

# Municipal Broadband Analysis

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## Summer 2022

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Livingston County Planning Department



# Municipal Broadband Analysis

## Light Up Livingston



'Light Up Livingston' is a Livingston County initiative that responds to the need for high-speed, affordable broadband service in the County. The goal is to provide the opportunity for access to high-speed, fiber-optic internet to every address.

The Livingston County Board of Supervisors and County Administrator Ian M. Coyle are dedicated to improving the high-speed broadband network to enrich the quality of life for residents, ensure that economic development opportunities are available for agriculture and businesses and have a positive impact on education, telemedicine, emergency services, the local economy and home values.

In order to achieve the goals of this program, a tiered approach has been identified to strategically capitalize on local investment paired with grant funding.

<b>Tier 1</b>	<b>Unserved</b>	<b>Focus on addresses with no internet</b>
<b>Tier 2</b>	Underserved	Focus on addresses with speeds below 100/20 Mbps
<b>Tier 3</b>	Served	Existing internet is below 1 Gbps or choices in internet service provider is limited

*"With the changing nature of work, we recognize that high-speed internet is a must-have to remain competitive in today's workforce," said Livingston County Administrator Ian M. Coyle. "I'm happy to report our forward-thinking Light Up Livingston initiative is making great progress toward that end. I'd like our residents to know that we're invested in achieving County-wide broadband and bringing it to all our residents as soon as possible."*





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# Background Data

## Federal

The Federal Communications Commission (FCC) makes publically available fixed broadband deployment data. This information is from internet service providers. The internet availability, speeds and provider data is presented by census block. This information is the baseline information for which all GIS analysis was developed in this project, as the reporting is nationwide.

## State

The New NY Broadband Program awarded private companies funding for infrastructure expansion in qualifying census tracts within rural communities that lacked the necessary broadband infrastructure. The program focused on delivering high speed internet access to unserved and underserved areas (100 Mbps download speeds in most areas, and 25 Mbps in the most remote areas). In Livingston County, Hughes Net (satellite provider) and Armstrong (landline) were the internet service companies awarded funding for expansion in portions of the Towns of Portage, Nunda, Ossian and West Sparta. This project is complete and residents may subscribe to the affordable broadband services made available through this grant.

## Local

There are several technical studies identifying the need for improved access to broadband internet, including the County's anti-poverty initiative, known as *THRIVE LivINgston*, the *Livingston County Strategic Plan* and the *Livingston County Economic Development Strategic Plan*.

In addition to technical studies, Livingston County had four separate broadband strategies developed for better understanding of local conditions.

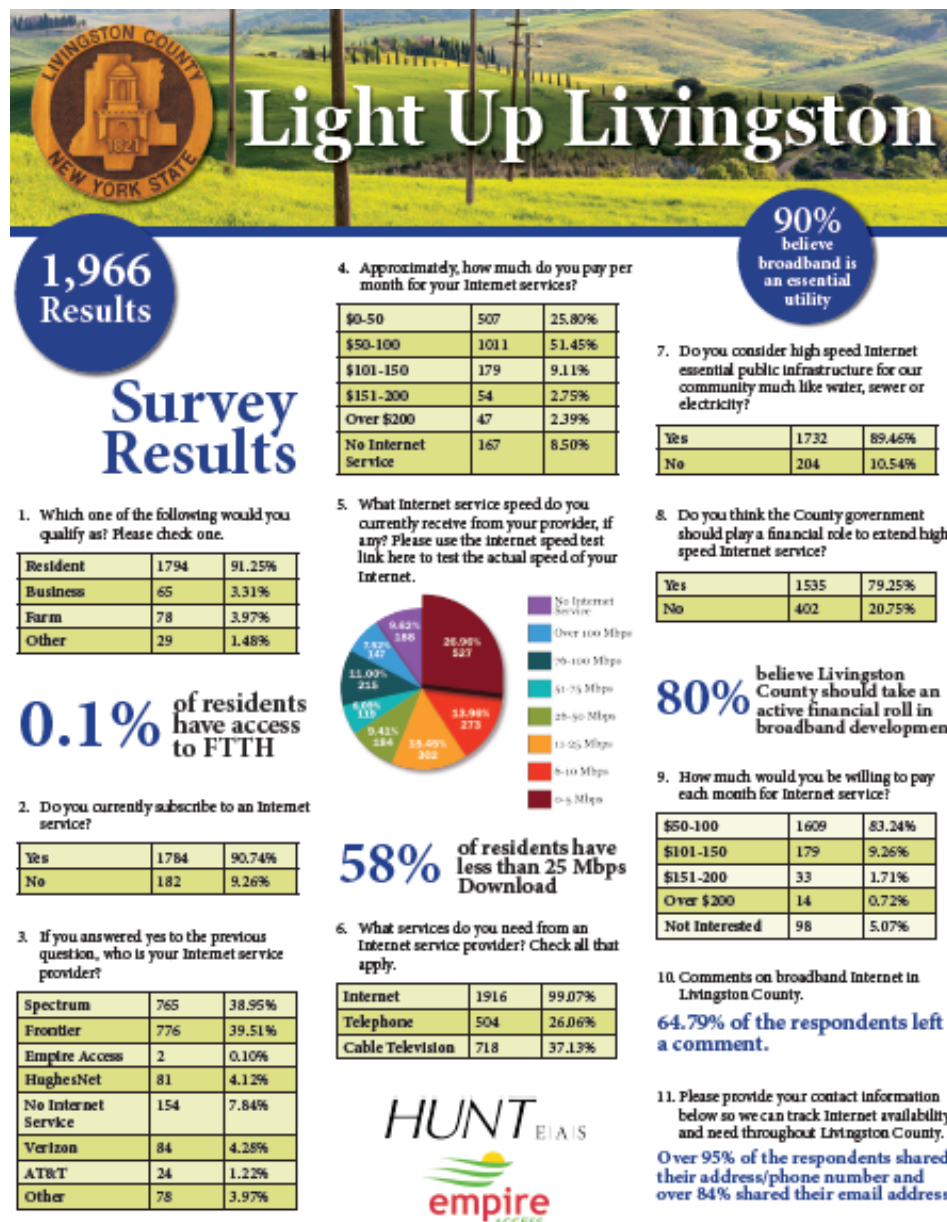
In May 2010, Livingston County published the *Broadband Telecommunications Needs Assessment*. This effort was multi-faceted and included an inventory of infrastructure, GIS gap analysis, explored options of public/private partnerships and identified stakeholders for implementation.

In 2018, *The Connecting Livingston County: Inventory Atlas of Broadband Assets* was completed by Planning Department Staff. The purpose of the document was to illustrate the many assets that Livingston County could utilize for consideration of broadband buildout. This tool identified vertical assets, public facilities, emergency facilities, commercial and industrial assets, downtown revitalization districts and vertical datum.



