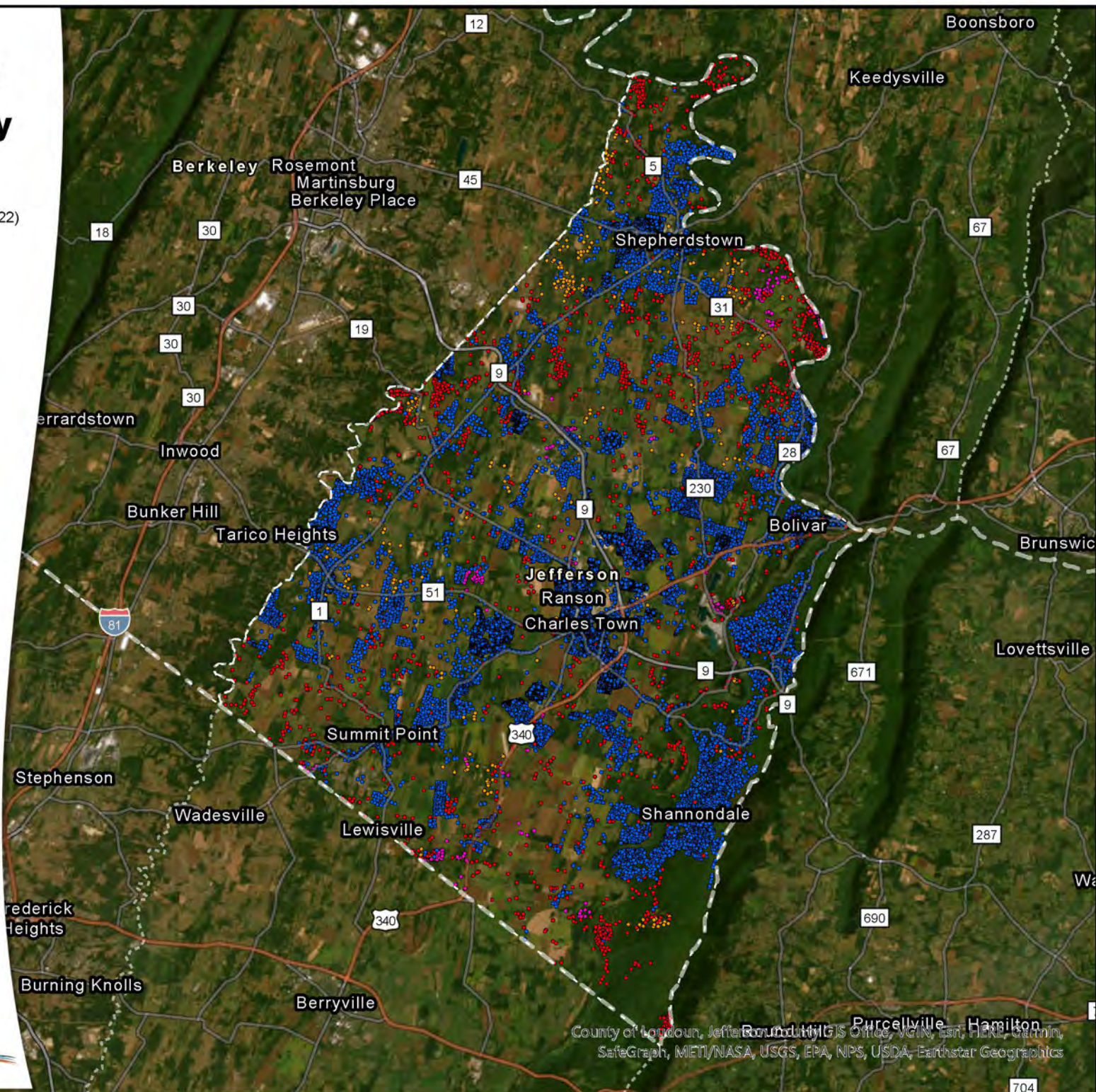
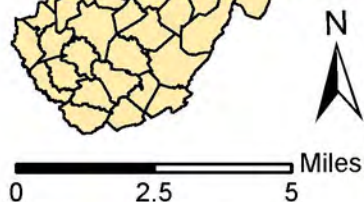


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

West Virginia Jefferson County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF

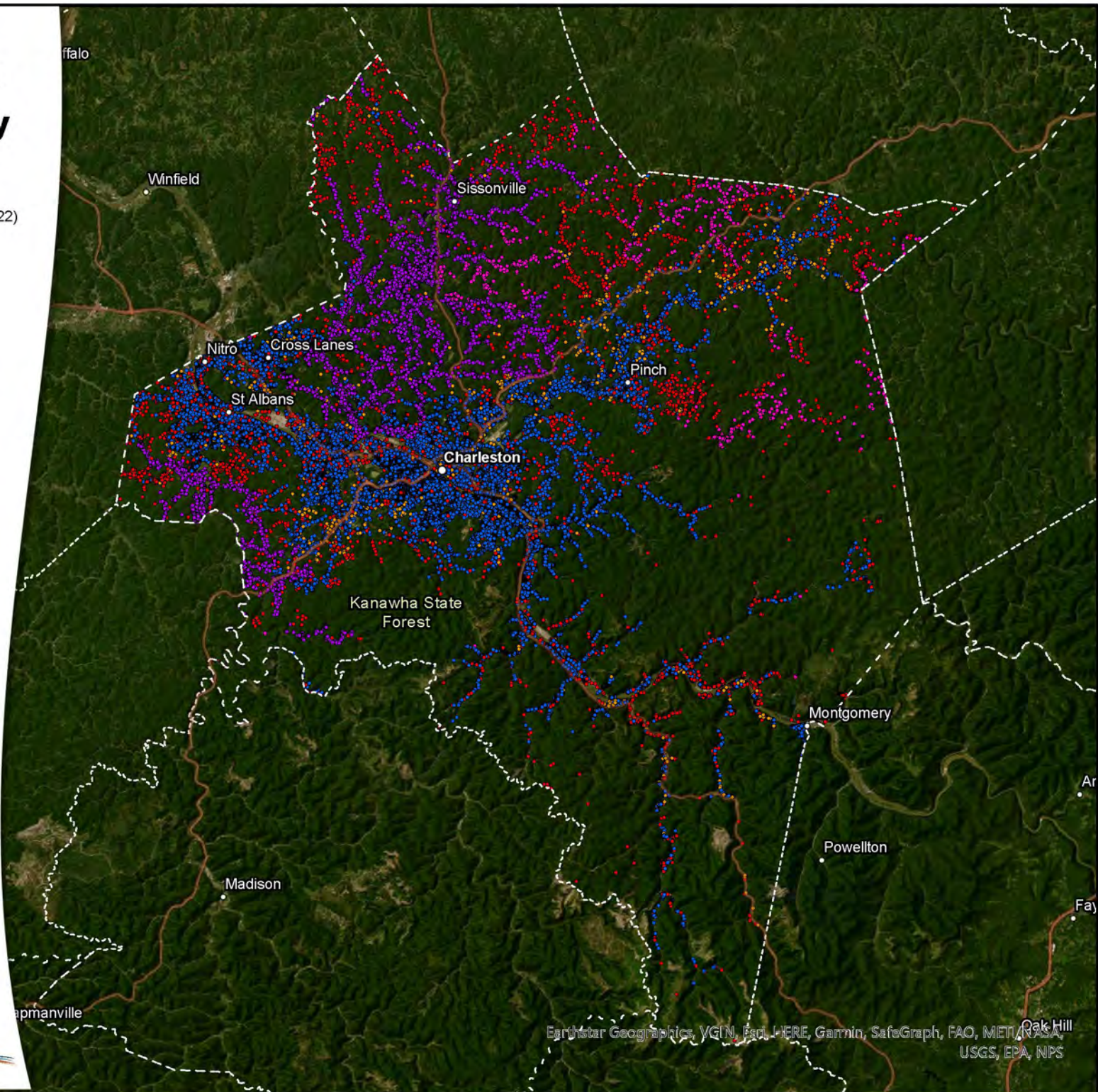
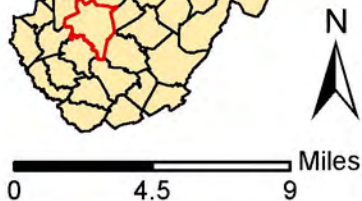


County of Loudoun, Jefferson County GIS Office, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Earthstar Geographics

West Virginia Kanawha County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI, NASA, USGS, EPA, NPS

West Virginia

Lewis County

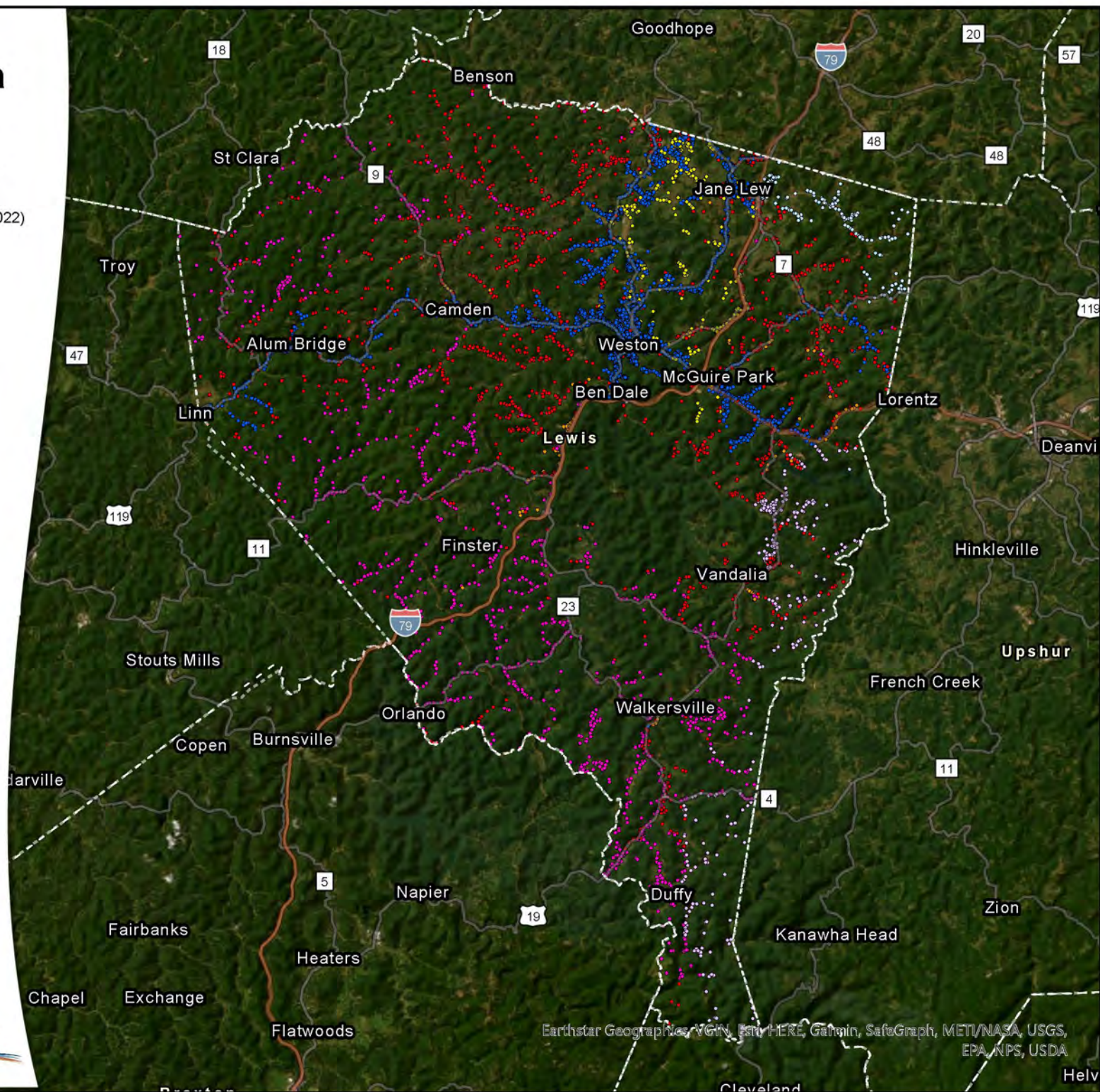
BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: MBPS
- FCC: RDOF
- USDA ReConnect
- USDA Community Connect



0 3 6 Miles

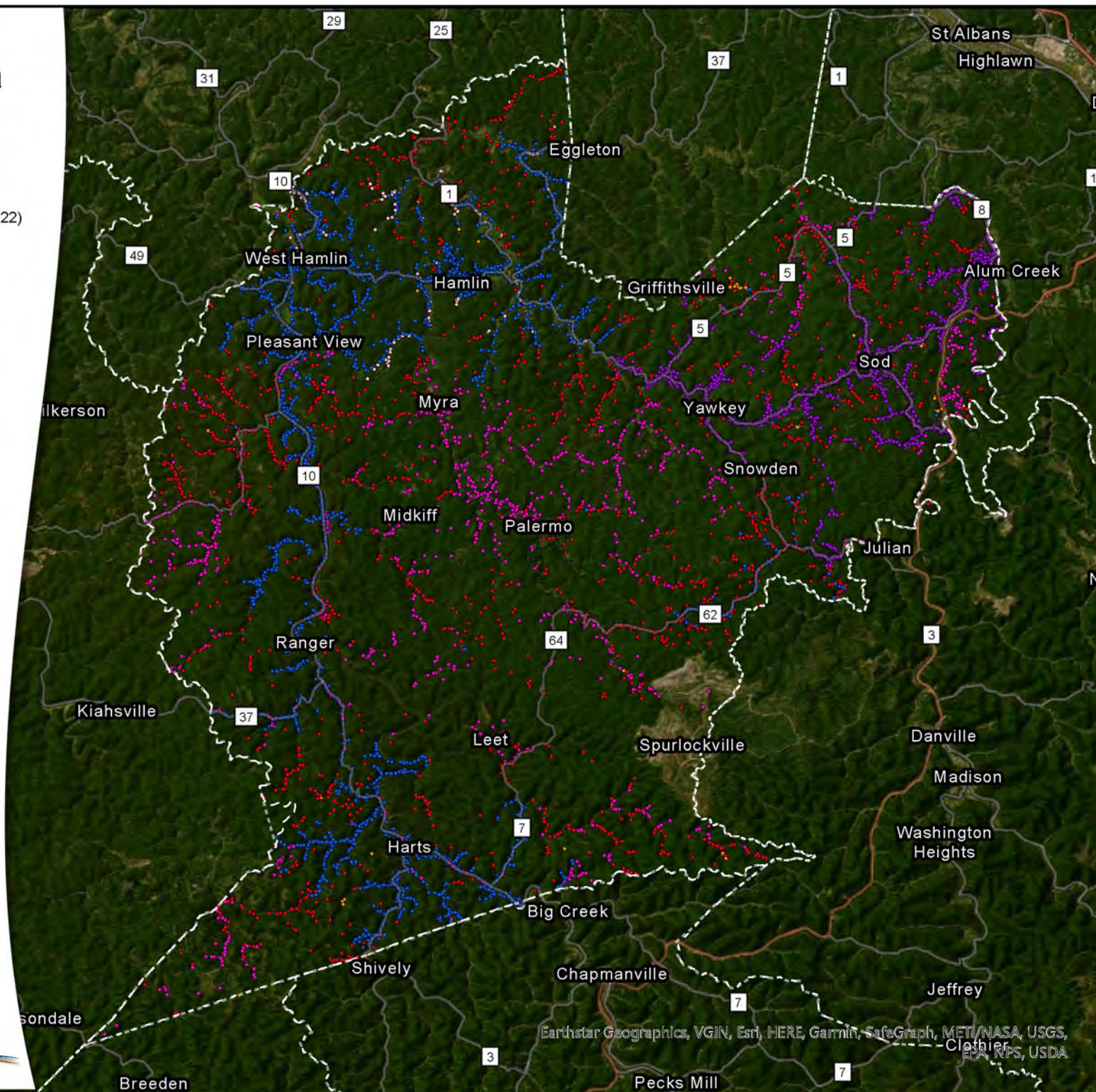
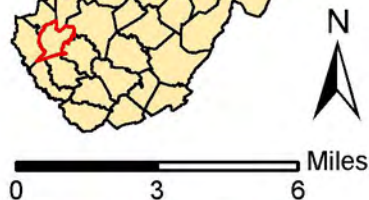


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Lincoln County BEAD Locations



(BDC Fabric Locations as December 31, 2022)

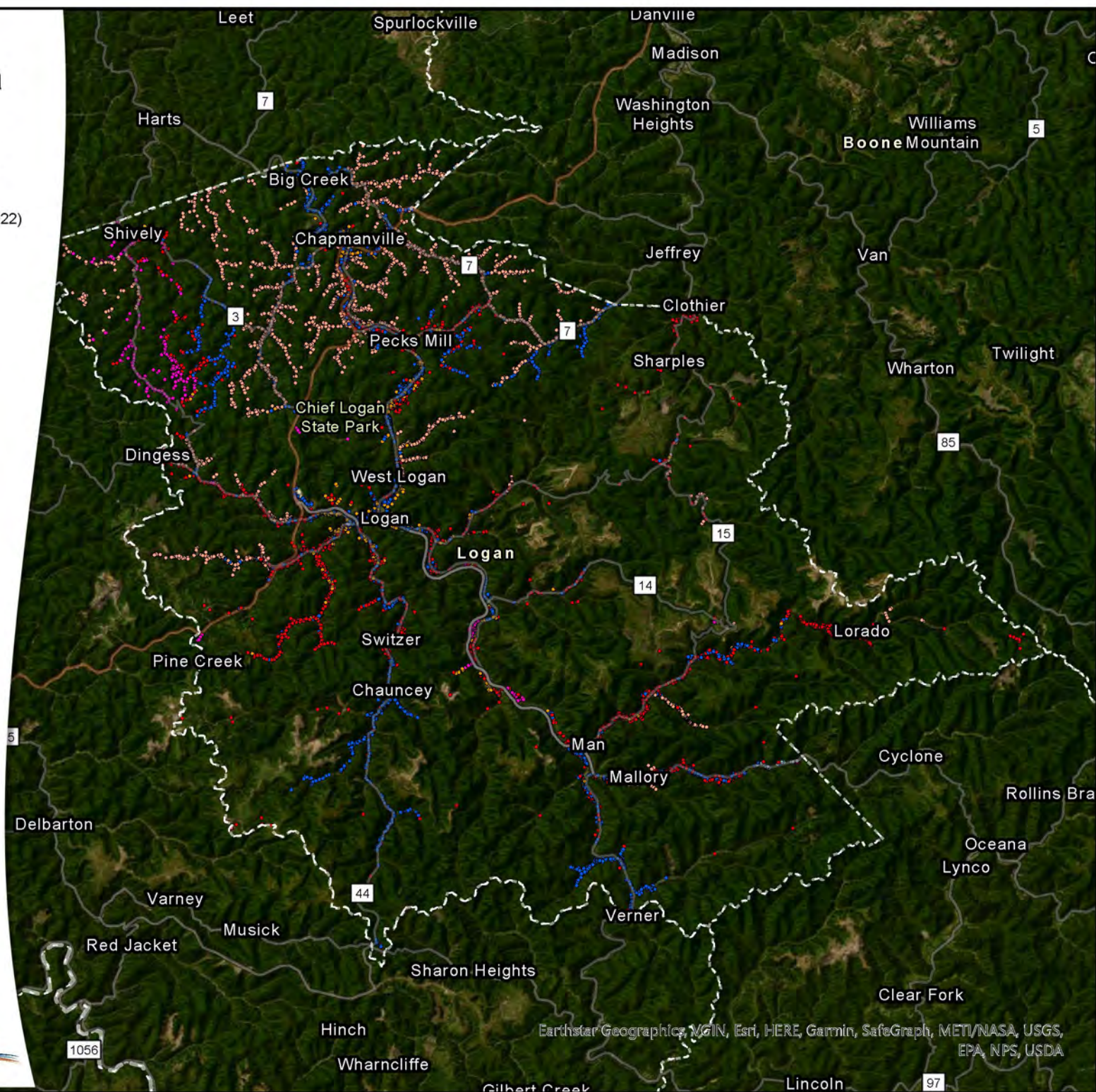
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF
- FCC: ACAM