An *Engineering Report for Broadband Development* was completed in 2019 by HUNT Engineers, Architects, Land Surveyors & Landscape Architect DPC. This report was an extensive mapping exercise of current broadband offerings paired with funding opportunities for consideration. This document set forth a pathway to achieving the Light Up Livingston goals for 1 Gbps service to every address in the County through a strategic tiered approach.

In 2019, Livingston County released a public survey to analyze the need and provide more information for policymakers considering strategies for rural broadband development. The survey was designed to collect data of respondents based on their location. A major finding of the public input was that ninety percent of the nearly 2,000 survey respondents considered high speed internet an essential public infrastructure. An image of the survey summary results can be seen below.





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## Grant Programs

The Light Up Livingston initiative is comprised of several phases to leverage local investments with public grant funding opportunities, when available. The following information represents the most current grant status for broadband funding in Livingston County.

**New York State Broadband Program:** In Livingston County, Hughes Net (satellite) and Armstrong were the companies awarded for expansion in portions of the Towns of Portage, Nunda, Ossian and West Sparta. This project is completed and residents may subscribe for affordable broadband services.

**United States Department of Agriculture (USDA) Rural eConnectivity (ReConnect):**

Funded by the USDA, the ReConnect grant was awarded to Livingston County in a public-private partnership between Livingston County and Empire Access. Empire Access will own and operate a fiber-optic network that will offer reliable, high-speed internet access with speeds up to 1 Gig available to approximately 1,118 addresses. This project is currently underway in the engineering, design and permitting phase.

Total Project Cost	\$15,072,322
Federal Grant Amount	\$11,304,241
Local Share	\$3,768,081
Addresses Served	Approximately 1,118

**National Telecommunications and Information Administration (NTIA) Broadband**

**Infrastructure Program:** This application included deployment of the same public private partnership with Empire Access as formed for previous grants for final mile fixed broadband service in NTIA eligible territories through 123.5 miles of fiber to the premise network. Approximately 3,356 addresses would be served through this opportunity. In June of 2022, Livingston County found out that this grant was not awarded. As all territories included in the NTIA grant application were also included in the USDA ReConnect Round 3 application request, these addresses may receive funding in the future.

Total Project Cost	\$10,626,960
Federal Grant Amount	\$9,564,264
Local Share	\$1,062,696
Addresses Served	Approximately 3,356



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**USDA ReConnect Round 3:** Livingston County filed an application to the USDA ReConnect grant program third round of funding availability. The proposal was to partner again with Empire Access through a public private partnership to deliver 283 network miles of fiber to underserved and unserved areas of Livingston County.

Total Project Cost	\$15,765,700
Federal Grant Amount	\$11,824,275
Local Share	\$3,941,425
Addresses Served	Approximately 4,622

## Phase I

Under Phase I of Light Up Livingston, Hughes Net and Armstrong Telephone were awarded funds from the NY Broadband Program office.

## Phase II

Phase II project was funded by the United States Department of Agriculture (USDA) ReConnect round two grant. This phase involves a public-partnership between Livingston County and Empire Access. In total 1,118 addresses will be served through this awarded project.

## Phase III

In June of 2022, Livingston County found out that this grant was not awarded.

Phase III is comprised of areas which Livingston County and Empire Access applied to the NTIA for grant funding. If funded, the NTIA project will provide high-speed internet service to 3,356 new addresses, including 2,743 residential and 260 business.

## Phase IV

Through the same USDA ReConnect grant program that Phase II was funded through, Livingston County and Empire Access partnered again for an application to provide high-speed internet access to about 4,622 addresses in Livingston County. This application was filed on March 9, 2022 and is pending grant award.



# Methods

Utilizing all of the data from federal, State and local sources, staff created a series of maps for existing broadband infrastructure in the county. In an effort to simplify and provide clarity, all grant programs that were funded were included in the same map layer and remaining grants which Livingston County had not heard if funding was awarded yet were grouped together.

*Grants Awarded: NYS Broadband Program and USDA ReConnect Round 2  
Grants Applied: NTIA and ReConnect Round 3*

After the mapping and public input portion of this project was conducted, Livingston County was notified the NTIA grant was not awarded. As all NTIA territories were included in ReConnect Round 3, the notification of denial did not materially affect this analysis. This report reflects the most updated information.

The internet provider data obtained from the County's 2019 public survey was displayed on the maps. The existing providers in Livingston County are Charter Spectrum, Frontier, Empire Access, and Satellite. Any address which public input results indicated a particular provider was indicated on the published maps as a larger point than the simple address data.

Meetings were held with Town Supervisors and their representatives to present the data and discuss the Light Up Livingston initiative materials. These meetings took place between March and May 2022 at the County offices in Geneseo. A copy of the instructions and data input forms can be viewed at the end of this report.

Maps were presented both in paper copies and digitally. Digital maps display information readily available to the public. By utilizing the County's publically available broadband funding GIS web mapping application, staff was able to demonstrate the available resources. This application is available through the Light Up Livingston webpage: [www.livingstoncounty.us/1175/Light-Up-Livingston](http://www.livingstoncounty.us/1175/Light-Up-Livingston)

Each Town Supervisor was given the opportunity to take the materials presented and strategically gather information on their municipality. Some Town Supervisors formed committees, while others asked for input at Town Board meetings or via personal contacts. Public input was gathered about available internet service providers or if no internet service is available and the corresponding addresses.

Staff then collected, digitized, edited and published the analysis for each Town. Final results of this mapping analysis can be seen on the following pages.

Mapping





Input

Data Analysis



This map illustrates the Village of Avon, New York, and its surrounding areas. The map includes a scale bar (0 to 1.8 miles) and a compass rose. The Village of Avon is highlighted in yellow, and the Town of Caledonia is highlighted in orange. The map shows various roads, including E Main St, Lake Rd, and Fowlerville Rd. It also shows the location of the Village of Avon, the Town of Caledonia, and the Town of Livonia. The map includes a list of roads and trails, such as Cemetery Rd, Meadow Cir, Sackett Rd, Littleville Rd, N Littleville Rd, Antonio Dr, Jones Ln, Mary Jane Ln, Daylight Dr, Oak Hill Dr, Cherry Hill Dr, Demitrios Way, Eleni Ct, Yanni Ct, Tasos Run, Athena Dr, Hillside Dr, Suburban Dr, Sycamore Dr, Valleyview Dr, Parkway Dr, Crestline Dr, Gaywood Dr, Meadowlark Dr, Hillside Dr, Ashmoor Dr, Harper Pkwy, and Springdale Dr. The map also shows the location of the Village of Avon, the Town of Caledonia, and the Town of Livonia.

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access

-  Town Boundaries
-  State Lands
-  Grants Recieved
-  Grants Applied

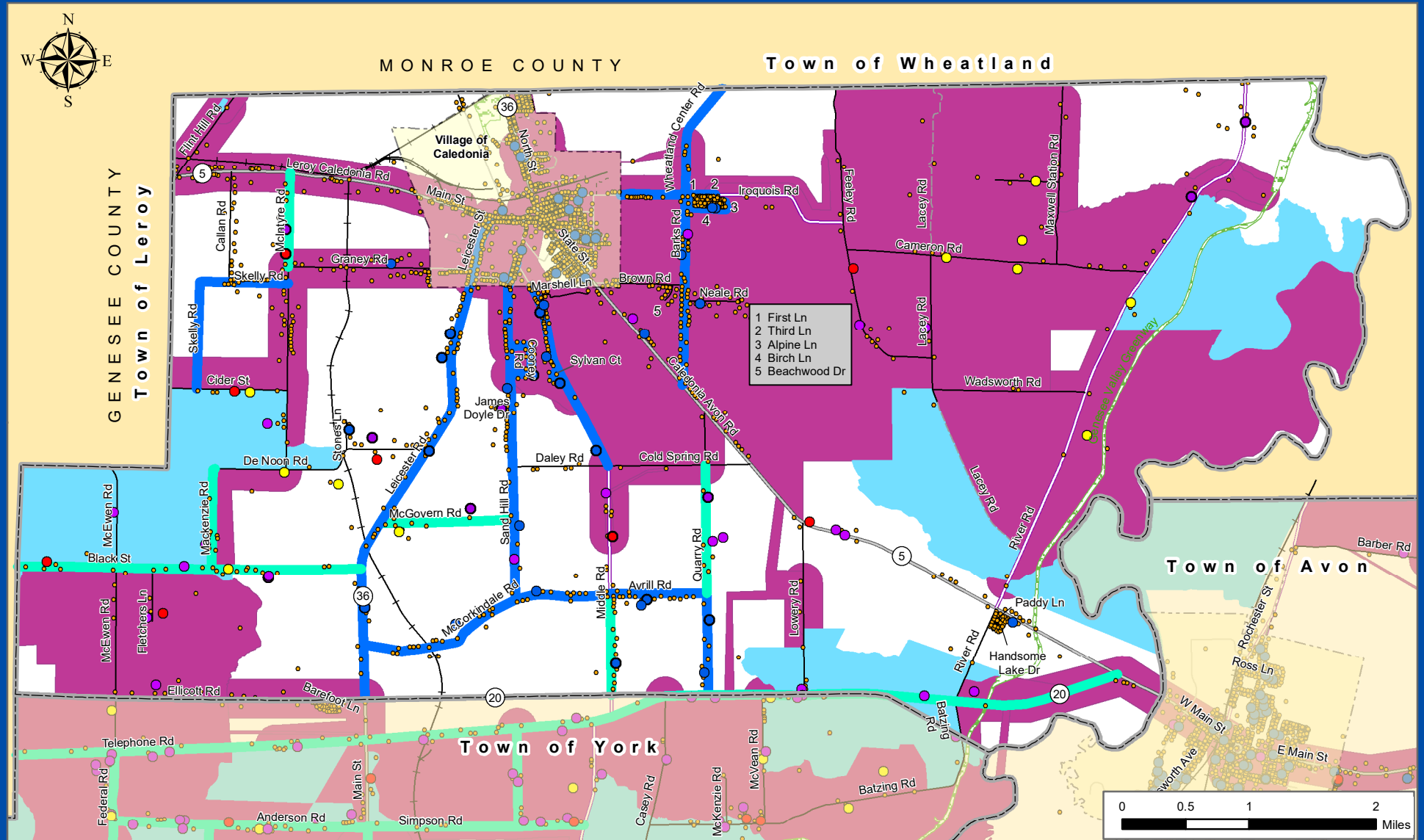
Internet Service Provider (ISP) point data is a combination of public input from the 2022 Municipal Outreach Initiative & the 2019 Broadband Survey.



M:\ARCVIEW\broadband\12. Reconnect 3\T. Avon Maps  
Map created by the Livingston County Planning Department: July 2022



# Town of Caledonia: Community Input Broadband Analysis



## Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Grants Recieved
- Grants Applied
- State Lands

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Map created by the Livingston County Planning Department: July 2022



# Town of Conesus

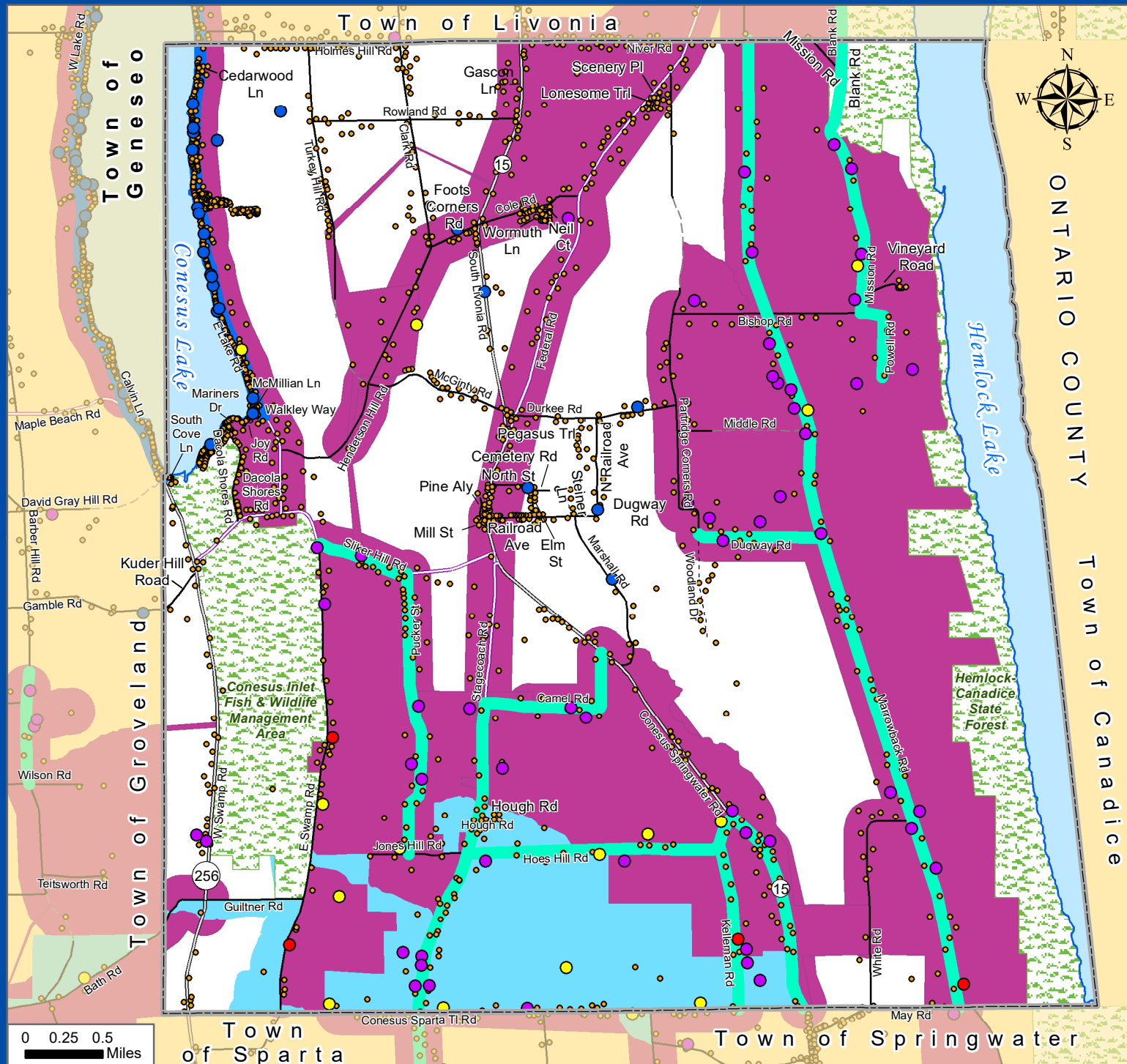
## Community Input Broadband Analysis Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Town Boundary
- State Lands
- Grants Recieved
- Grants Applied