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

(BDC Fabric Locations as December 31, 2022)

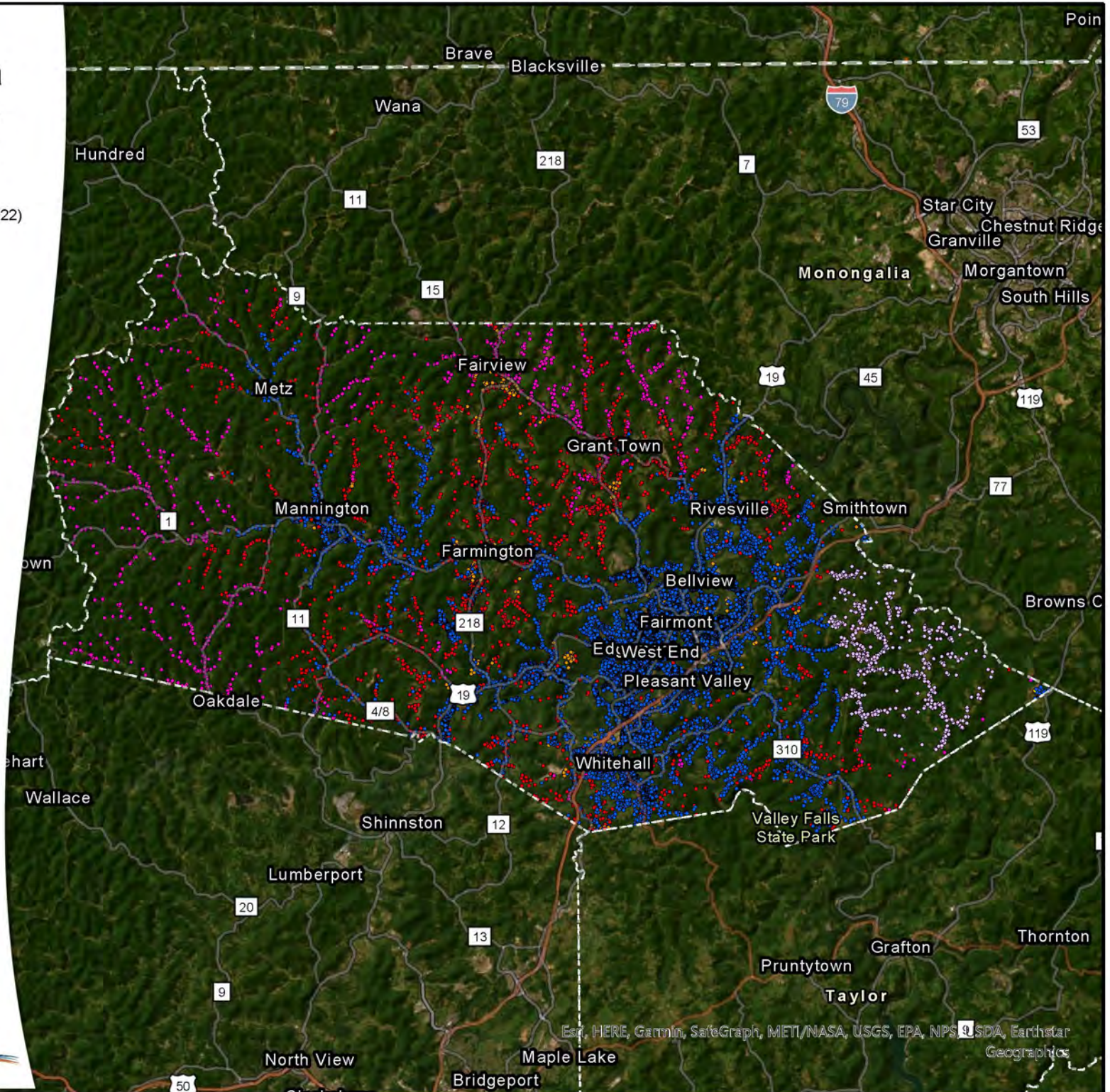
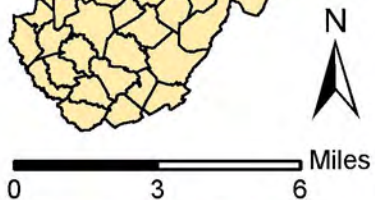
-  BEAD: Unserved
-  BEAD: Underserved
-  BEAD: Served
-  FCC: RDOF
-  NTIA BIP: Logan-Mingo
-  Appalachian Regional Commission



West Virginia Marion County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: MBPS
- FCC: RDOF
- USDA Community Connect

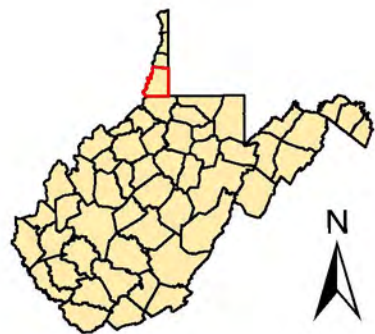


Map data: HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Earthstar Geographics

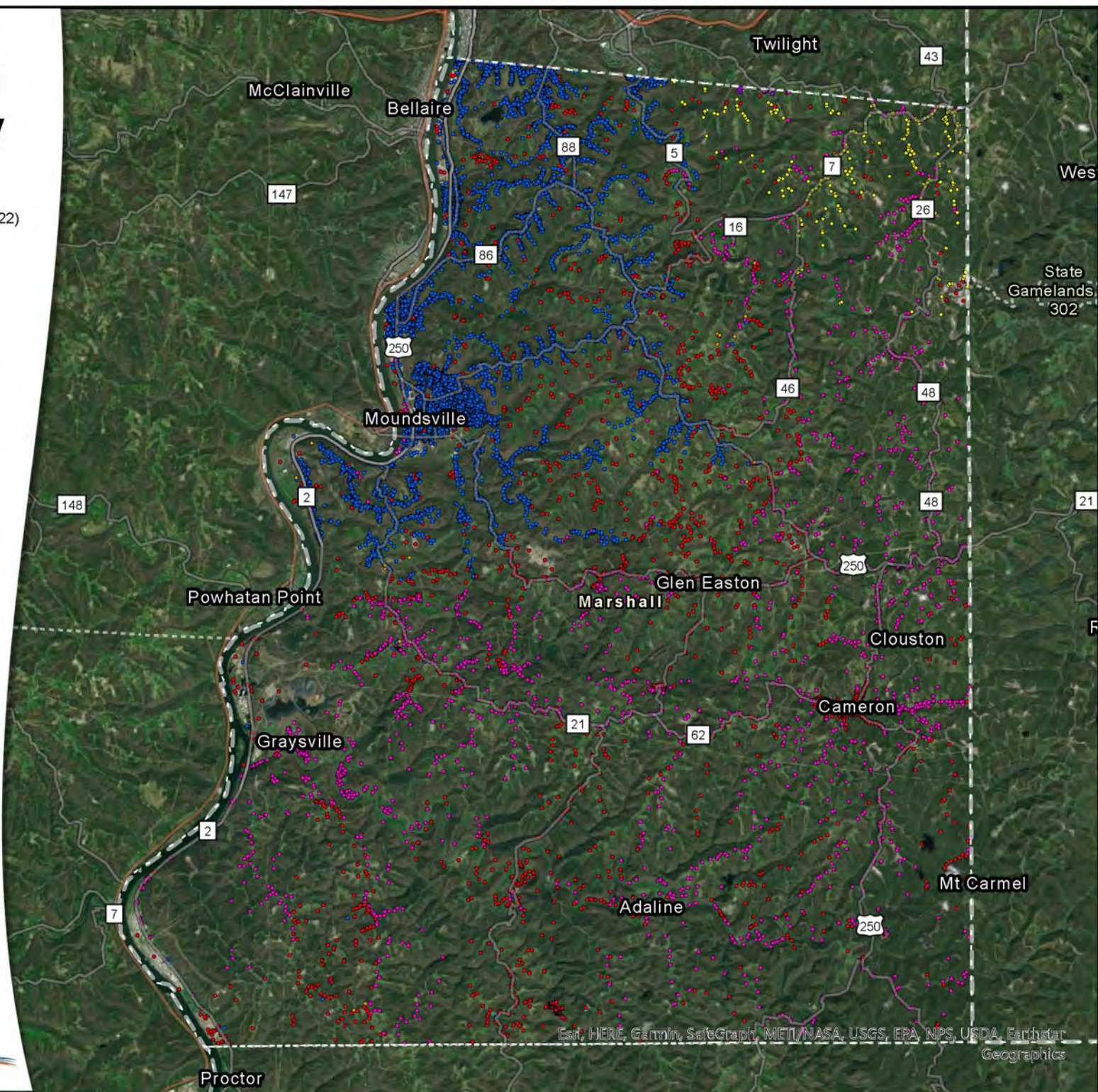
West Virginia Marshall County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF



0 2 4 Miles

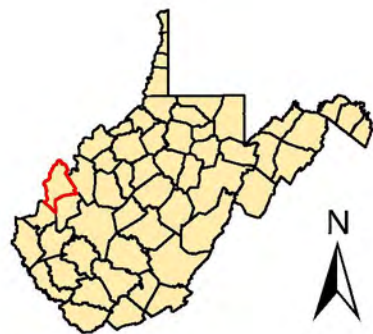


Esri, HERE, Garmin, SafeGraph, MITL, NASA, USGS, EPA, NPS, USDA, Earthstar Geographics

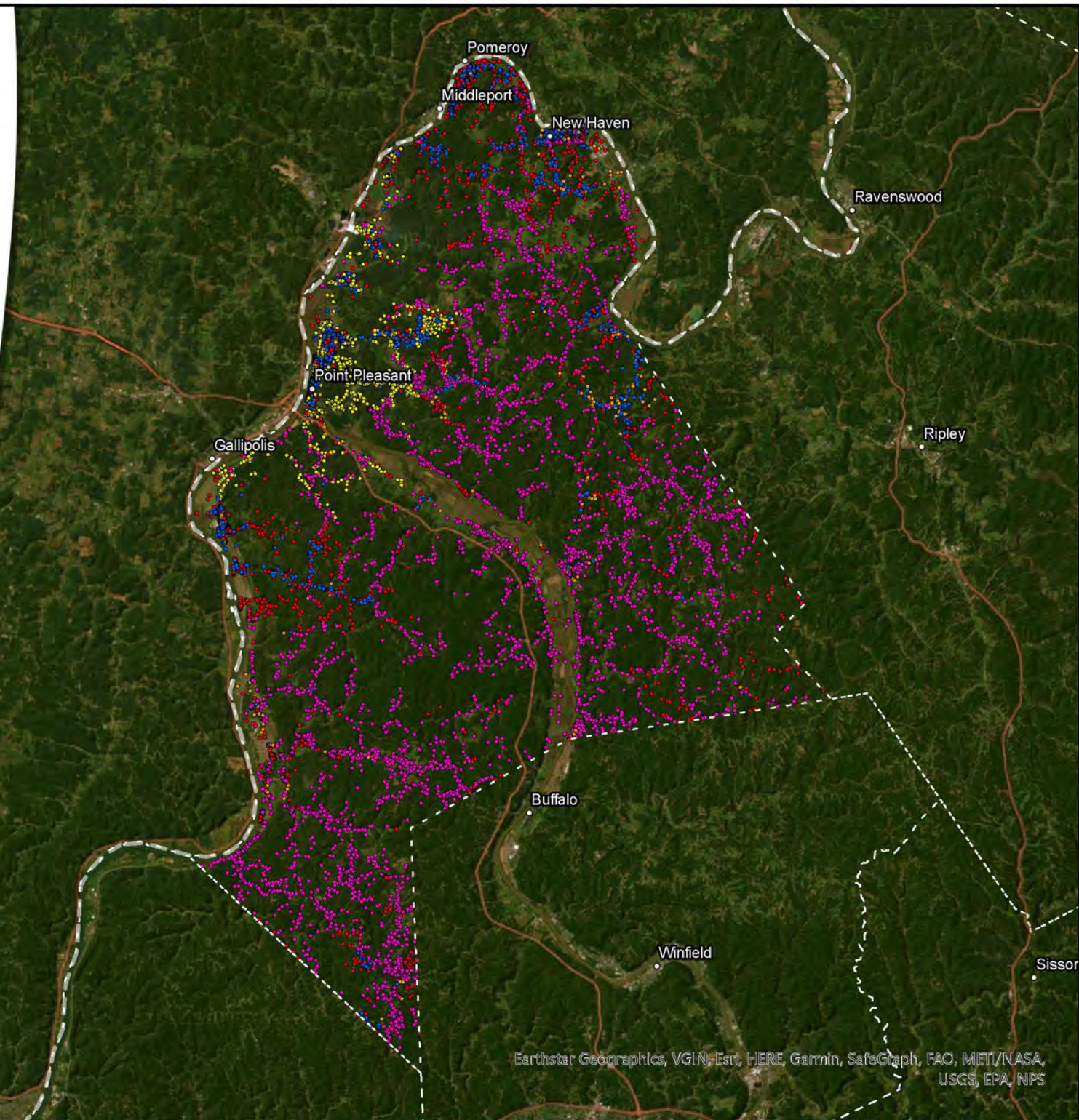
West Virginia Mason County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: MBPS
- FCC: RDOF



0 3.75 7.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

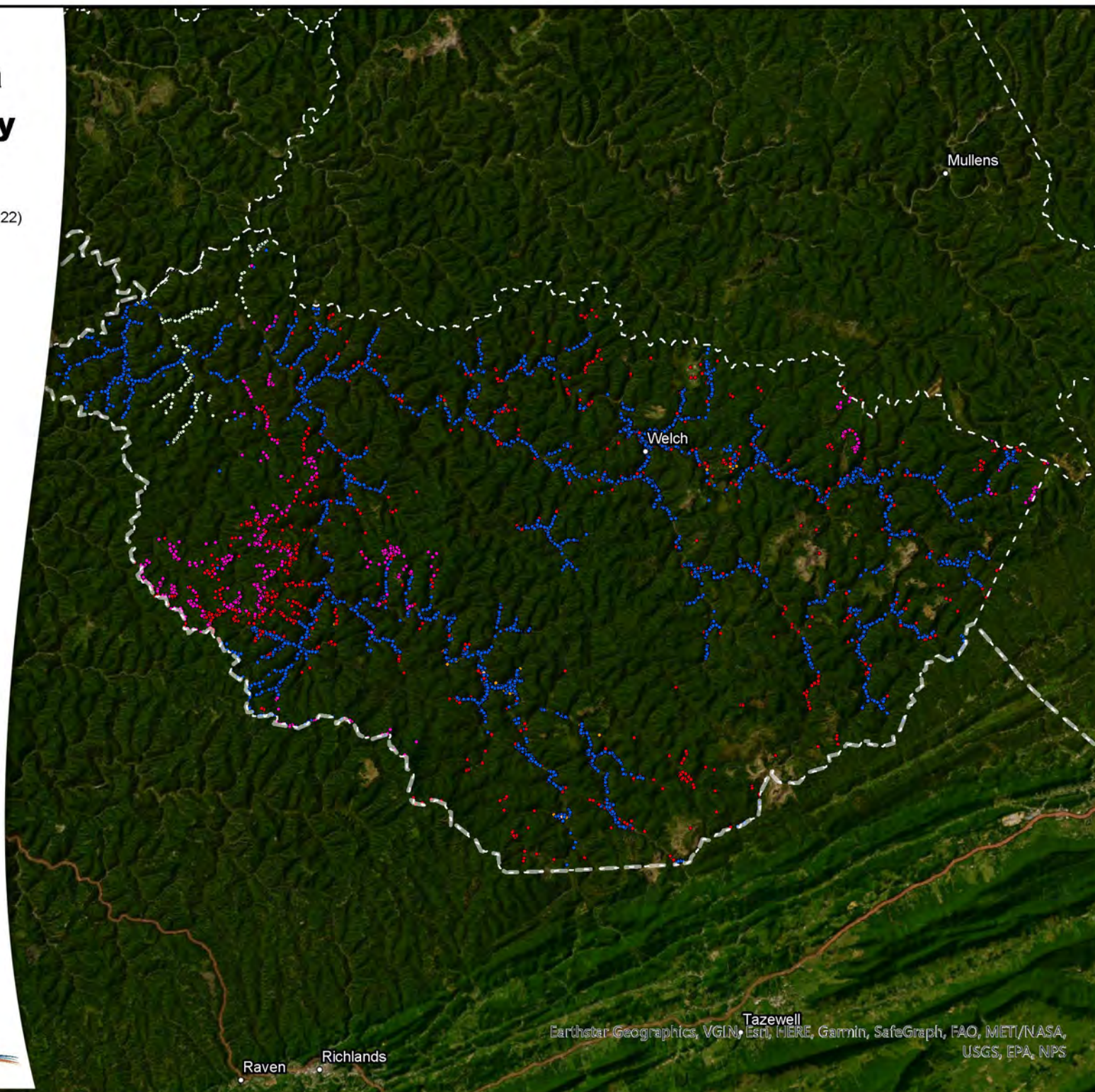
West Virginia Mcdowell County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM
- Community Development Block Grant



0 3.75 7.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

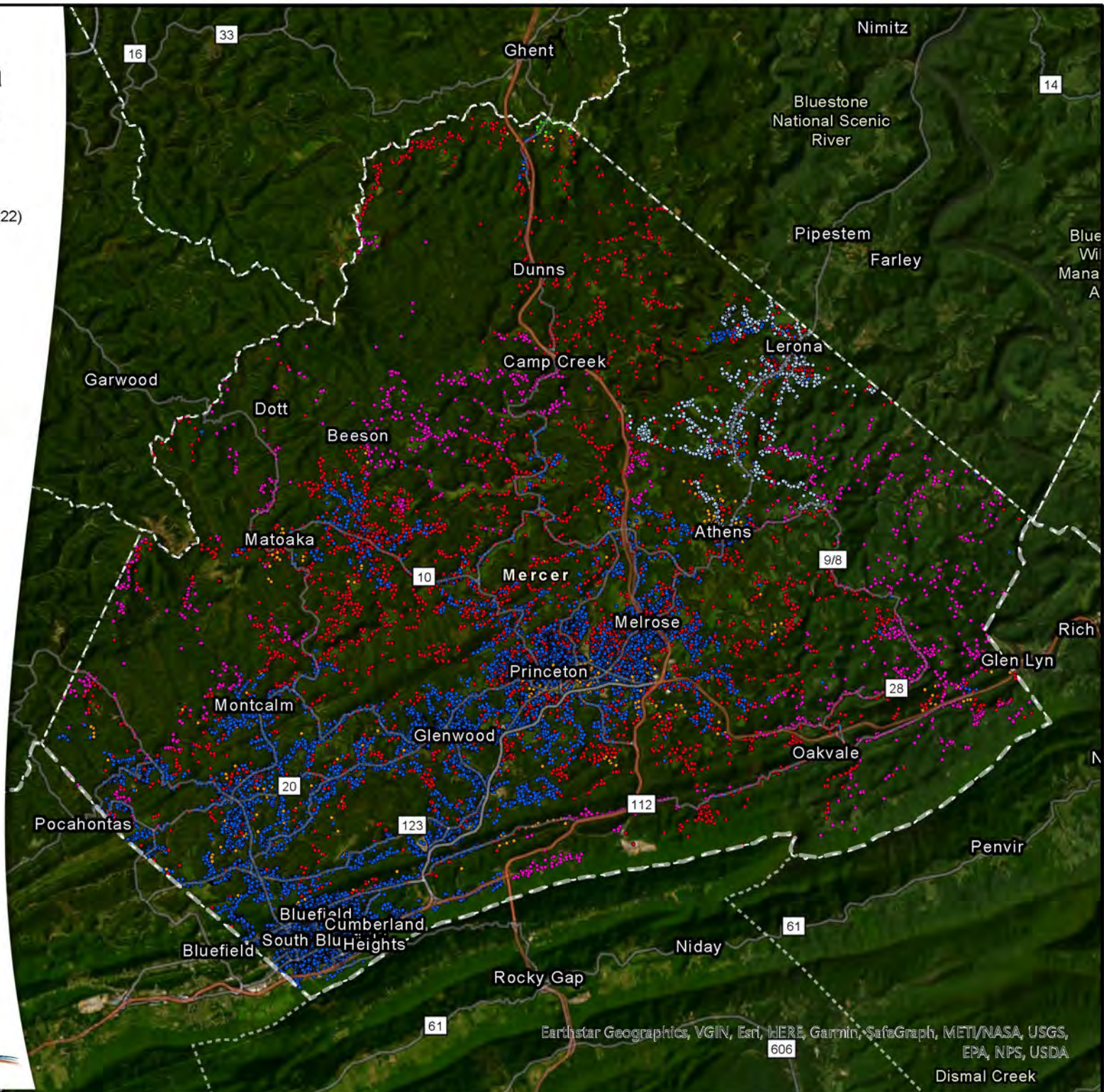
West Virginia Mercer County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- Appalachian Regional Commission



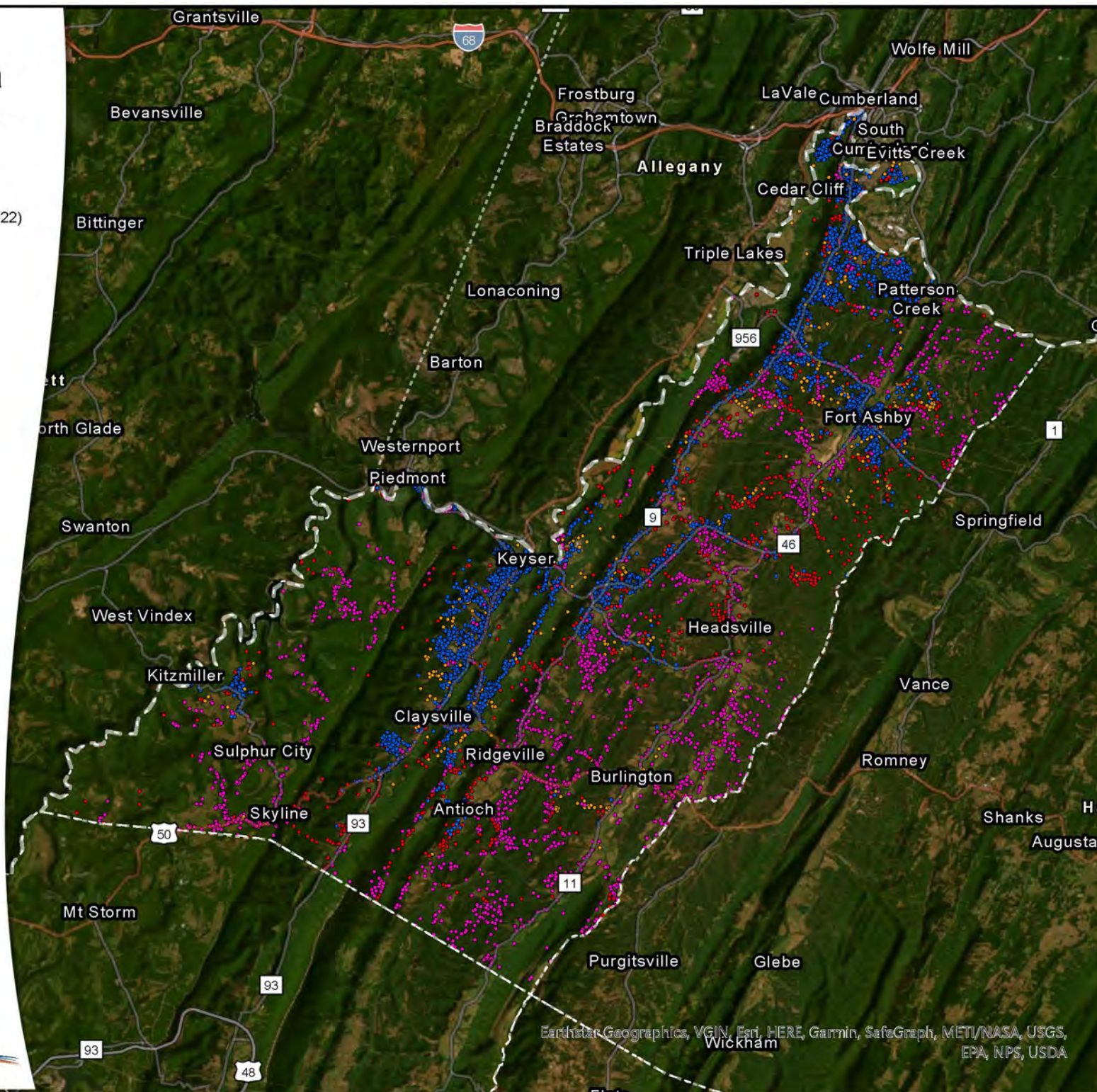
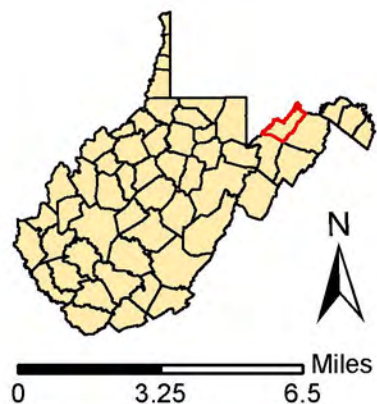
0 2.75 5.5 Miles



West Virginia Mineral County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia

Mingo County

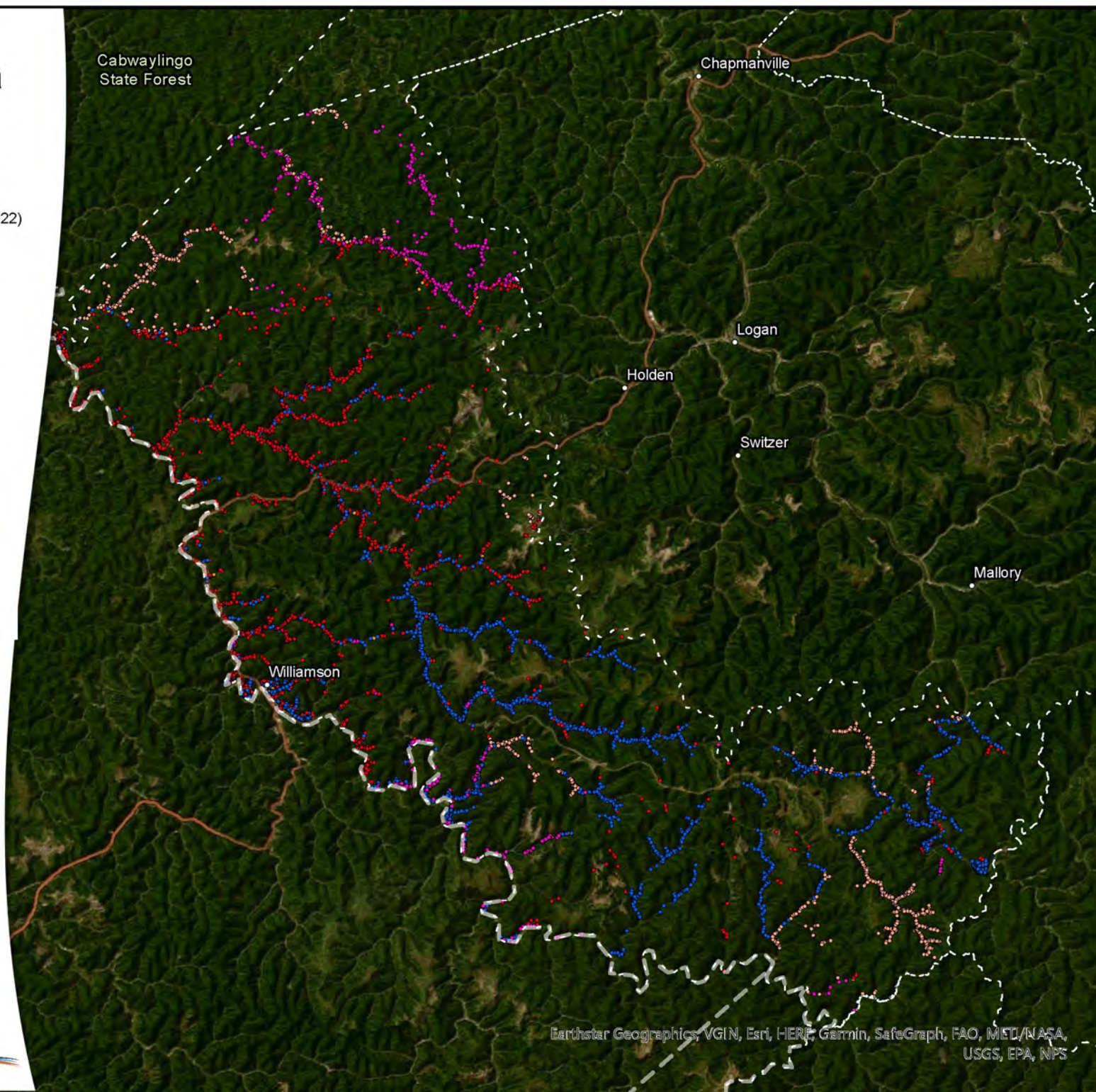
BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- NTIA BIP: Logan-Mingo
- Community
- Development Block Grant



0 3.25 6.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS

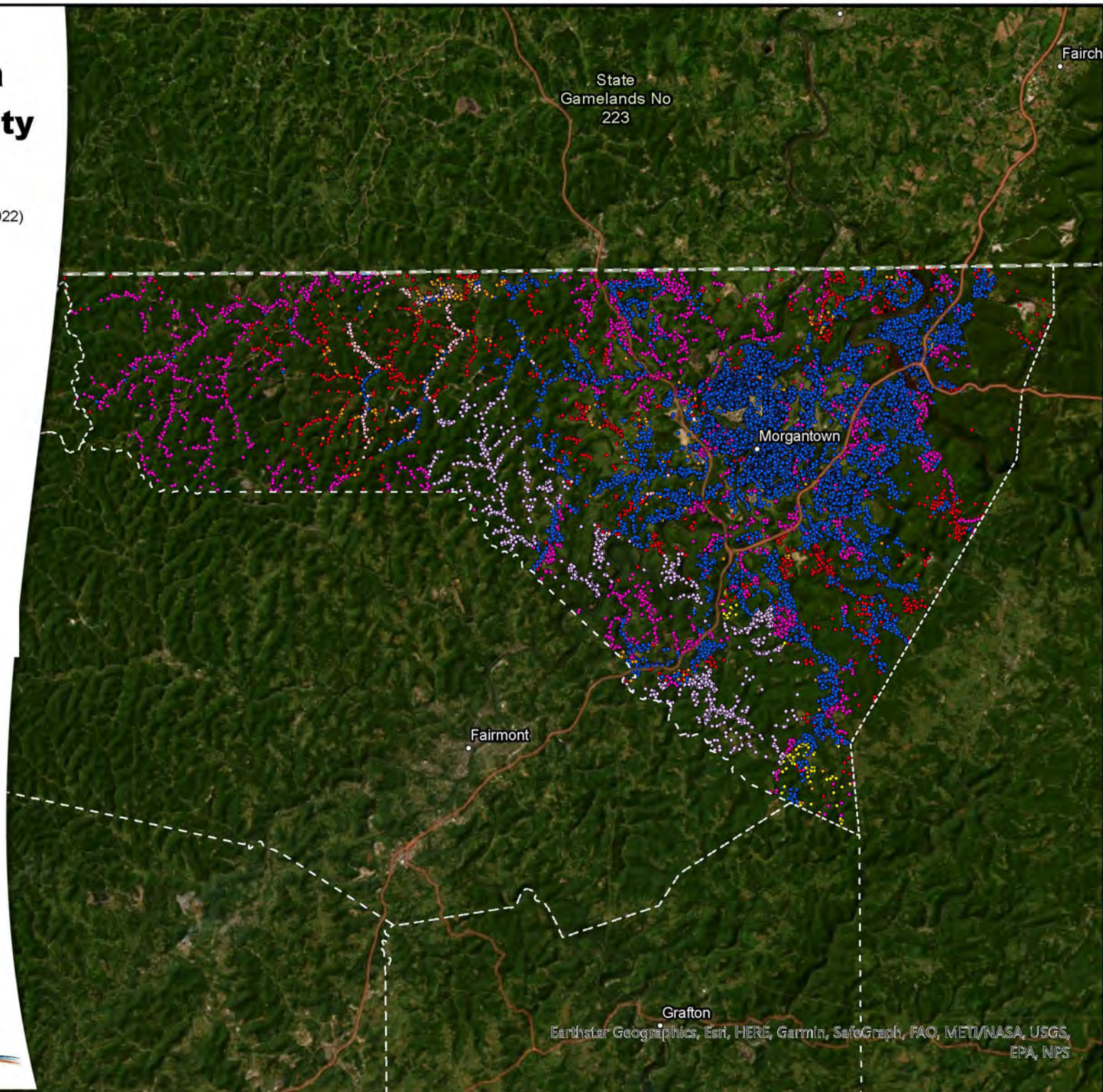
West Virginia Monongalia County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF
- FCC: ACAM
- USDA Community Connect



0 3.5 7 Miles

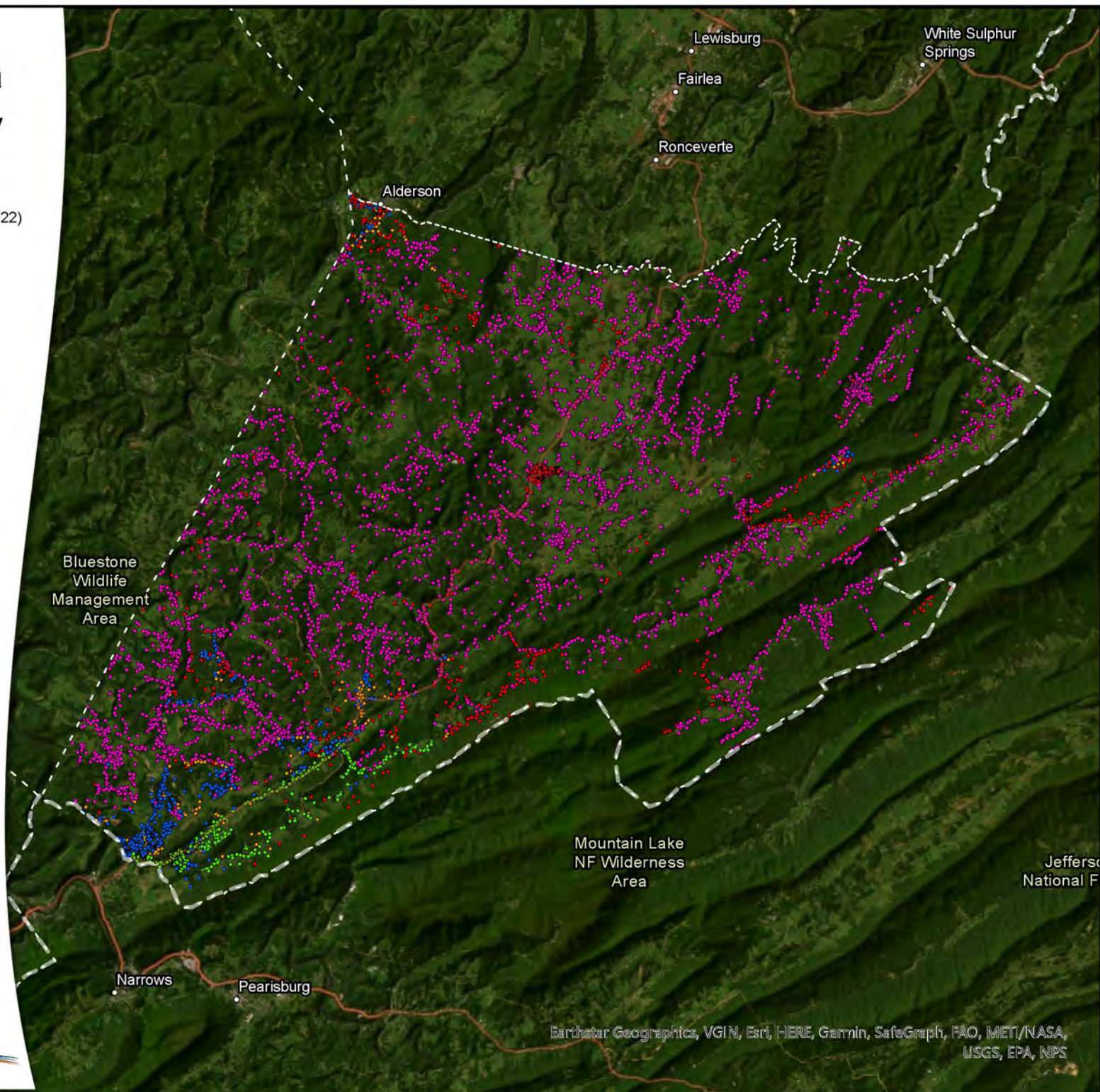
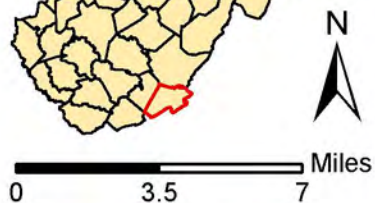