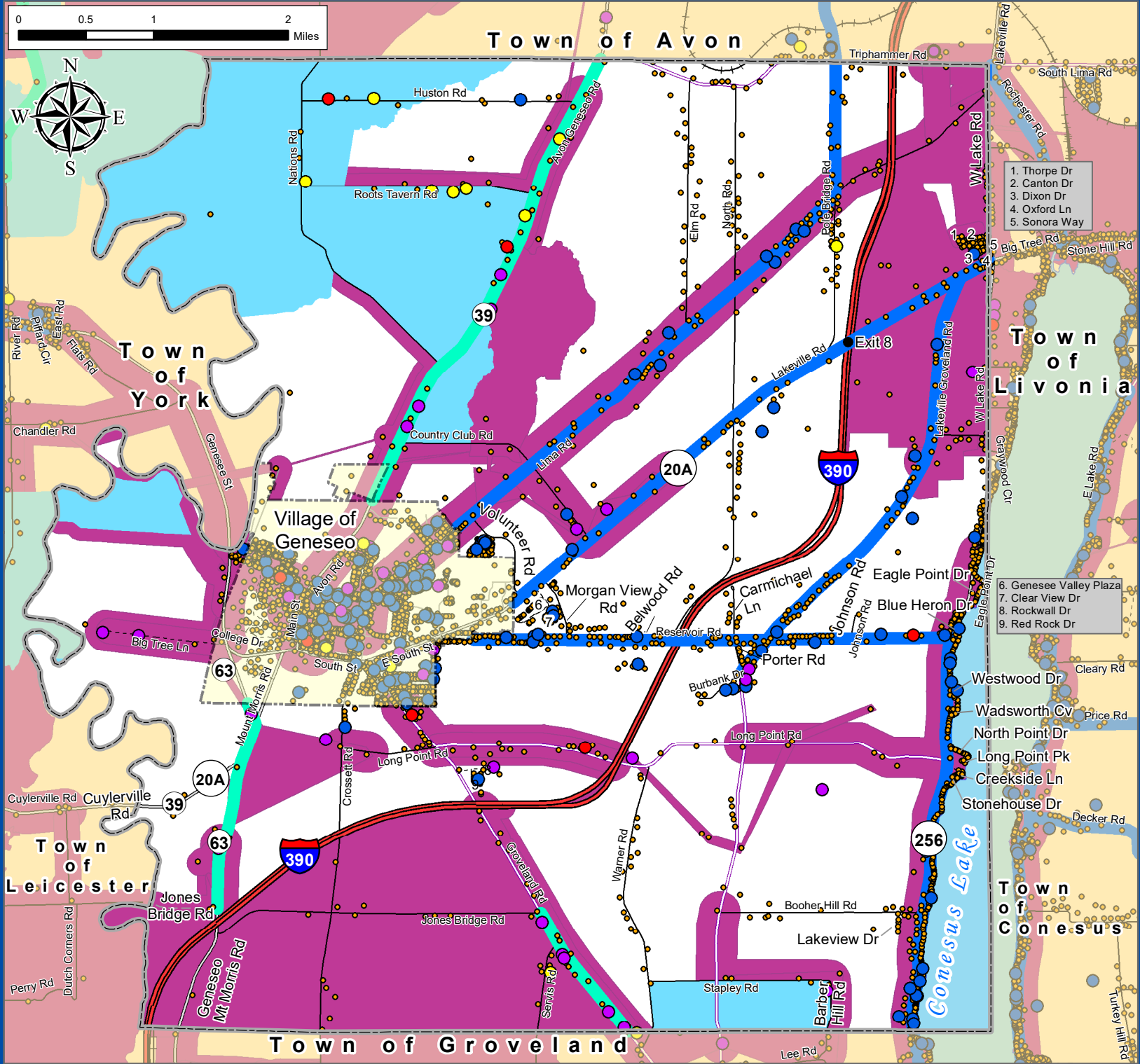
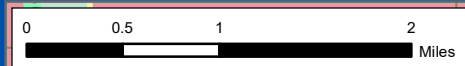
Internet Service Provider (ISP) point data is a combination of public input from the 2022 Municipal Outreach Initiative & the 2019 Broadband Survey.



Map prepared by Livingston County Planning Department: July 2022







# Town of Geneseo Community Input Broadband Analysis

## Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points

- Frontier
- Spectrum
- Town Boundary
- Village Boundary
- Lake
- State Land
- Grants Recieved
- Grants Applied

Internet Service Provider (ISP) point data is a combination of public input from the 2022 Municipal Outreach Initiative & the 2019 Broadband Survey.