Grafton
Earthstar Geographics, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

West Virginia Monroe County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF

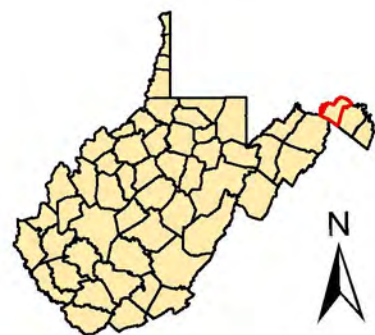


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

West Virginia Morgan County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

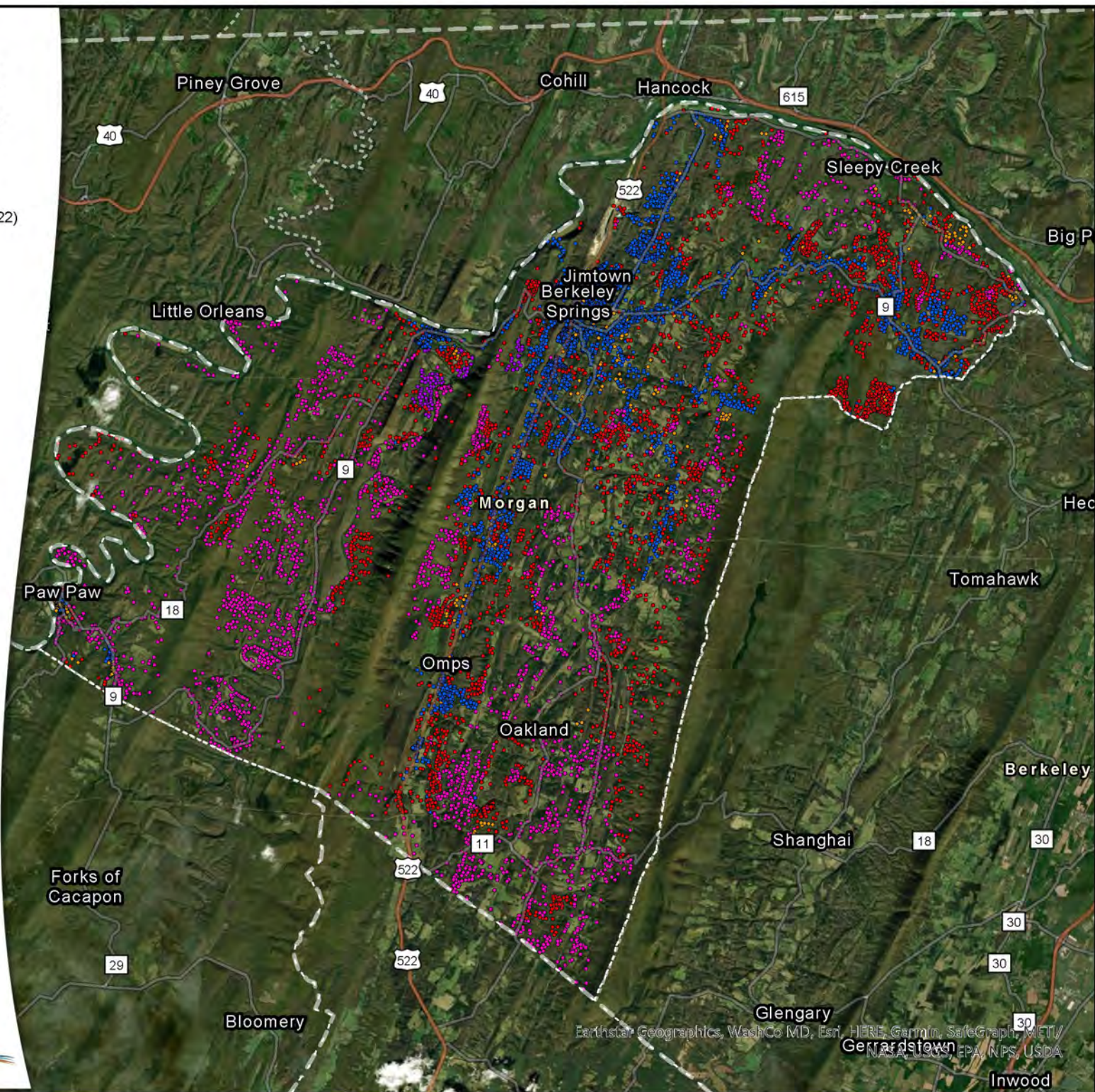
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF



0 2.25 4.5 Miles



WEST VIRGINIA
BROADBAND
ENHANCEMENT COUNCIL



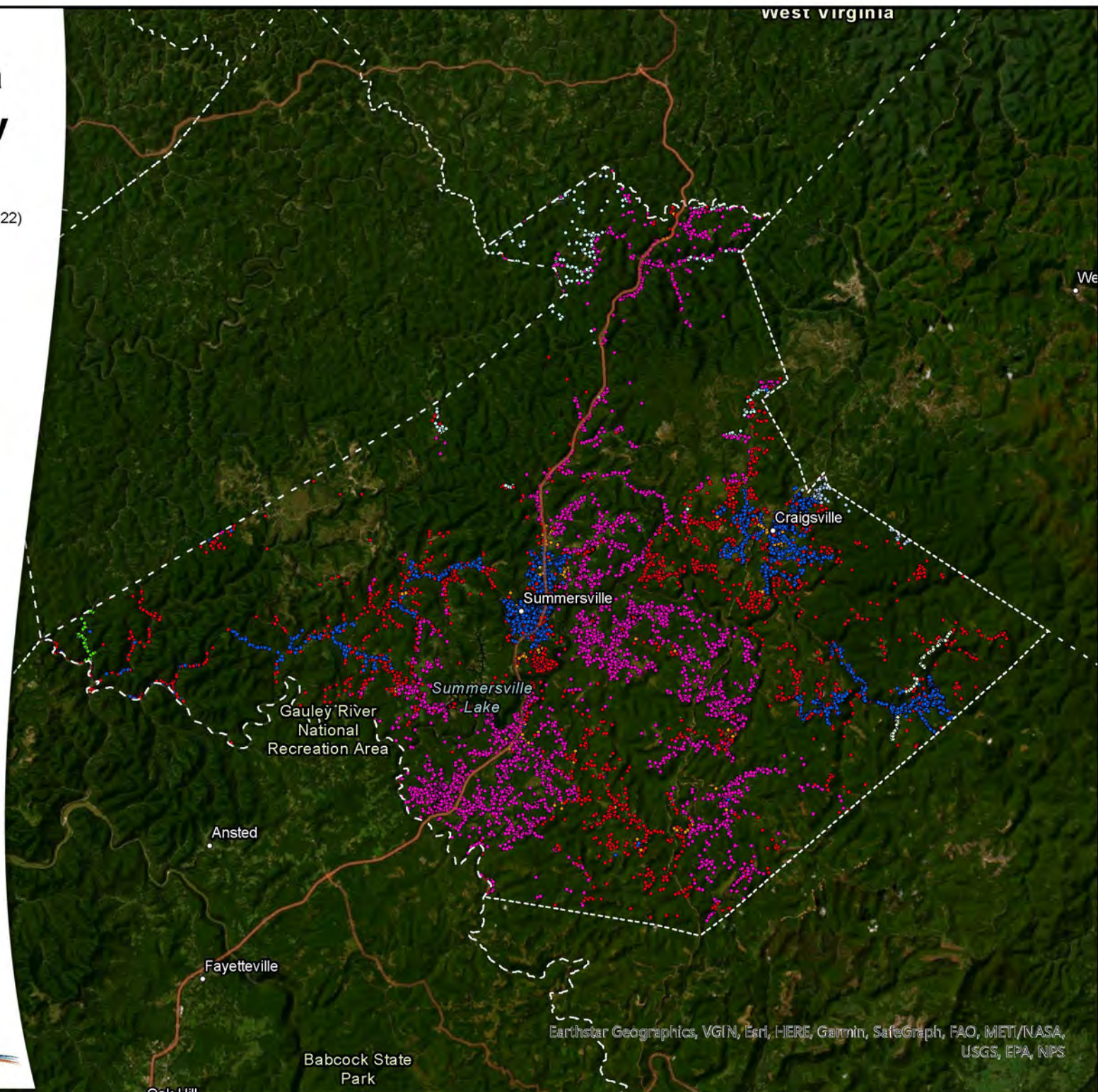
West Virginia Nicholas County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: CAFII
- Appalachian Regional Commission
- Community Development Block Grant



0 4.25 8.5 Miles

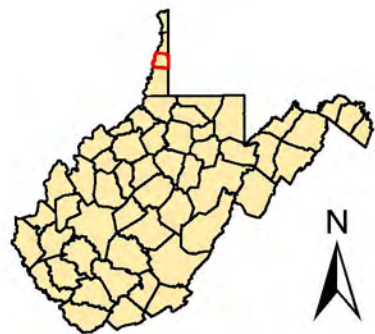


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, MET/NASA, USGS, EPA, NPS

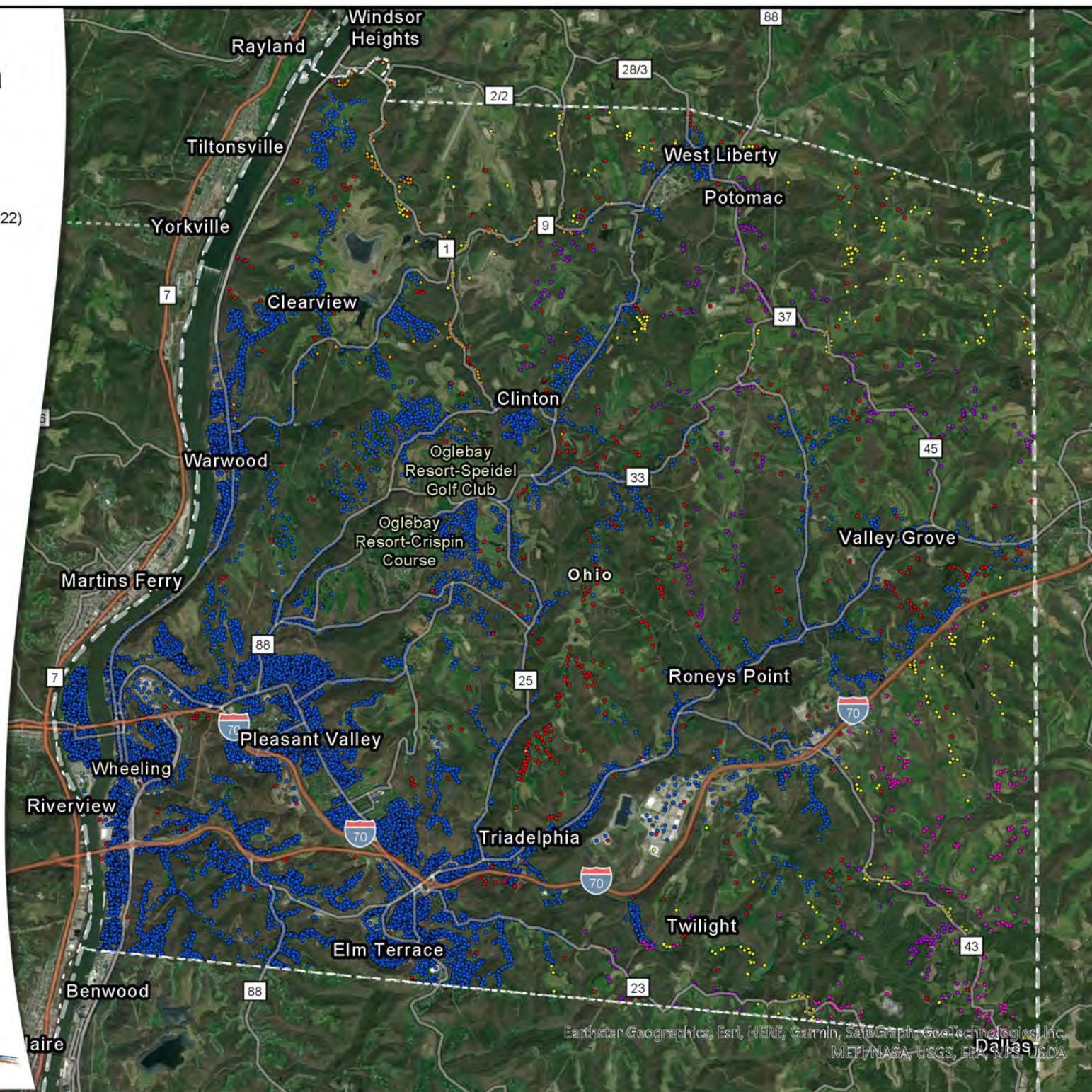
West Virginia Ohio County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF



0 1 2 Miles



Earthstar Geographics, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc.
METI/NASA, USGS, EPA, NPS, USDA

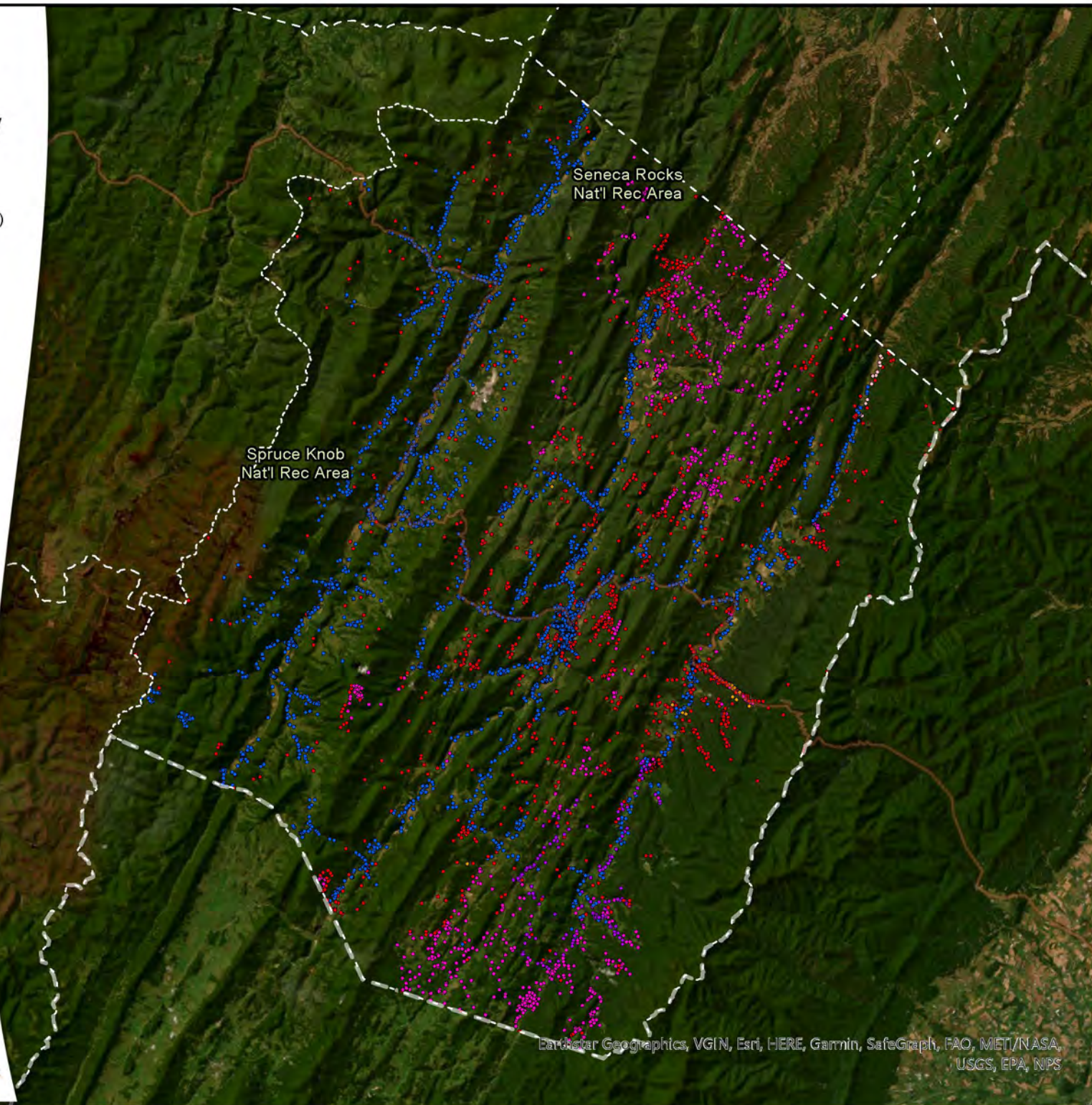
West Virginia Pendleton County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF
- FCC: ACAM



0 3.75 7.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

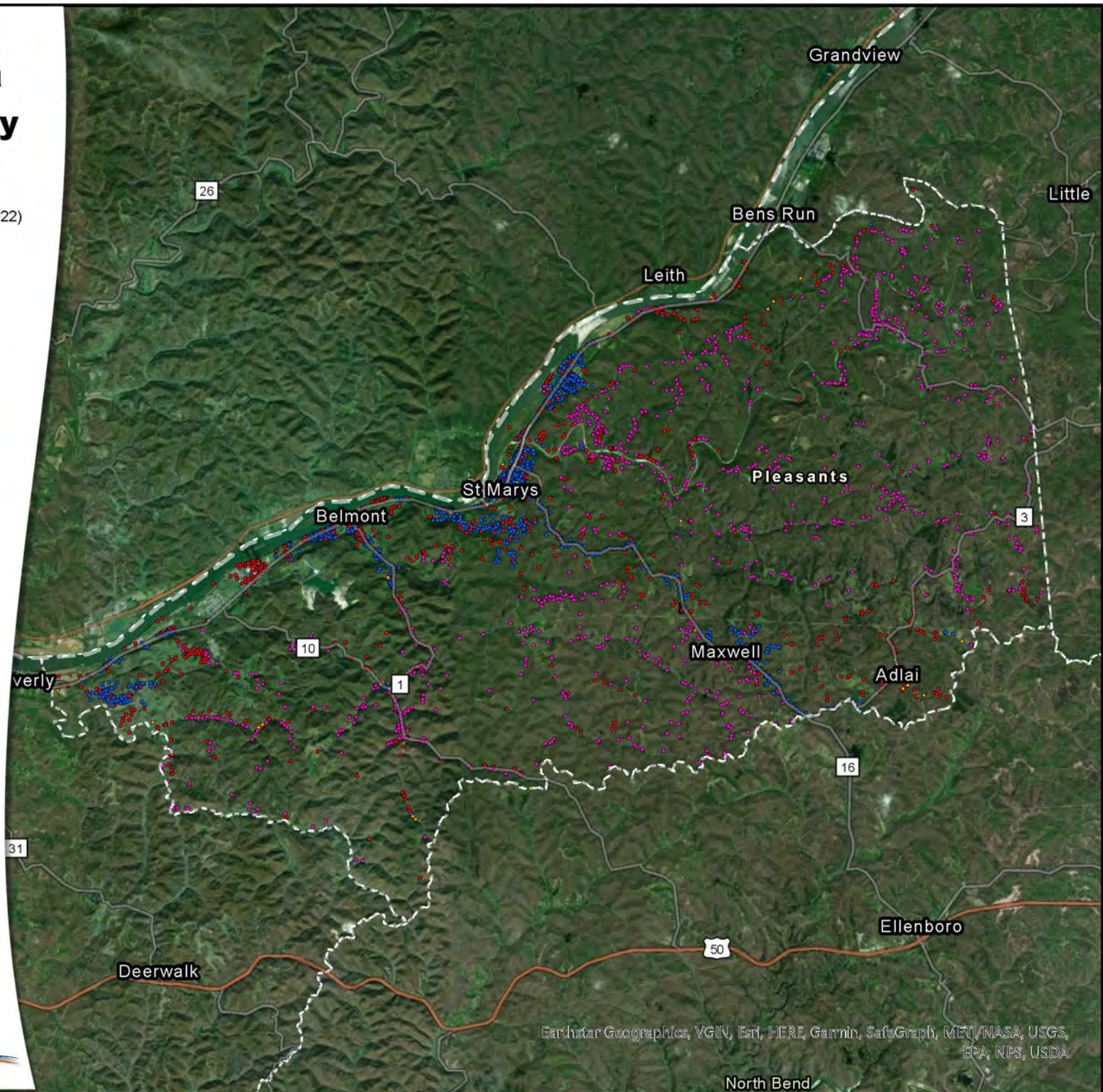
West Virginia Pleasants County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM



0 1.75 3.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

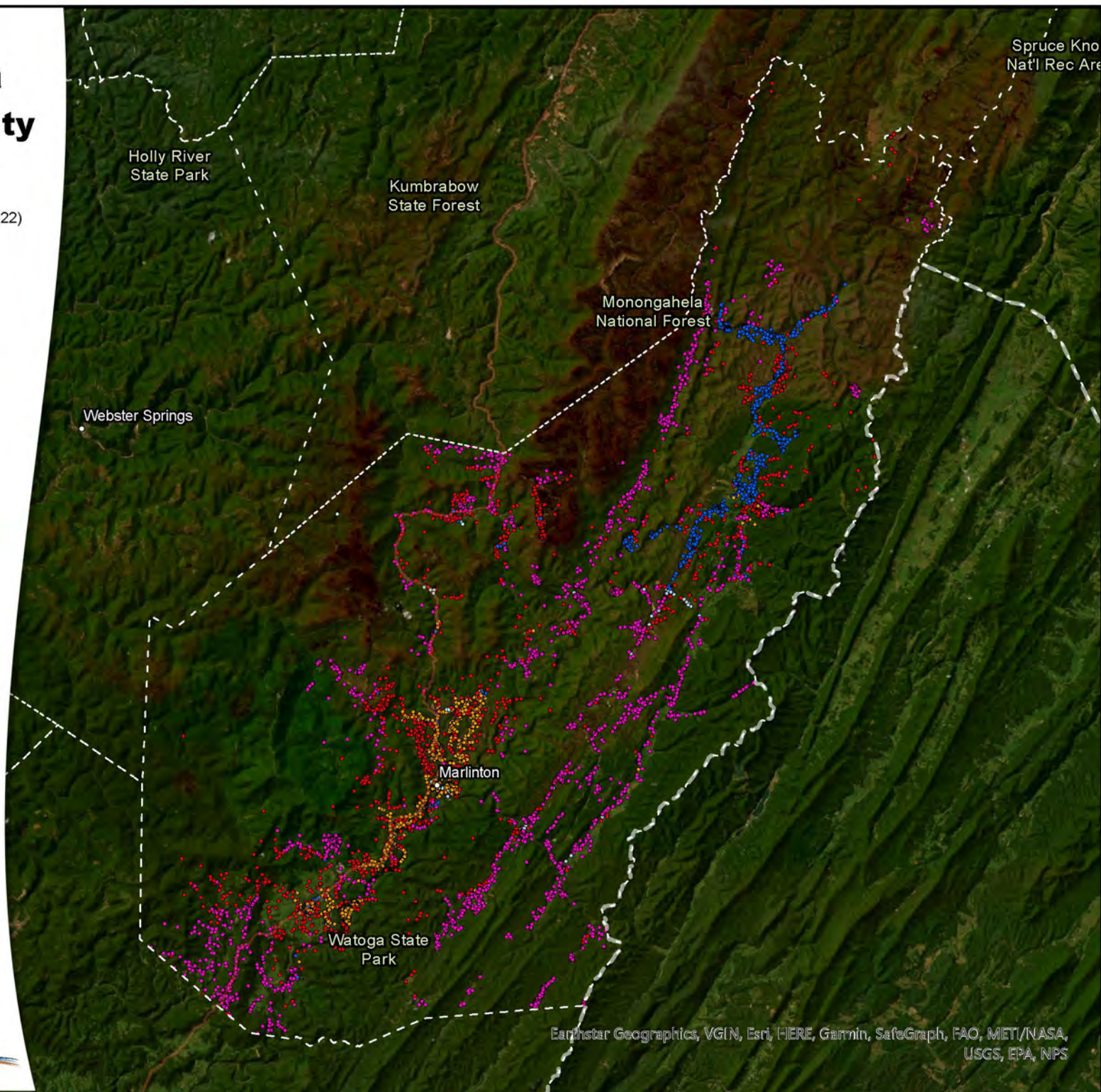
West Virginia Pocahontas County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: ACAM
- FCC: CAFII
- USDA ReConnect
- Appalachian Regional Commission



0 5 10 Miles

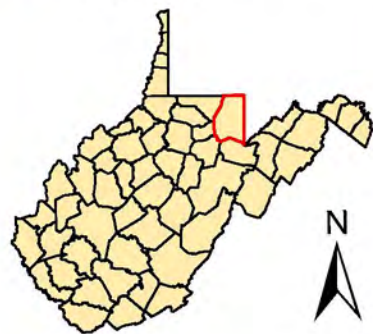


Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

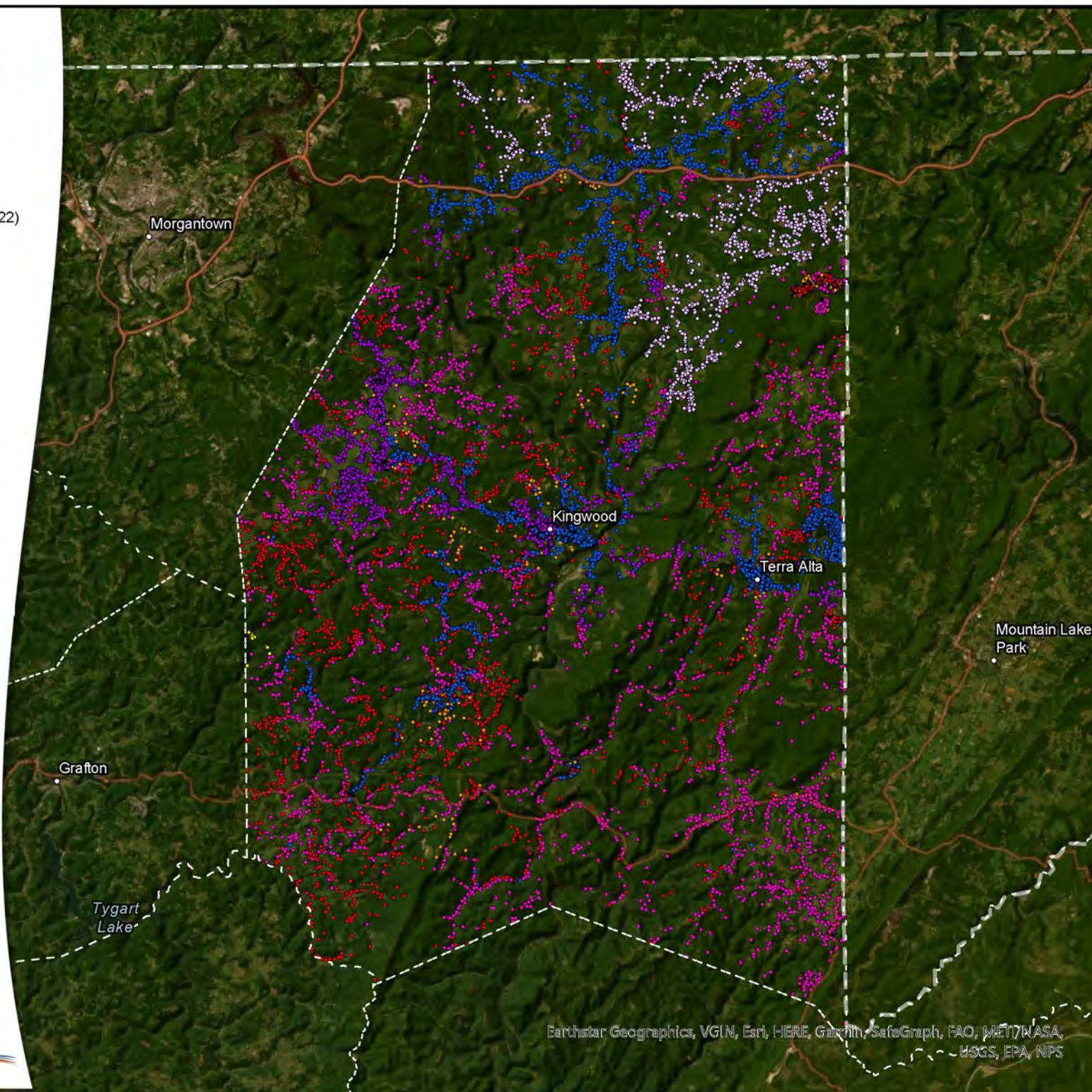
West Virginia Preston County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF
- USDA Community Connect



0 3.5 7 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

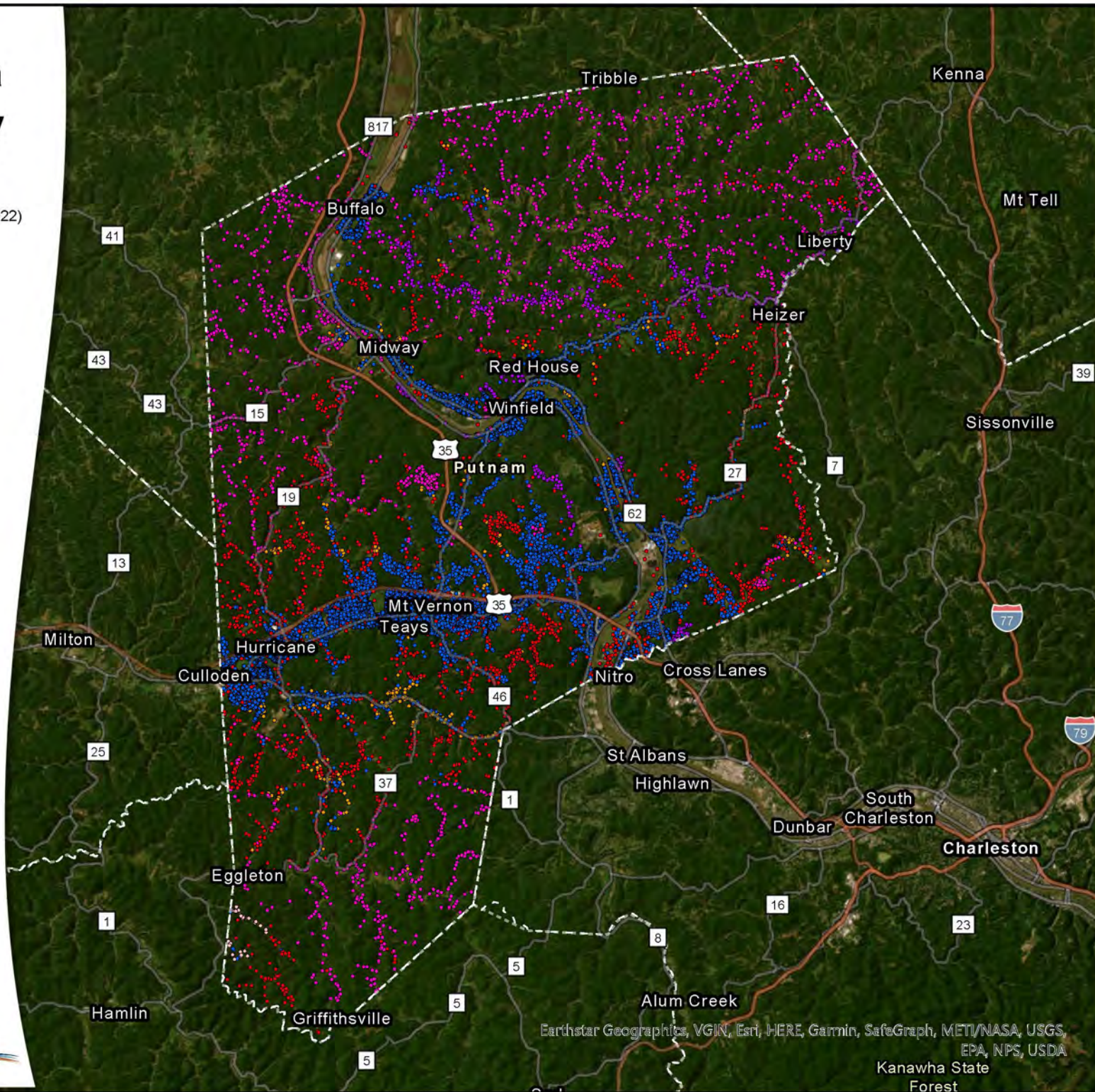
West Virginia Putnam County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- FCC: RDOF
- FCC: ACAM



0 2.75 5.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA
Kanawha State Forest

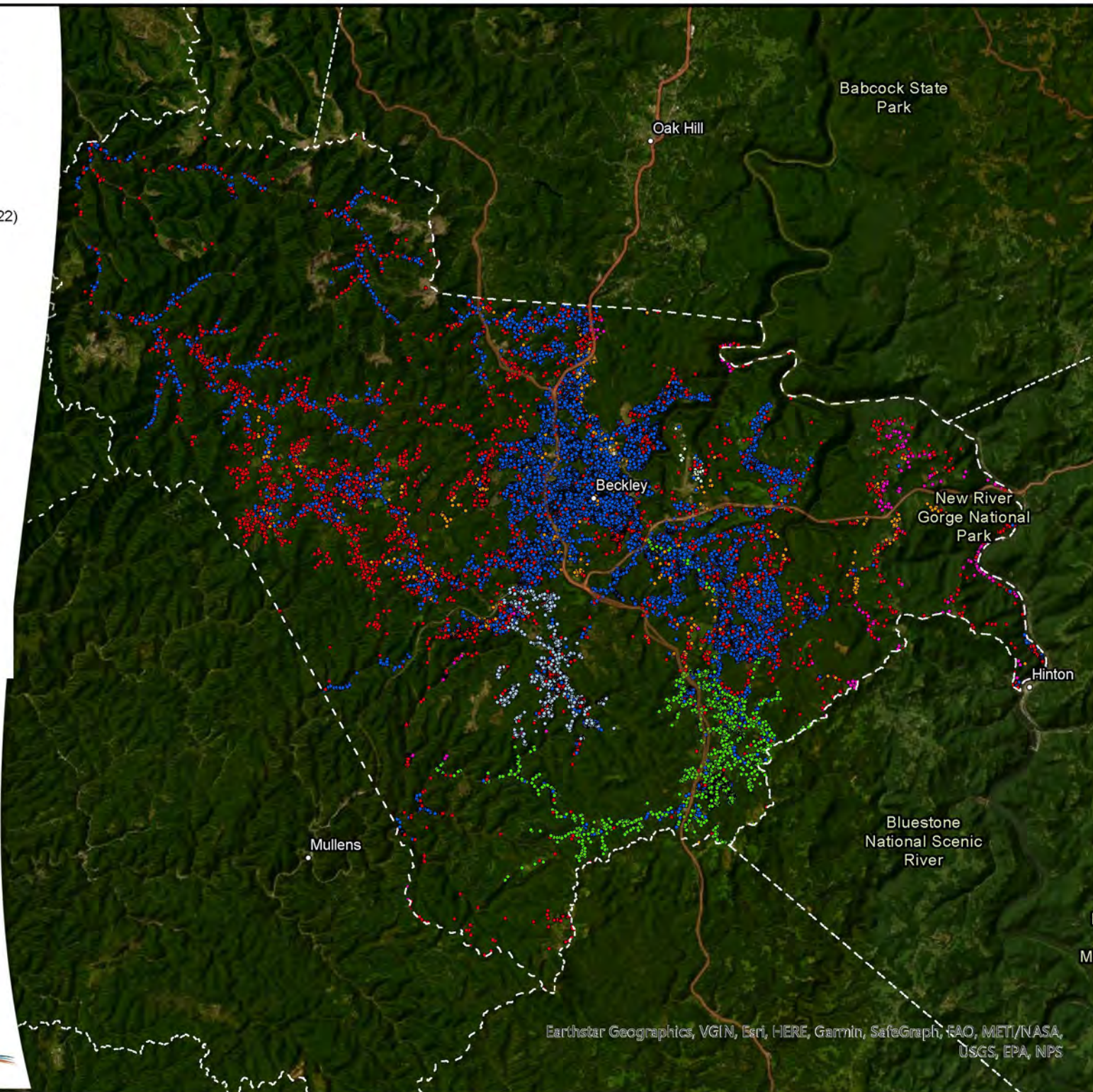
West Virginia Raleigh County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- Appalachian Regional Commission Community Development Block Grant