Map prepared by the  
Livingston County Planning Department  
July 2022



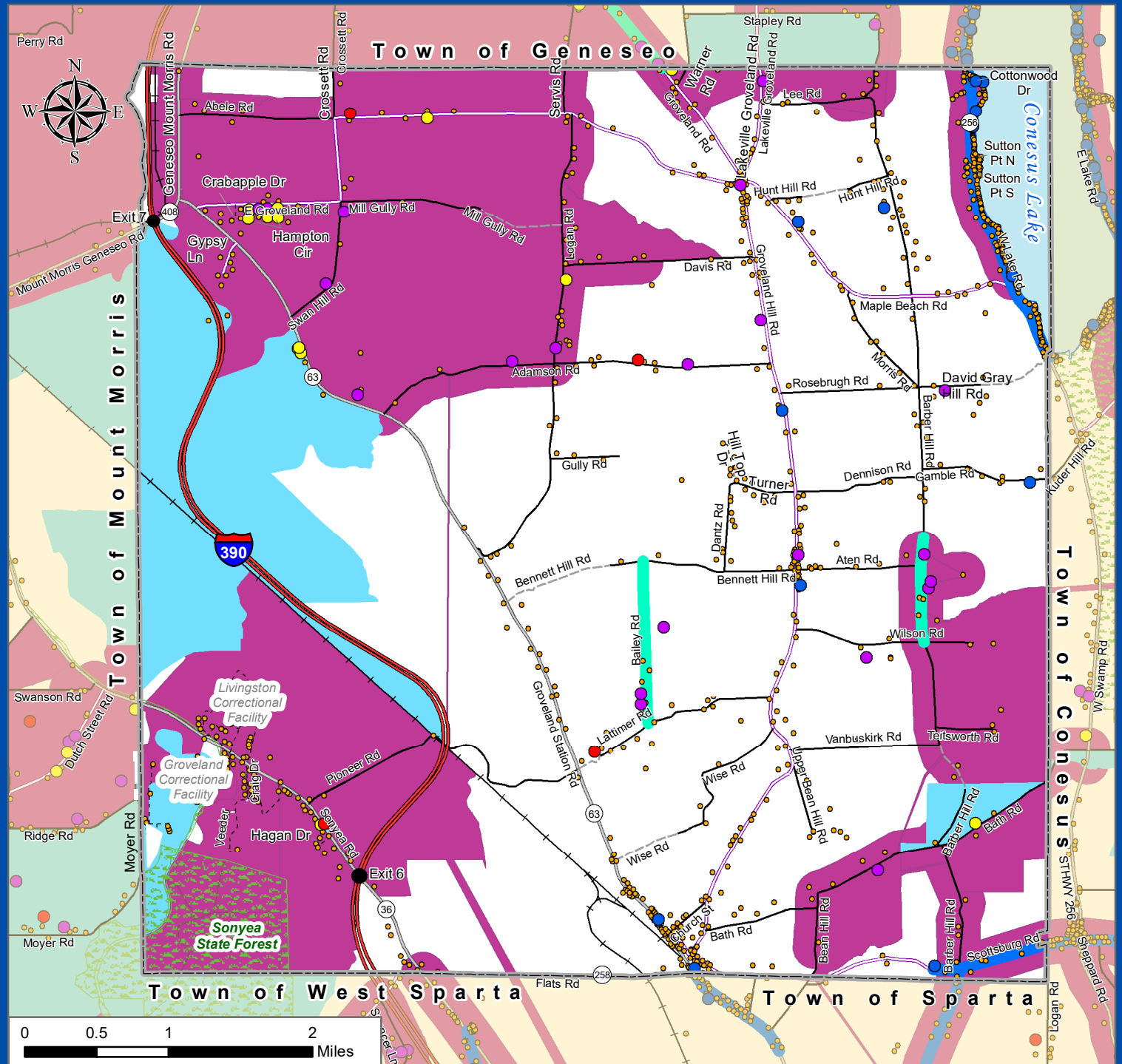
# Town of Groveland Community Input Broadband Analysis Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Town Boundary
- Lake
- State Land
- Grants Recieved
- Grants Applied

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Map created by the Livingston County Planning Department: July 2022





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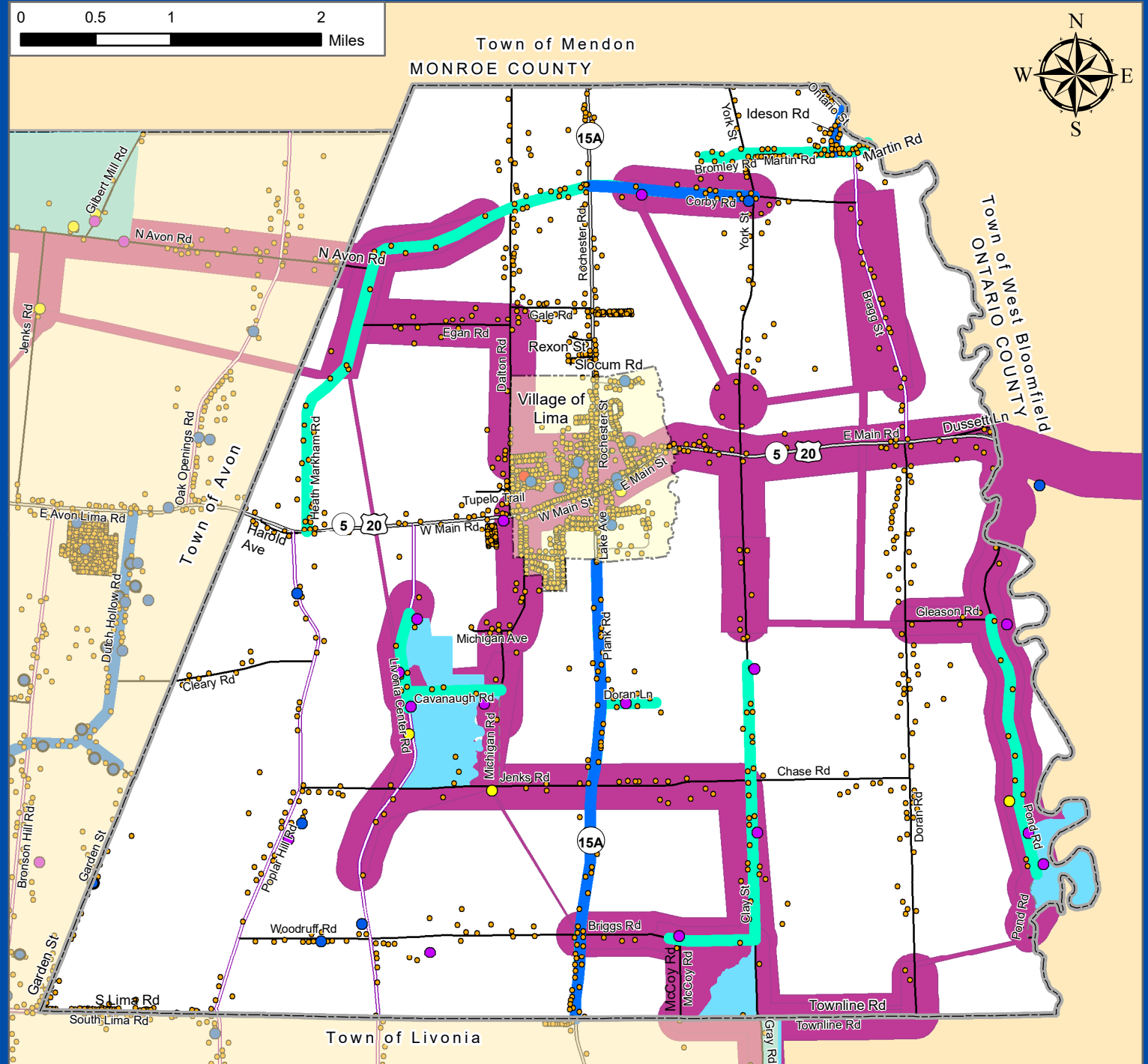
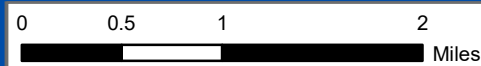
# Town of Lima Community Input Broadband Analysis Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Town Boundaries
- Village Boundaries
- Grants Recieved
- Grants

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Map created by the Livingston County Planning Department: July 2022