0 3.75 7.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

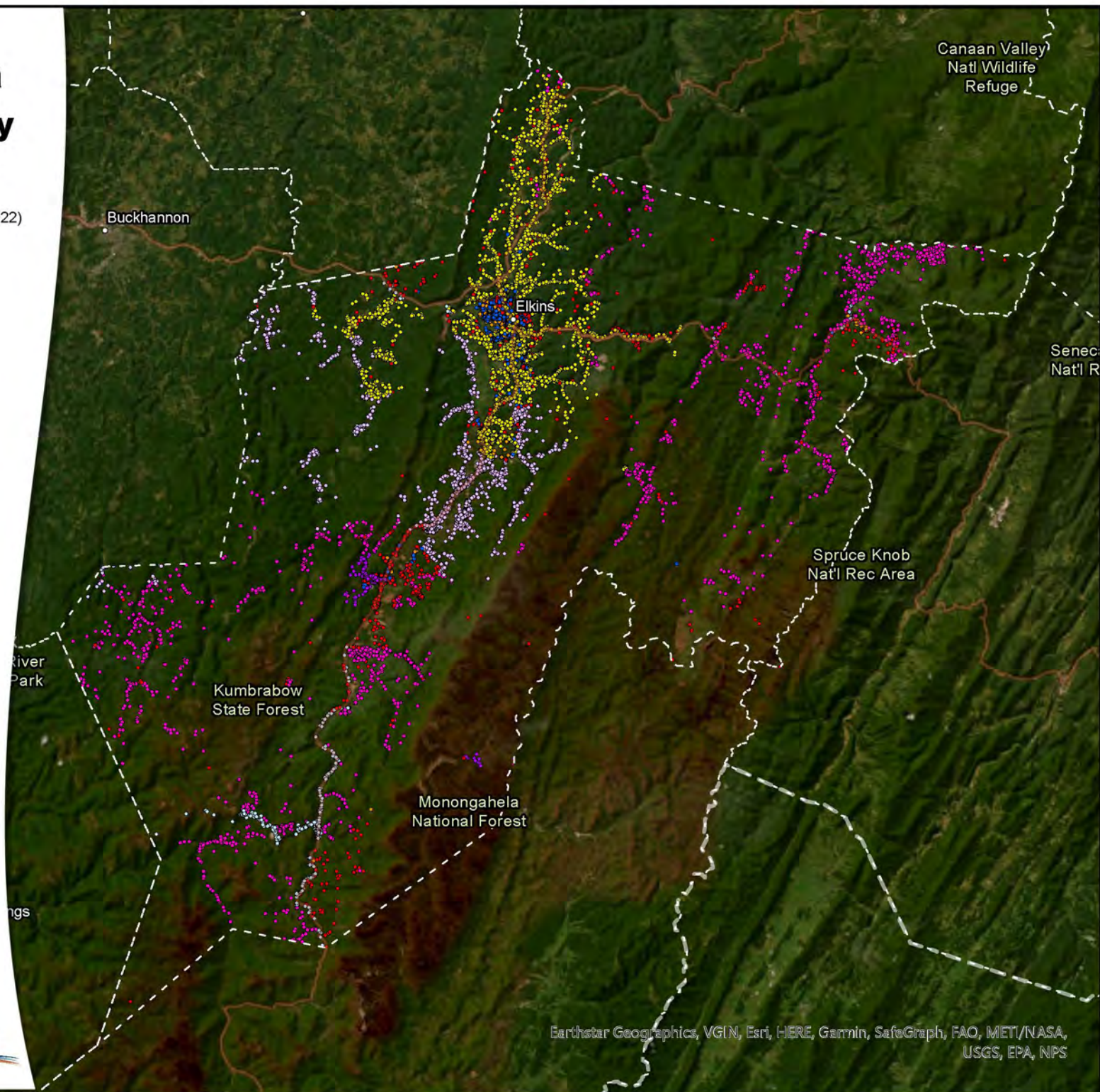
West Virginia Randolph County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF
- USDA ReConnect
- USDA Community Connect
- Appalachian Regional Commission



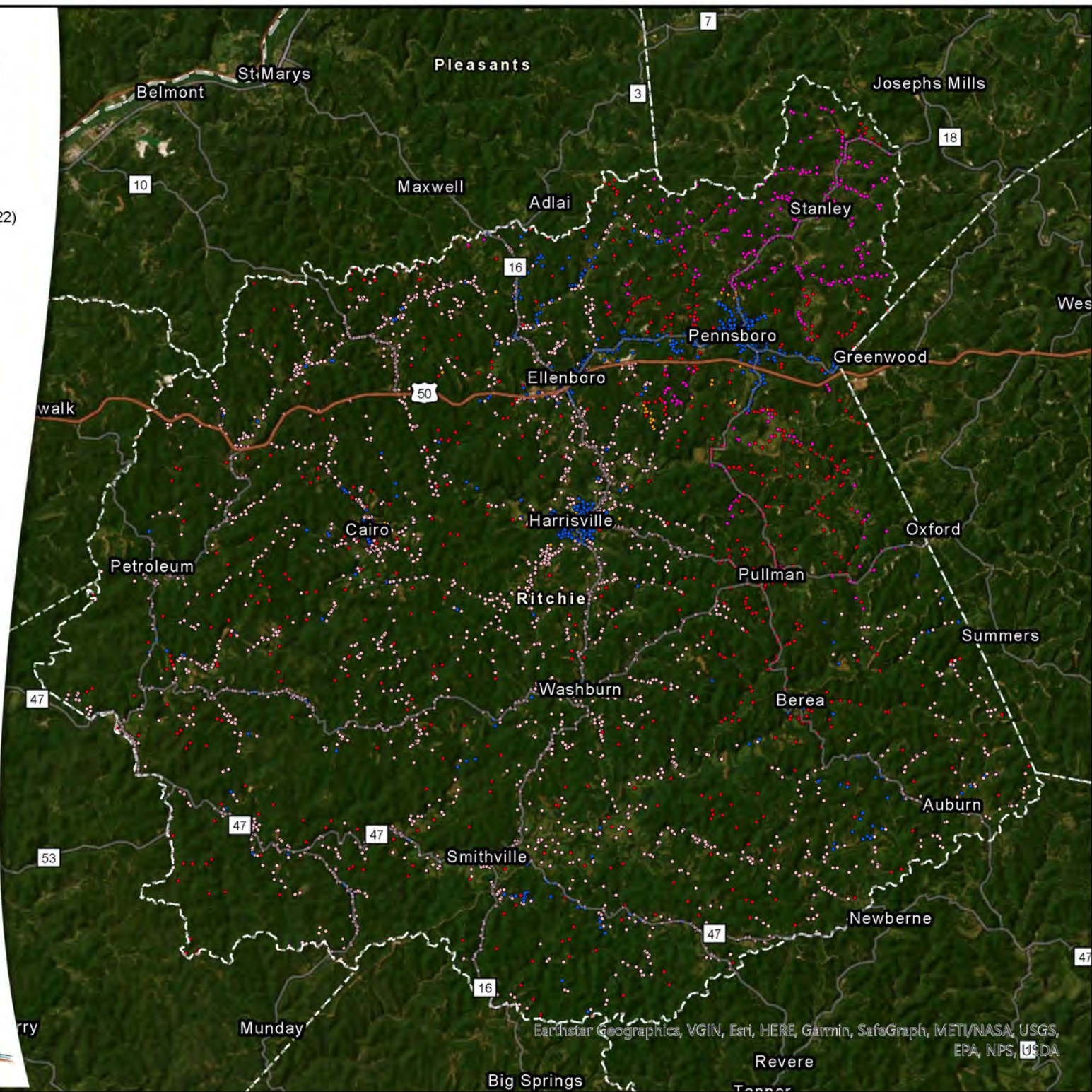
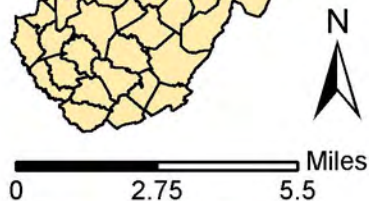
0 5 10 Miles



West Virginia Ritchie County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM



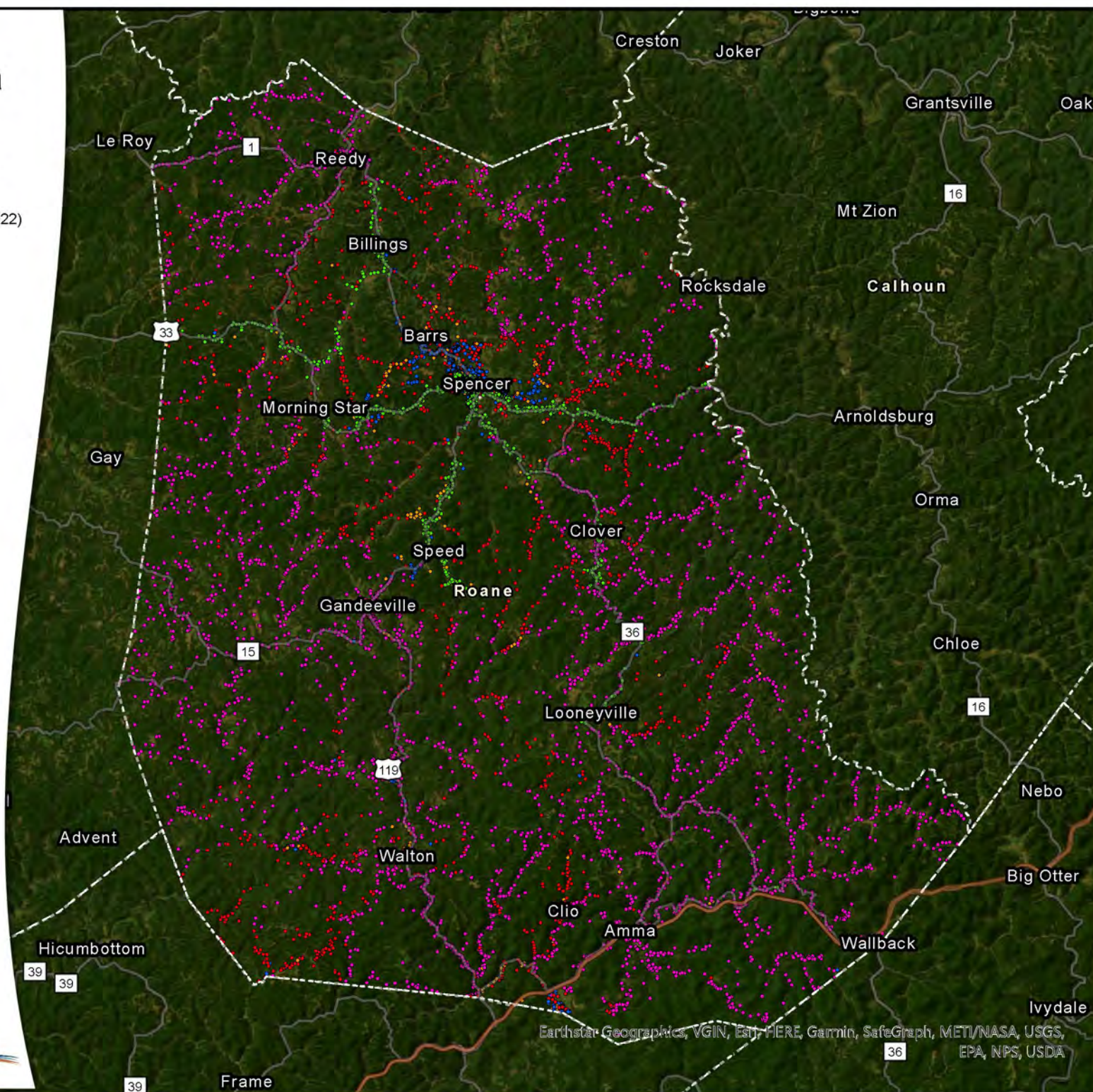
Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

(BDC Fabric Locations as December 31, 2022)

-  BEAD: Unserved
-  BEAD: Underserved
-  BEAD: Served
-  ARPA: GigReady
-  FCC: RDOF



A horizontal number line representing distance in miles. It has tick marks at 0, 2.75, and 5.5. The word "Miles" is written at the right end of the line.



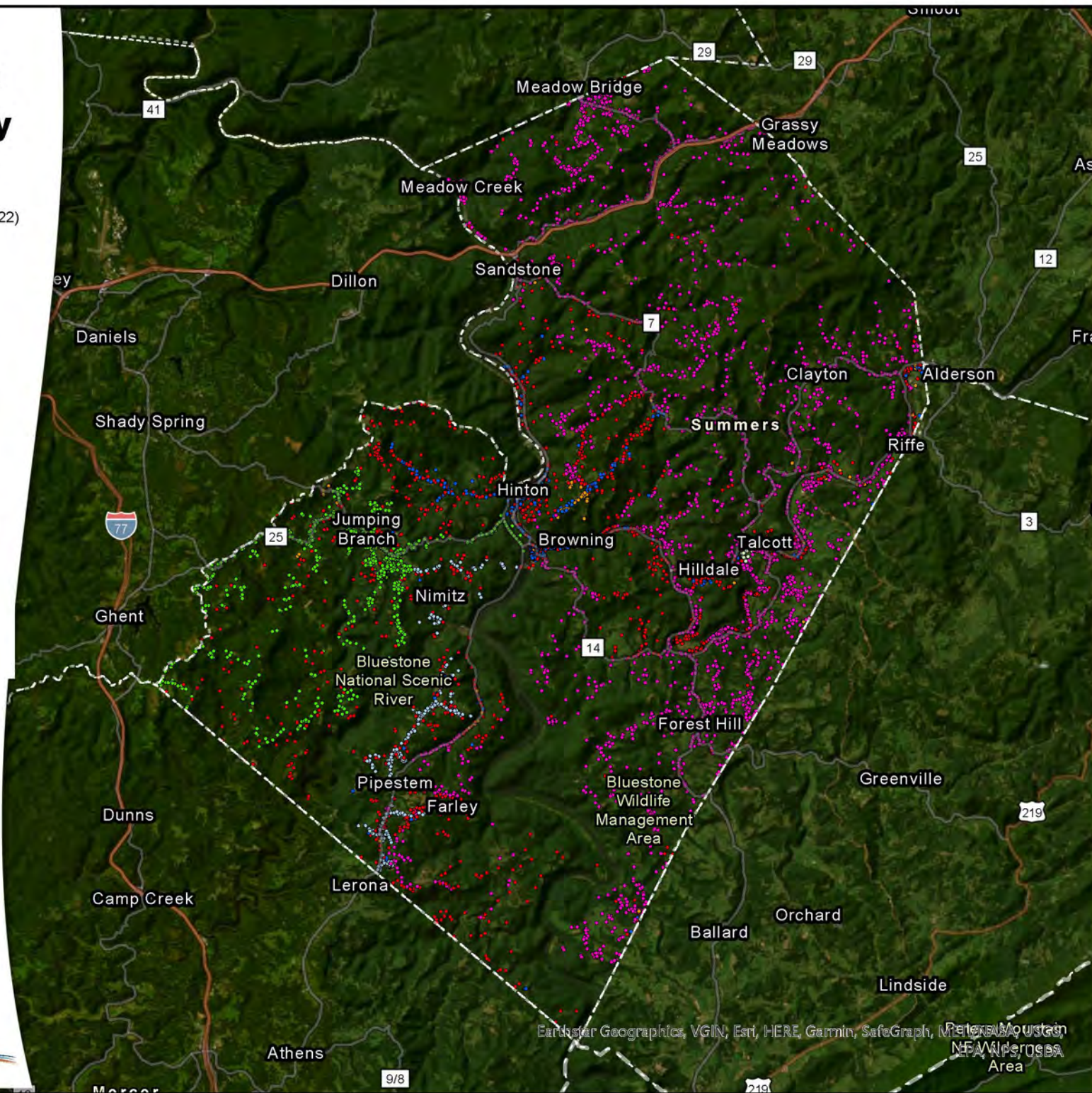
West Virginia Summers County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- Appalachian Regional Commission
- Community
- Development Block Grant



0 3 6 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, Mapbox, OpenStreetMap contributors, and the GIS User Community

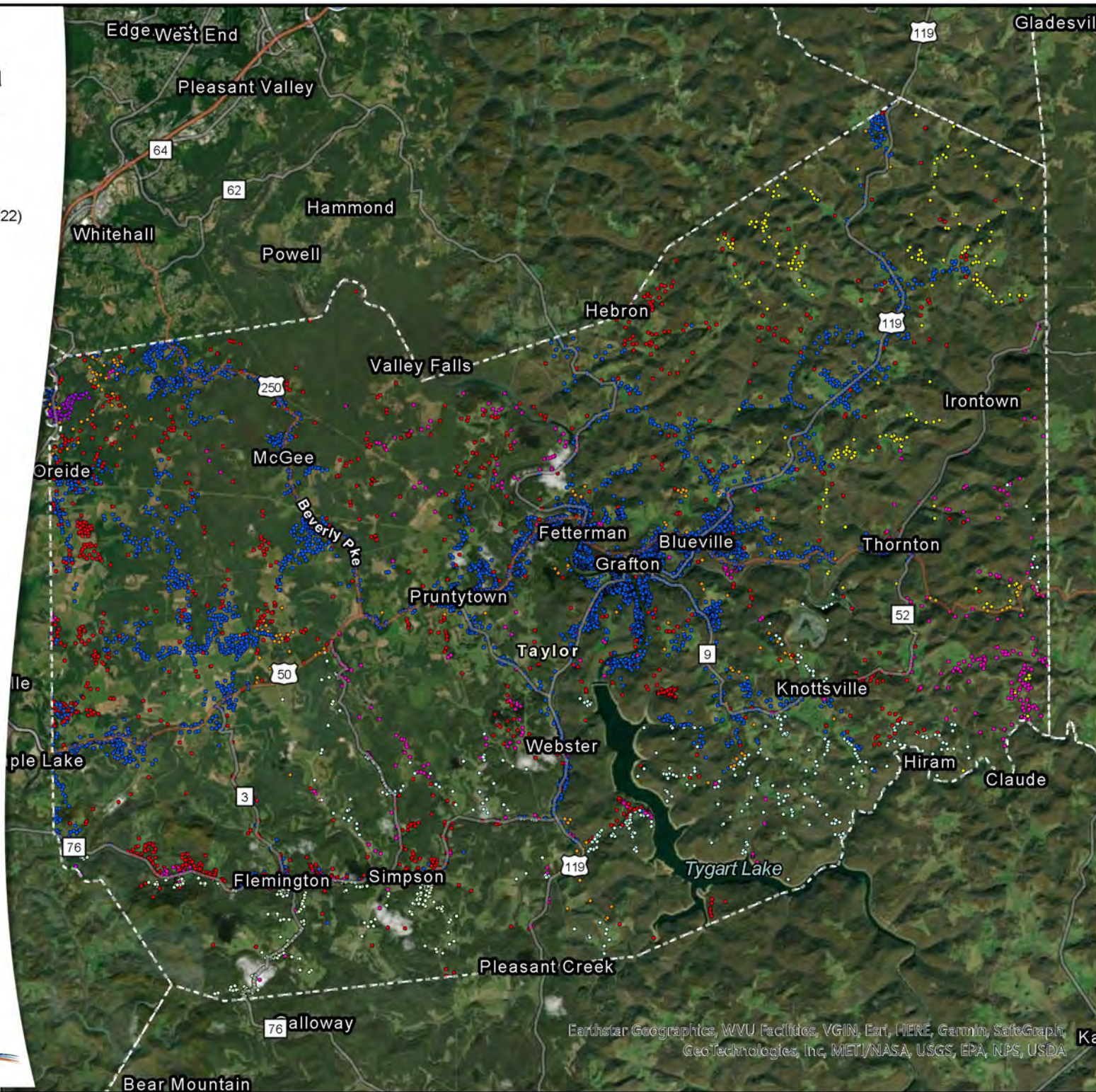
West Virginia Taylor County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: LEAD
- ARPA: MBPS
- FCC: RDOF
- FCC: CAFII
- Community
- Development Block Grant