# Town of Livonia: Community Input Broadband Analysis

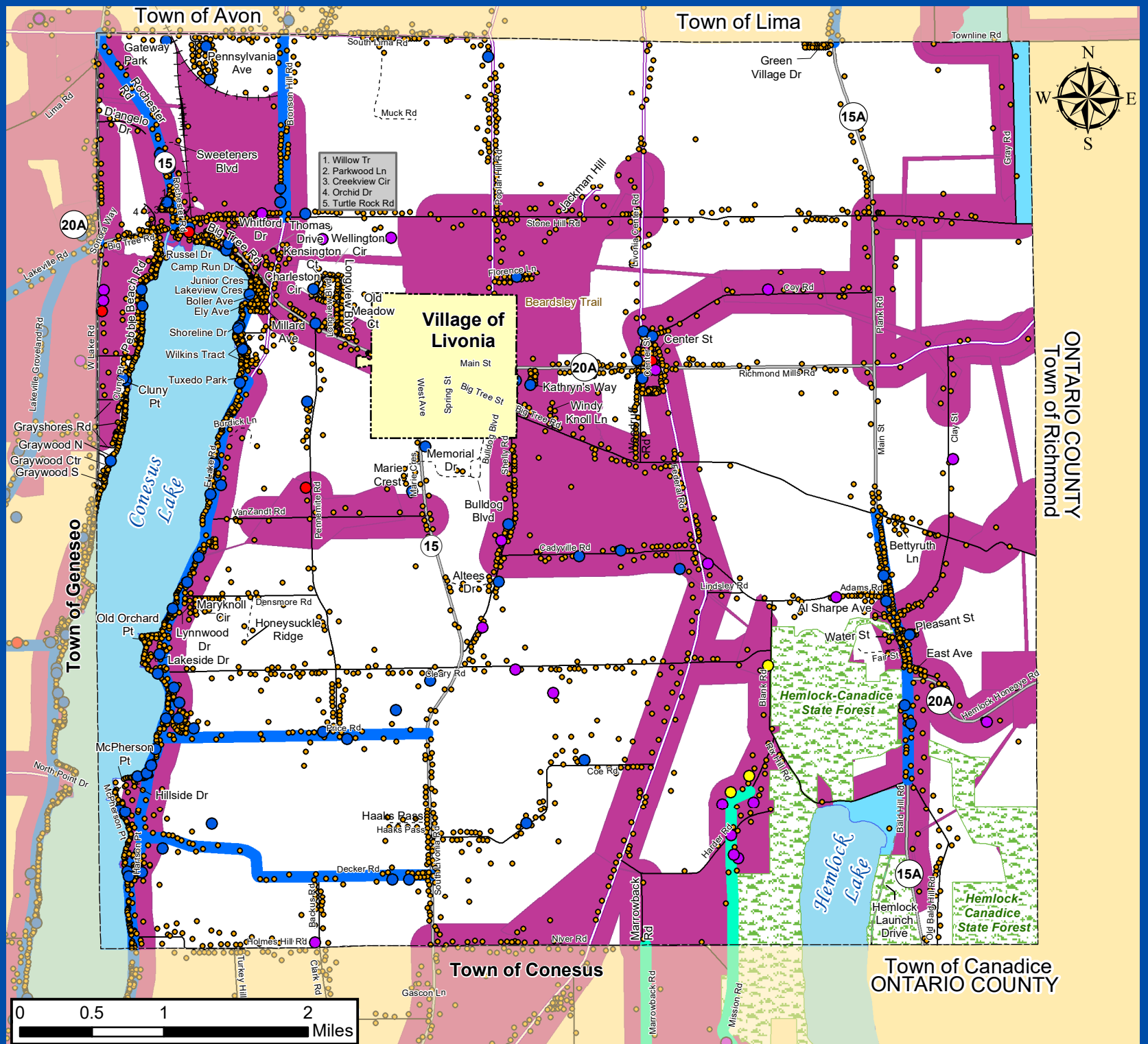
## Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Town Boundary
- Village Boundary
- State Lands
- Lakes
- Grants Recieved
- Grants Applied

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Map created by the Livingston County Planning Department: July 2022





# Town of Mt. Morris: Municipal Broadband Analysis

## Legend

- Charter Spectrum Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Town Boundary
- Village Boundary
- State Lands
- Grants Recieved
- Grants Applied



Map created by the Livingston County Planning Department: March 2022



**WYOMING COUNTY**

**Town of Castile**

**Town of Portage**

**Town of Leicester**

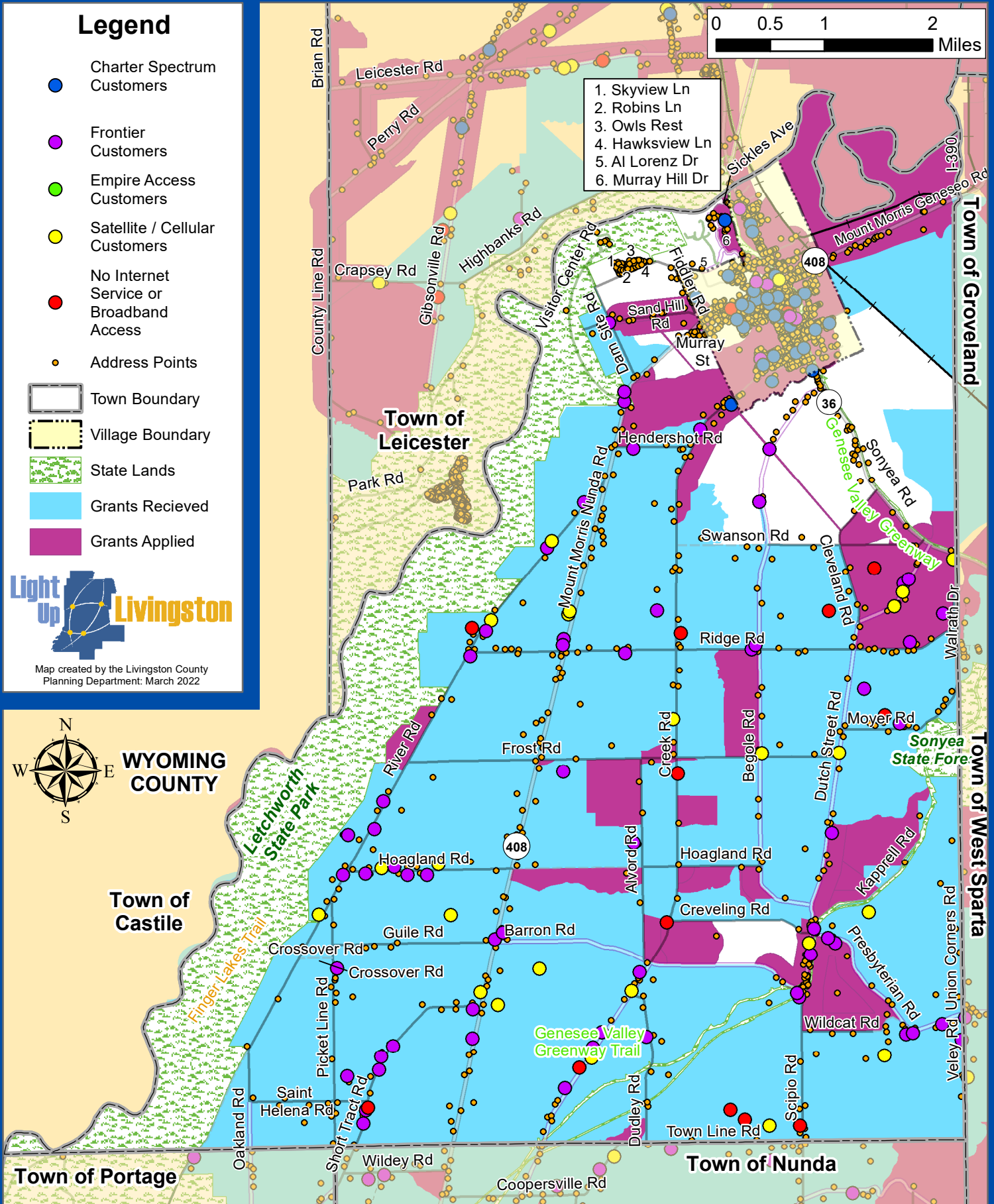
**Town of Nunda**

**Town of Groveland**

**Town of West Sparta**

0 0.5 1 2 Miles

1. Skyview Ln
2. Robins Ln
3. Owls Rest
4. Hawkview Ln
5. Al Lorenz Dr
6. Murray Hill Dr



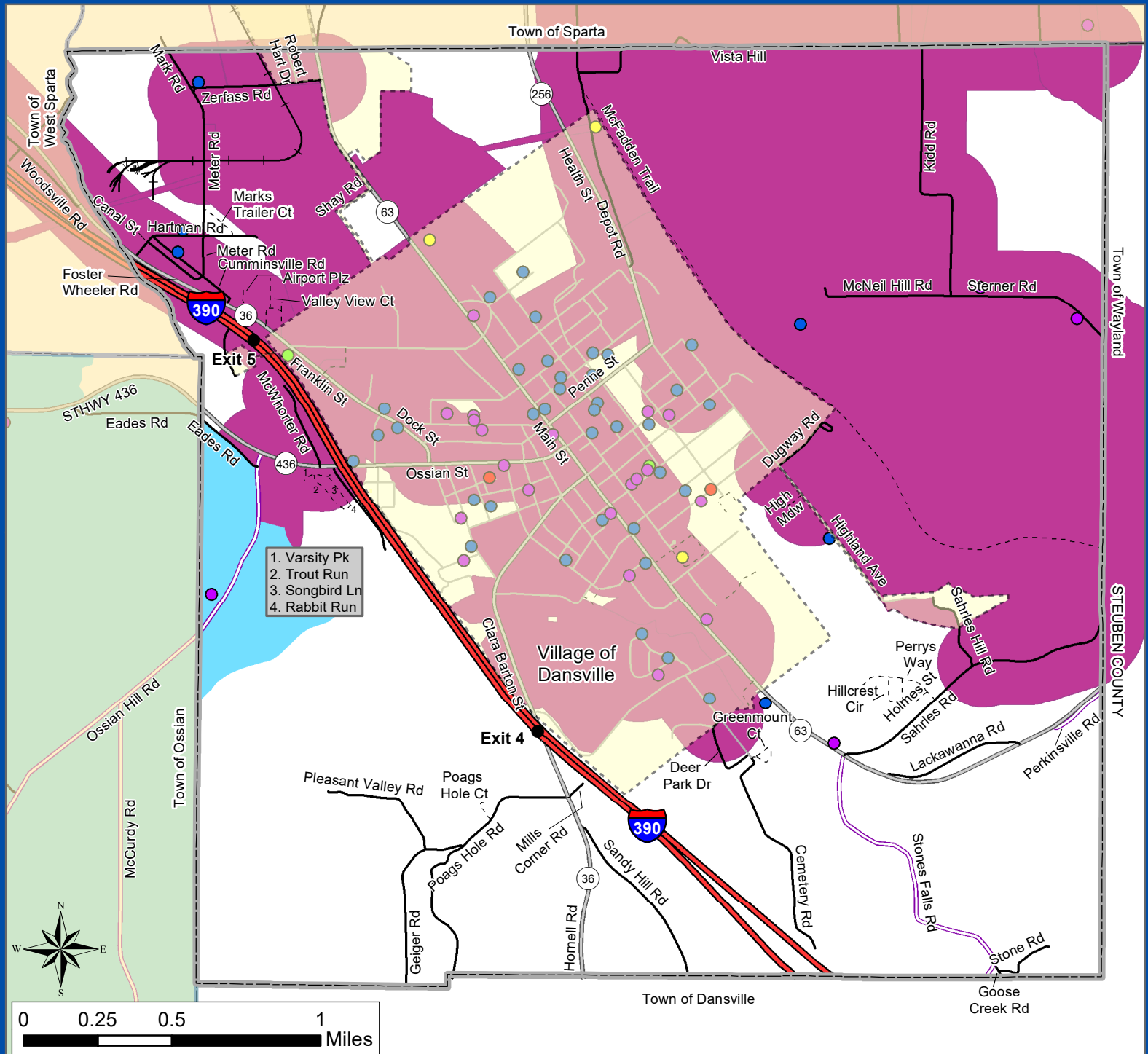


# Town of North Dansville Municipal Broadband Analysis

- Charter Spectrum Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Grants Recieved
- Grants Applied
- ▭ Town Boundary
- ▭ Village Boundary