0 1.5 3 Miles



Earthstar Geographics, WVU Facilities, VGIN, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Tucker County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

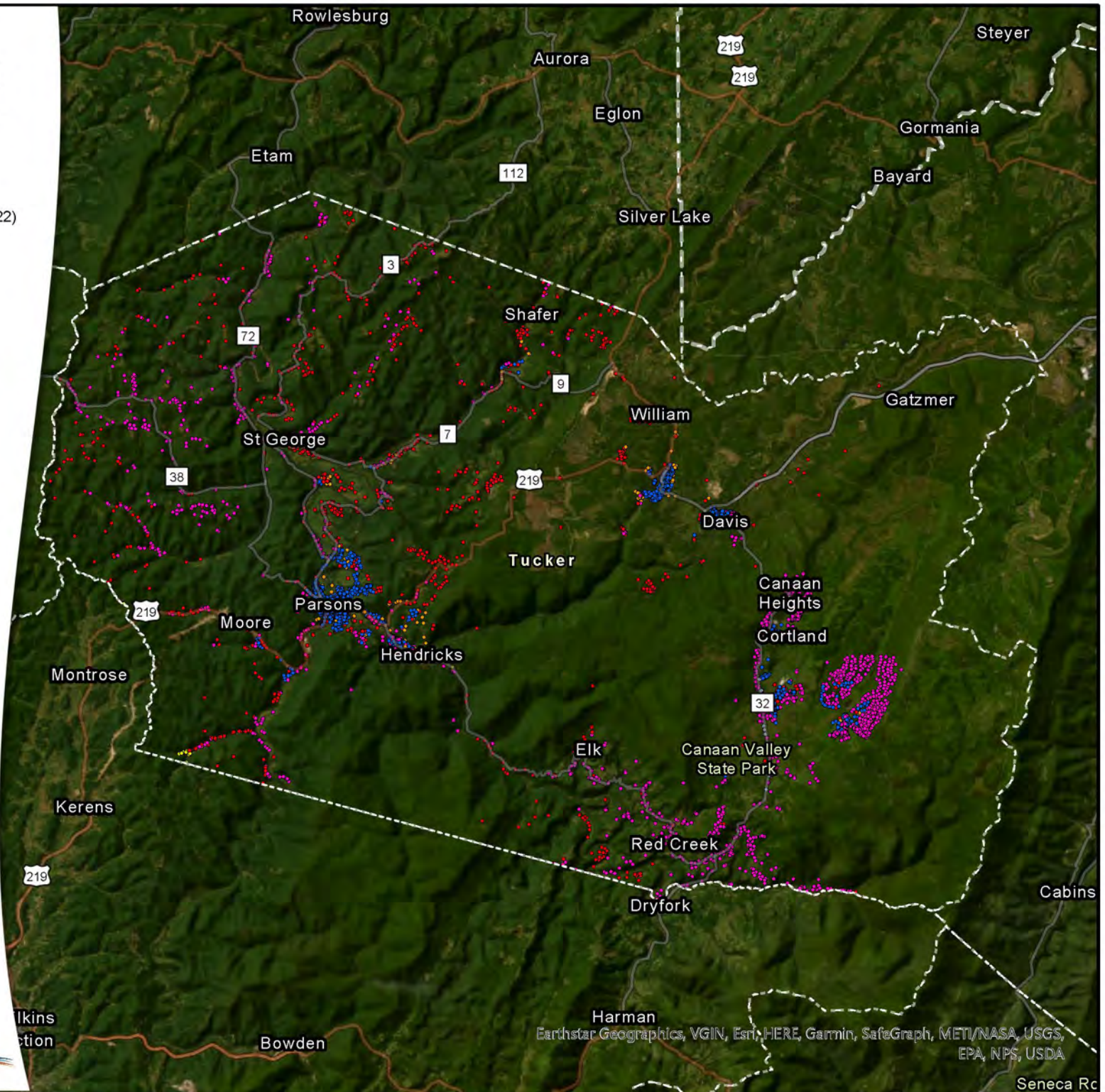
- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: MBPS
- FCC: RDOF
- Appalachian Regional Commission



0 2.75 5.5 Miles



WEST VIRGINIA
BROADBAND
ENHANCEMENT COUNCIL



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

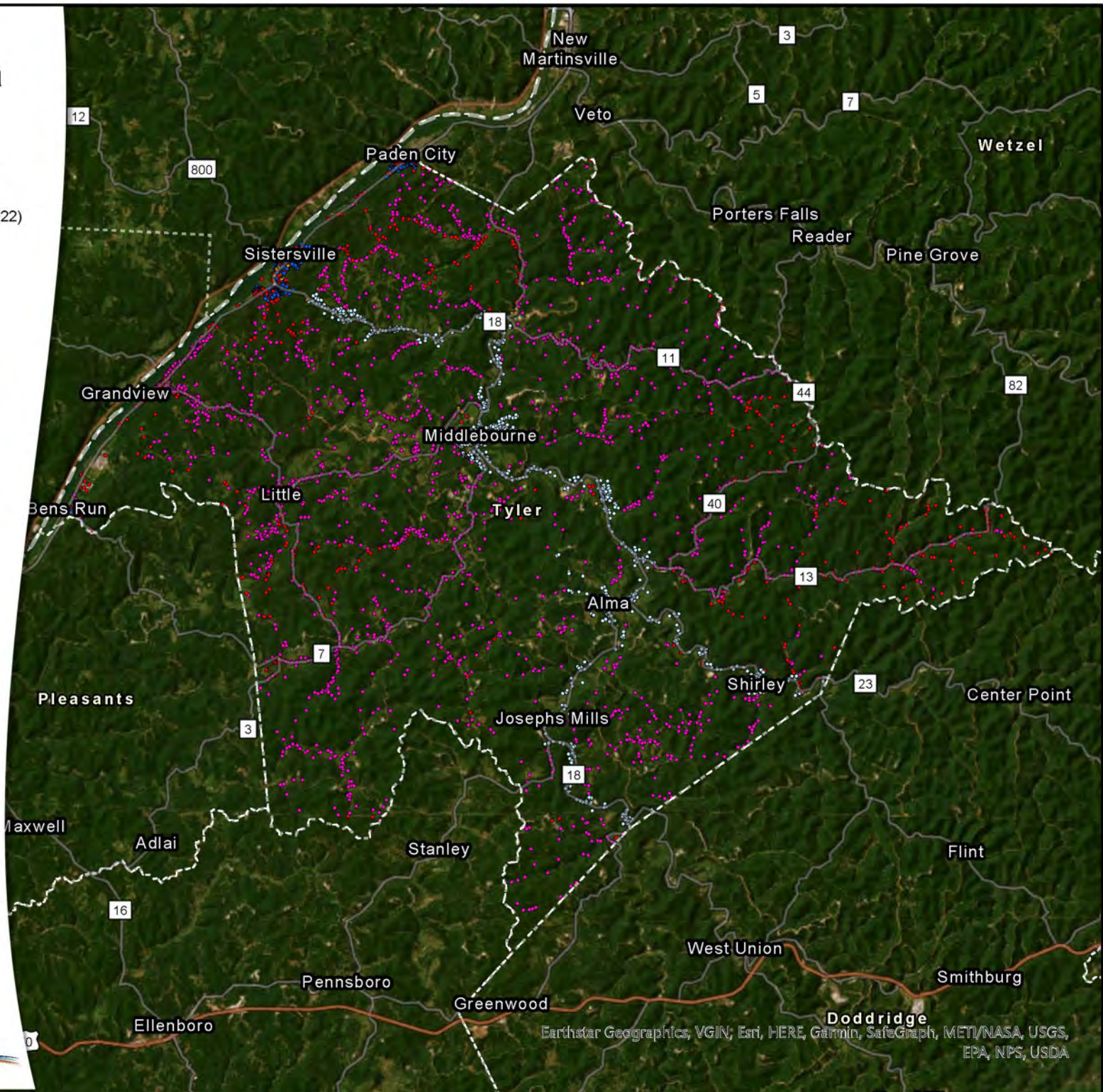
West Virginia Tyler County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- USDA ReConnect



0 2.5 5 Miles

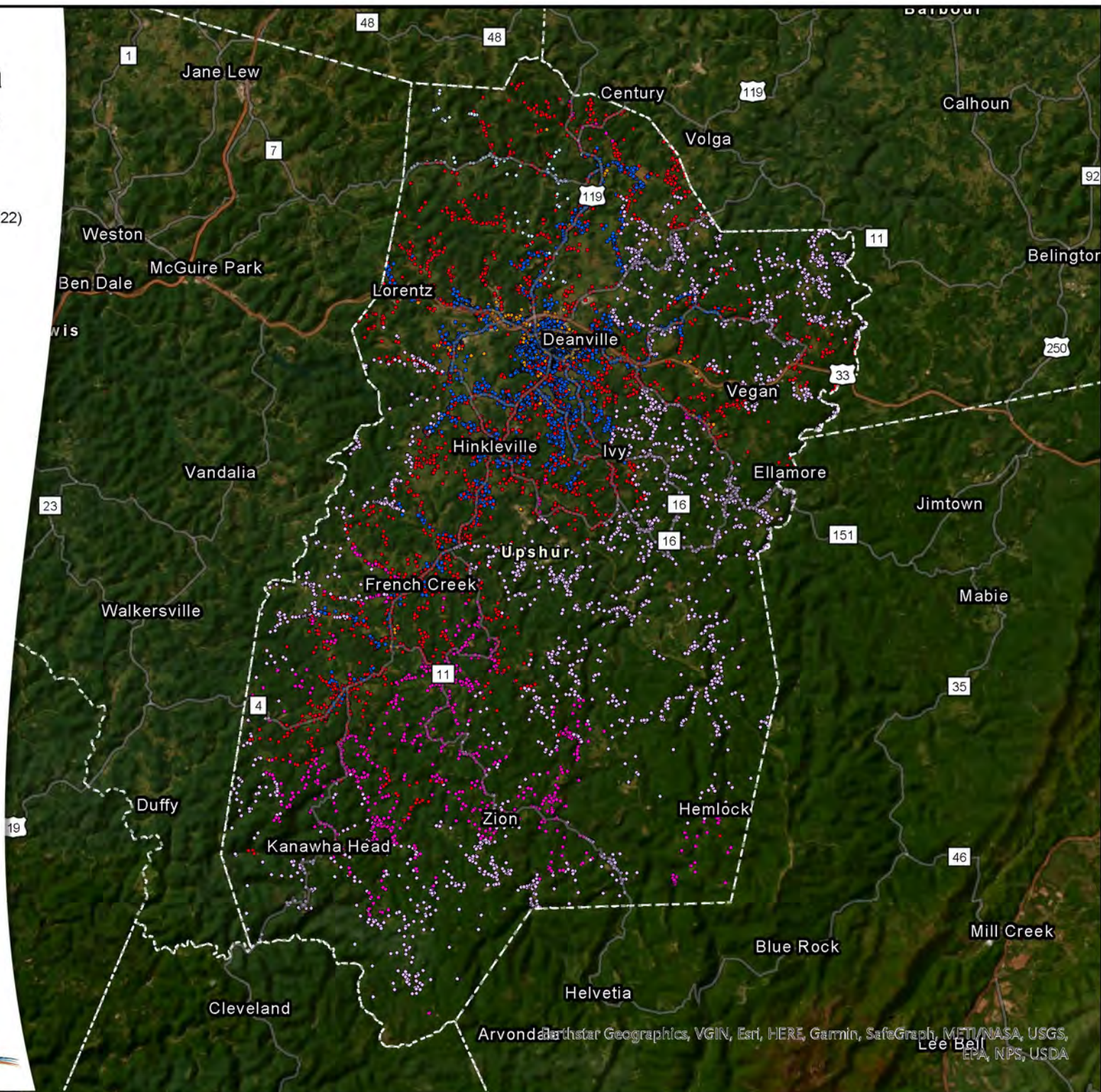
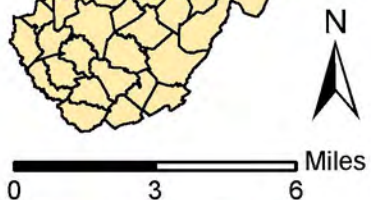


Earthstar Geographics, VGIN; Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

West Virginia Upshur County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- USDA ReConnect
- USDA Community Connect



Arvon, Bartholomew, Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

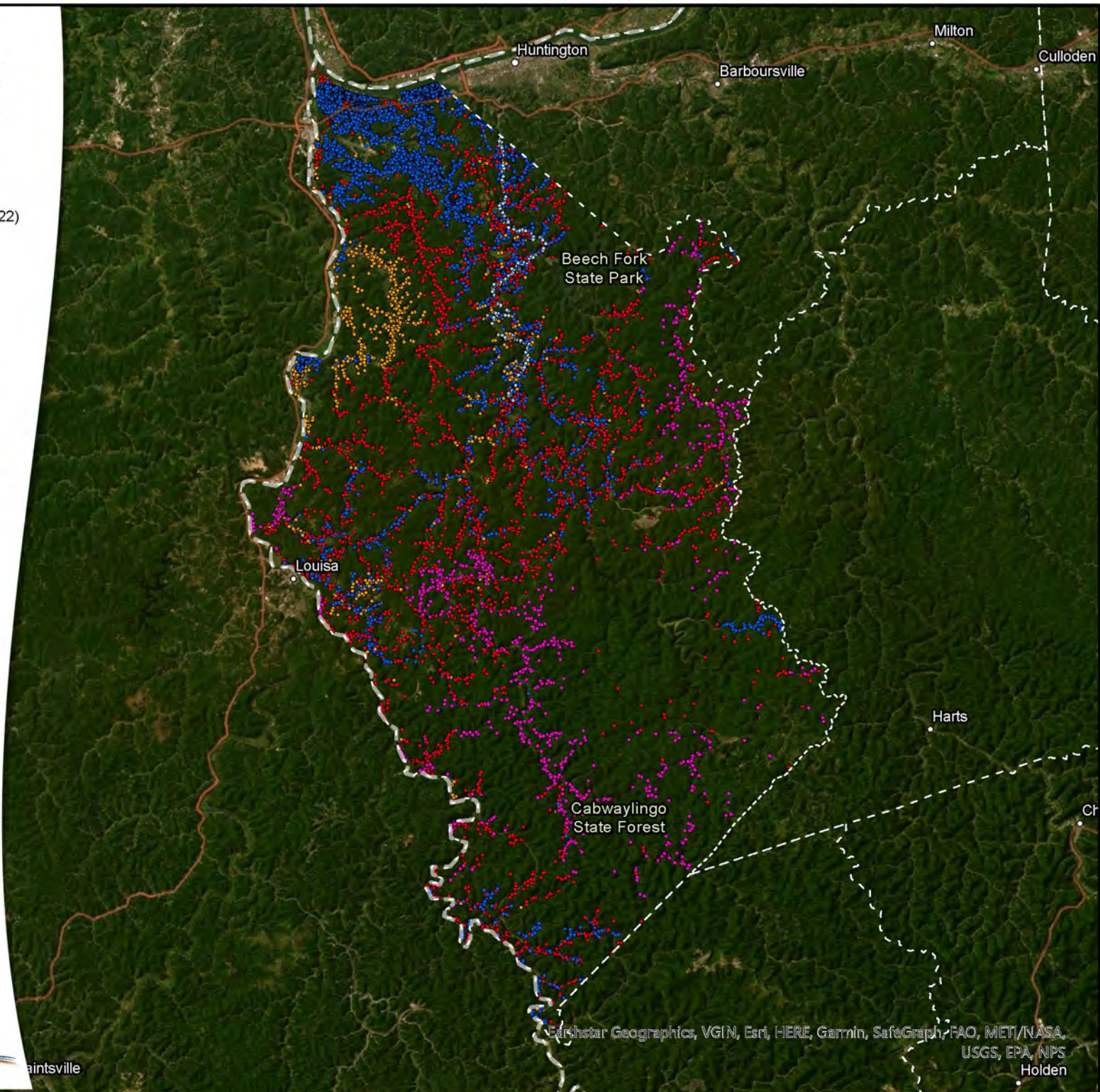
West Virginia Wayne County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- Appalachian Regional Commission