Map created by the Livingston County Planning Department: May 2022  
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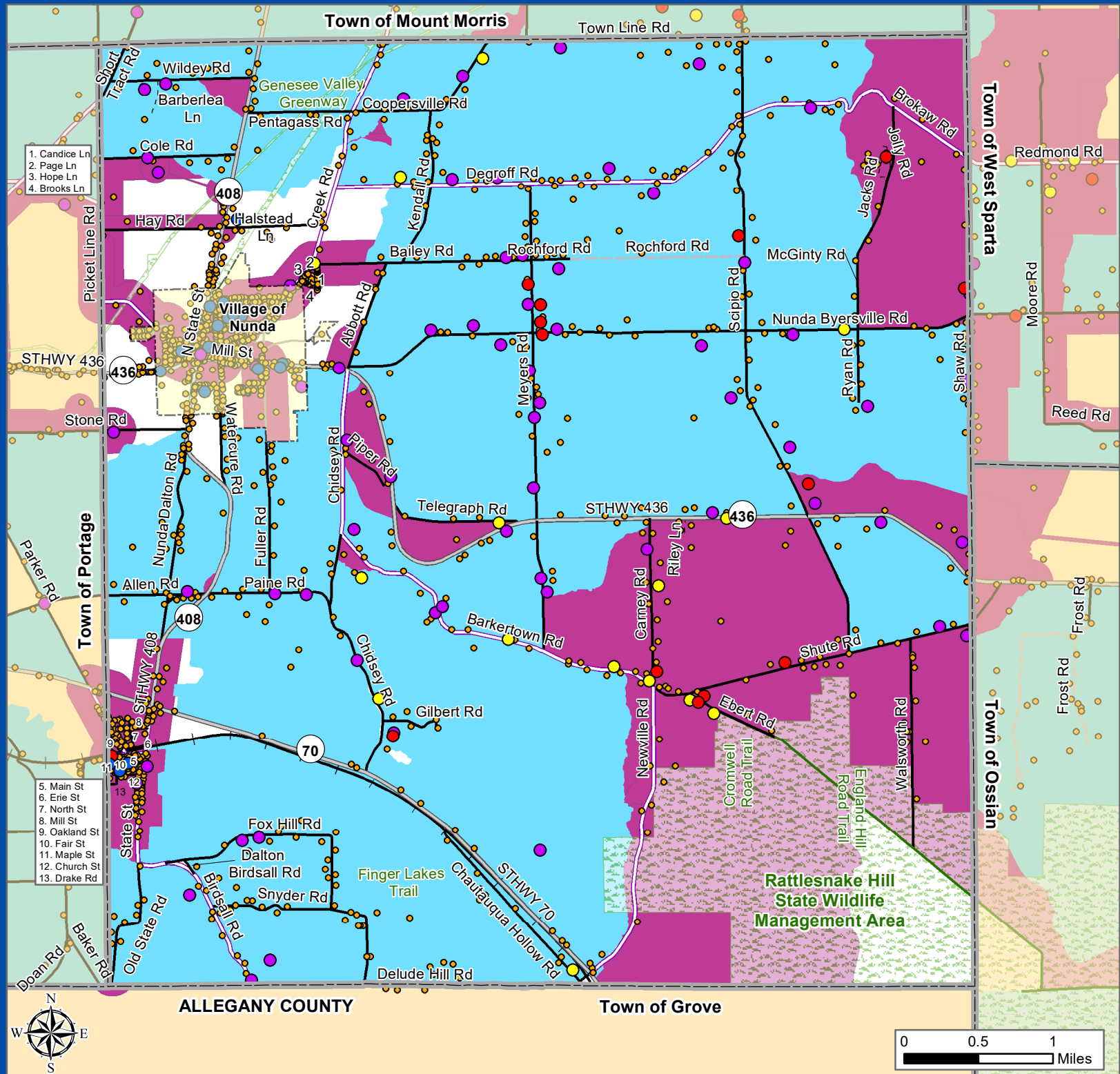




# Town of Nunda: Municipal Broadband Analysis

## Legend

- Charter Spectrum Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Town Boundary
- Village Boundary
- State Land
- Grants Recieved
- Grants Applied





# Town of Ossian Community Input Broadband Analysis

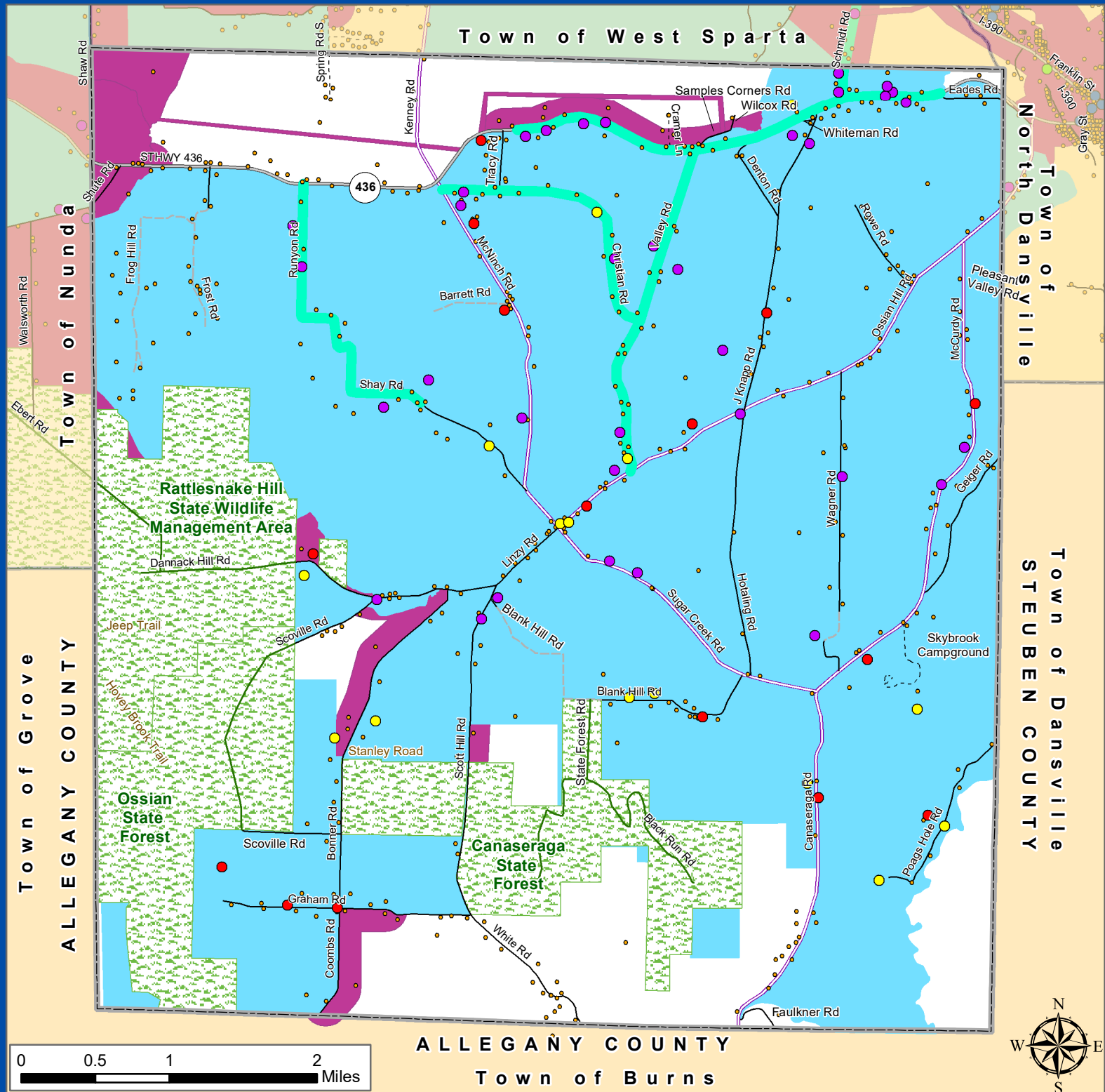
- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- State Land
- Grants Recieved
- Grants Applied
- Town Boundary

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Map created by the Livingston County Planning Department: July 2022

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