0 4 8 Miles



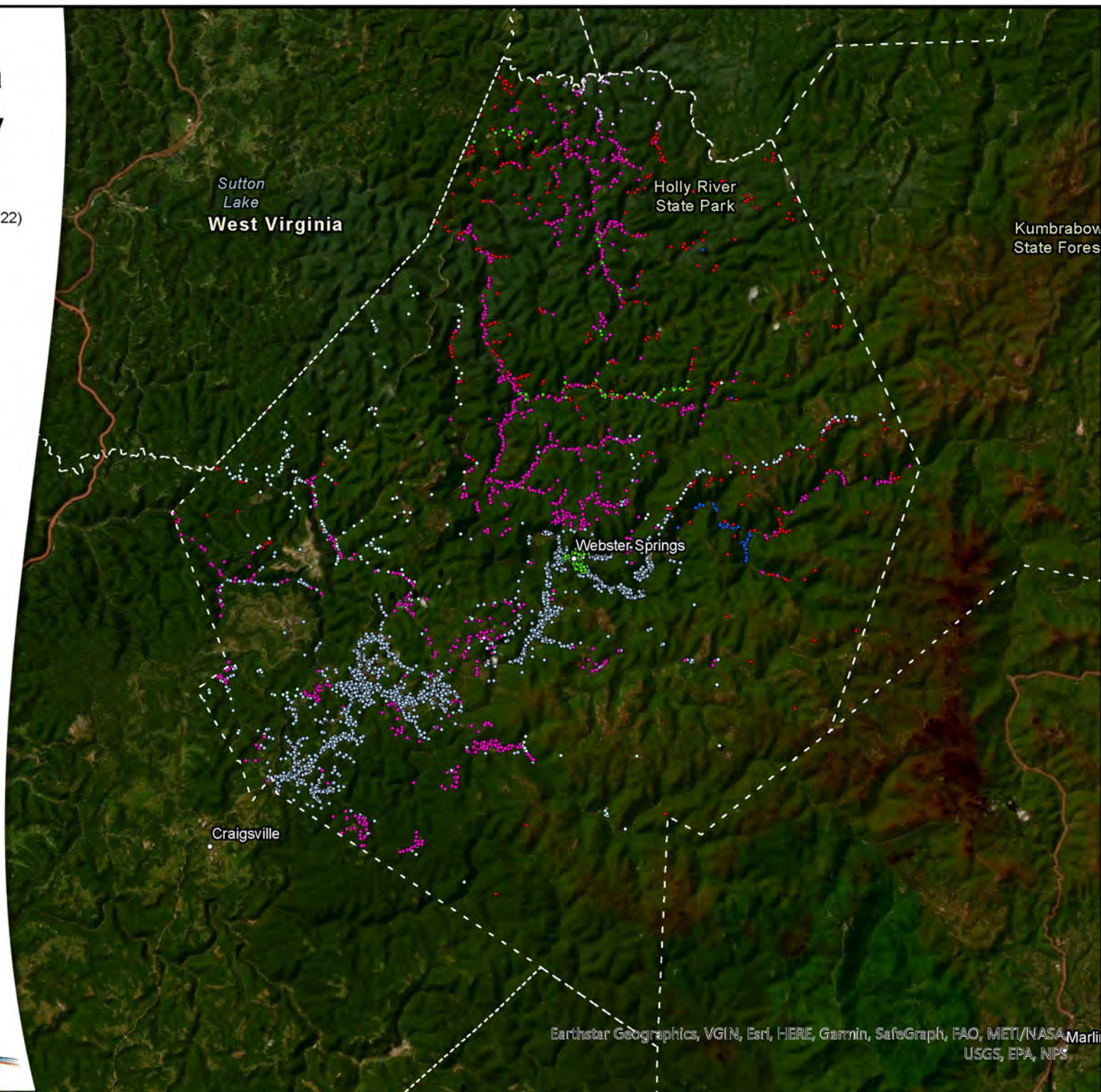
West Virginia Webster County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- ARPA: GigReady
- FCC: RDOF
- FCC: CAFII
- USDA ReConnect
- USDA Community Connect
- Appalachian Regional Commission



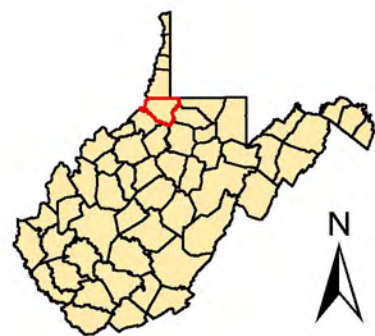
0 3.5 7 Miles



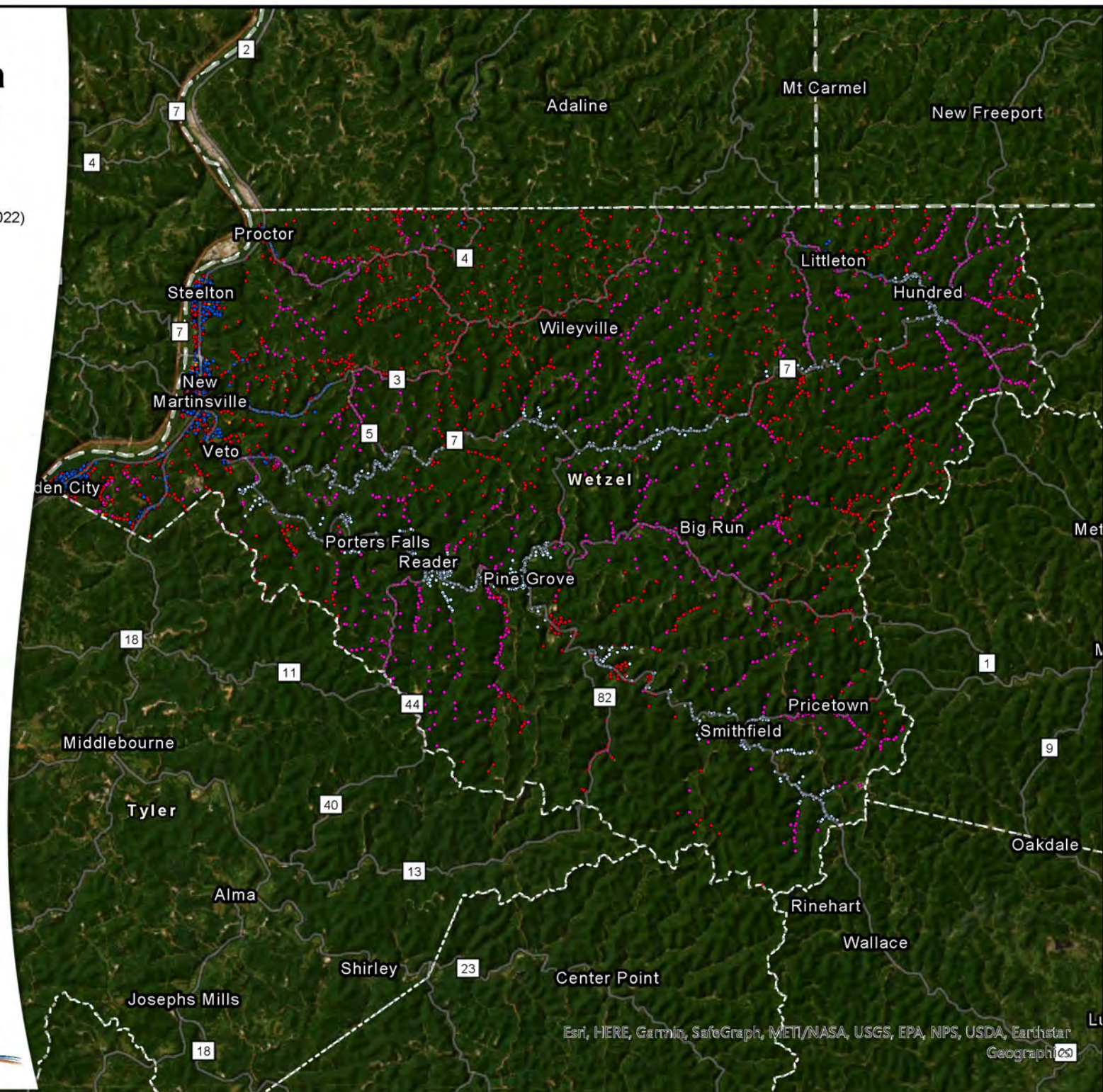
West Virginia Wetzel County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- USDA ReConnect



0 2.75 5.5 Miles



Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, Earthstar
Geographic

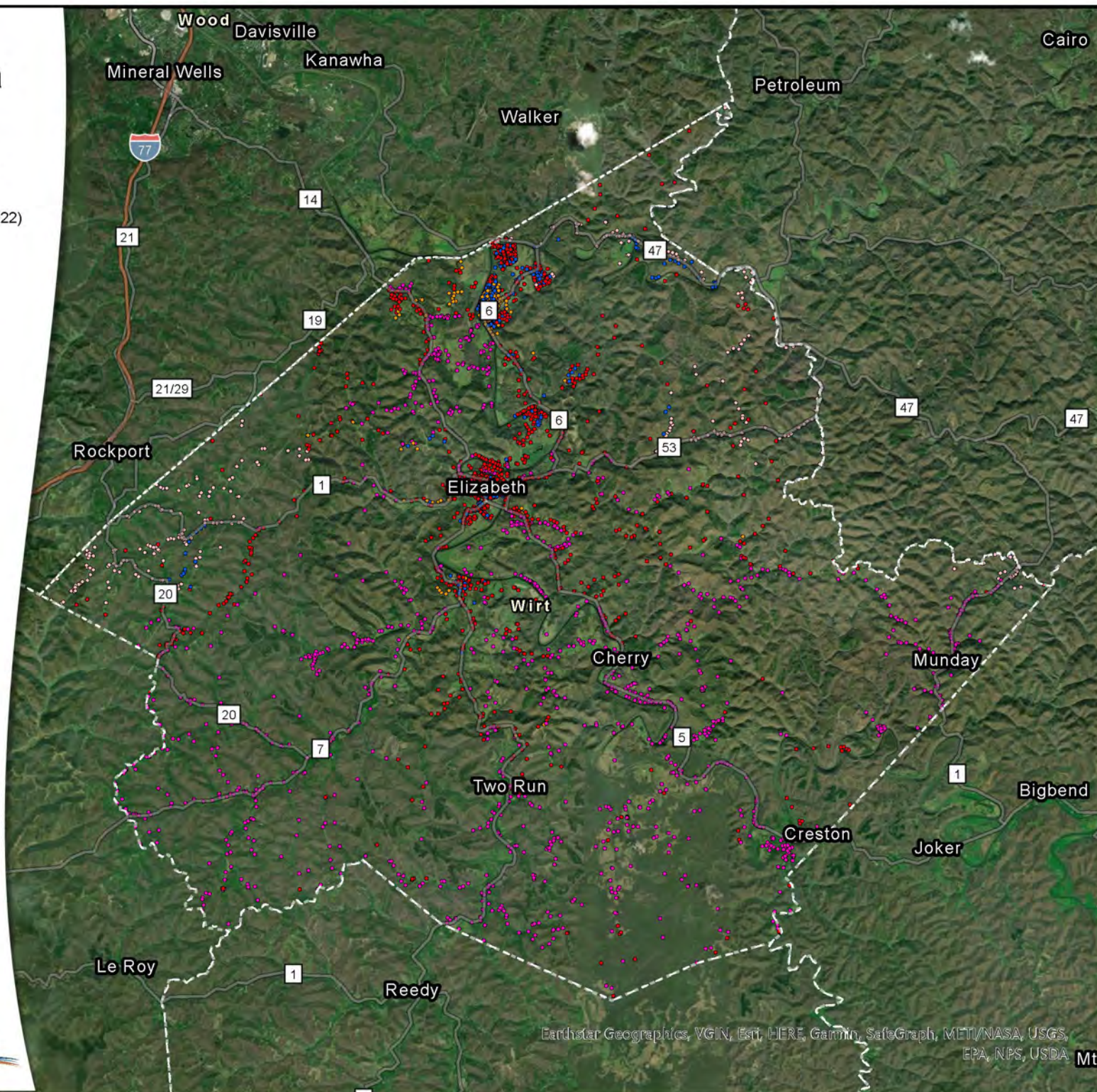
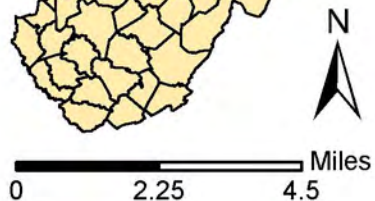
West Virginia

Wirt County

BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA Mt

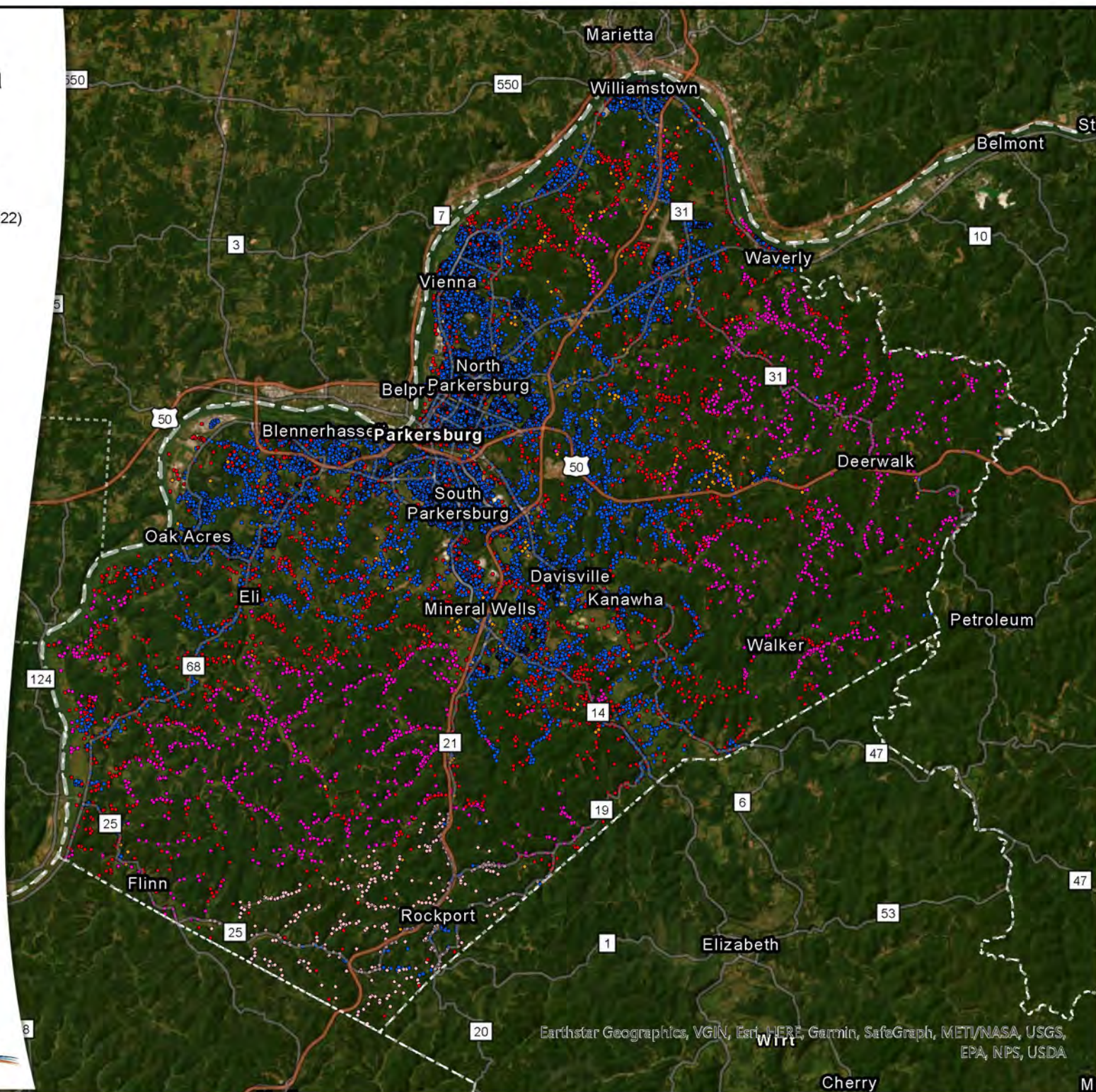
West Virginia Wood County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- FCC: ACAM



0 2.75 5.5 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA

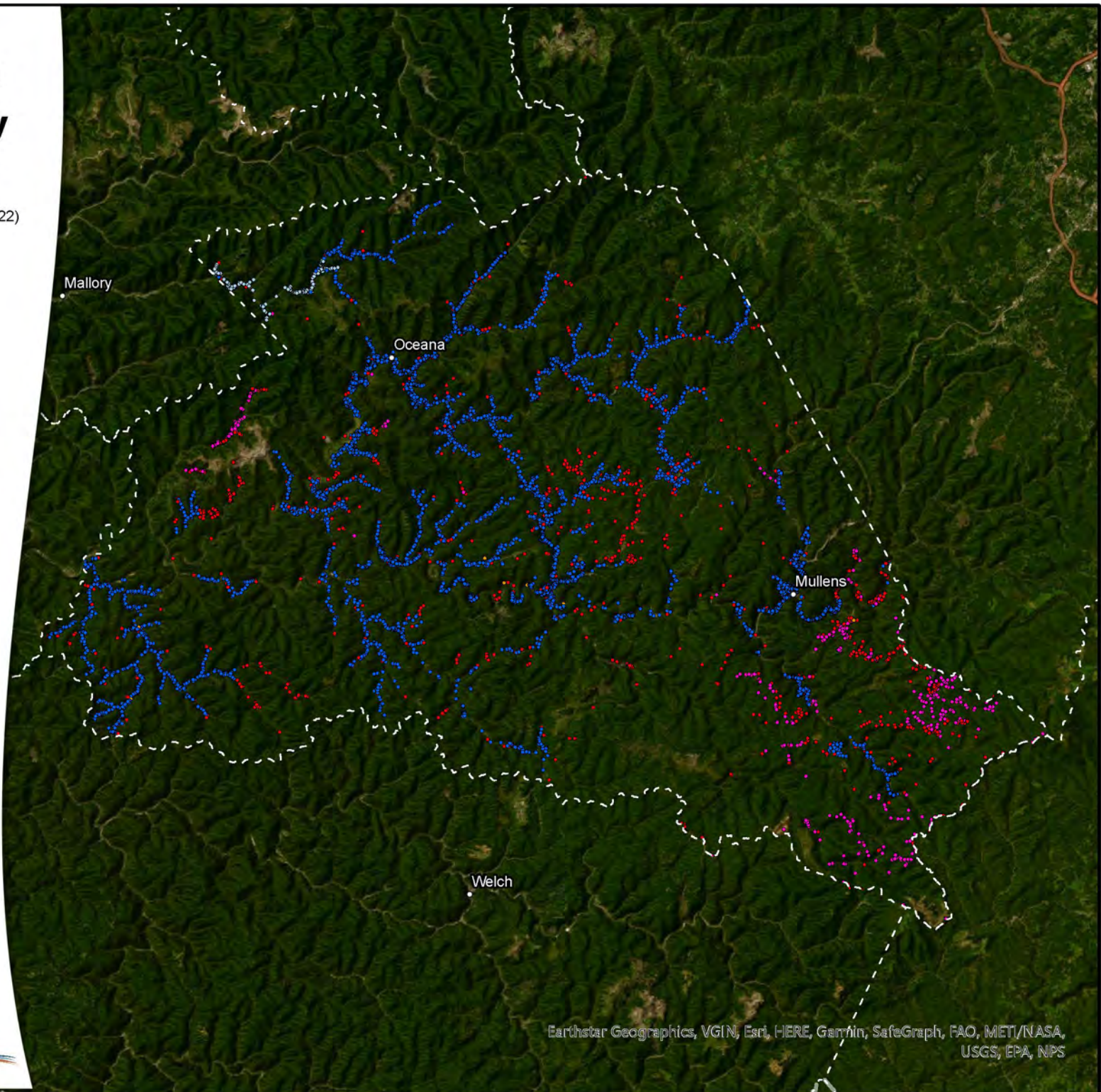
West Virginia Wyoming County BEAD Locations

(BDC Fabric Locations as December 31, 2022)

- BEAD: Unserved
- BEAD: Underserved
- BEAD: Served
- FCC: RDOF
- Appalachian Regional Commission



0 3.5 7 Miles



Earthstar Geographics, VGIN, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS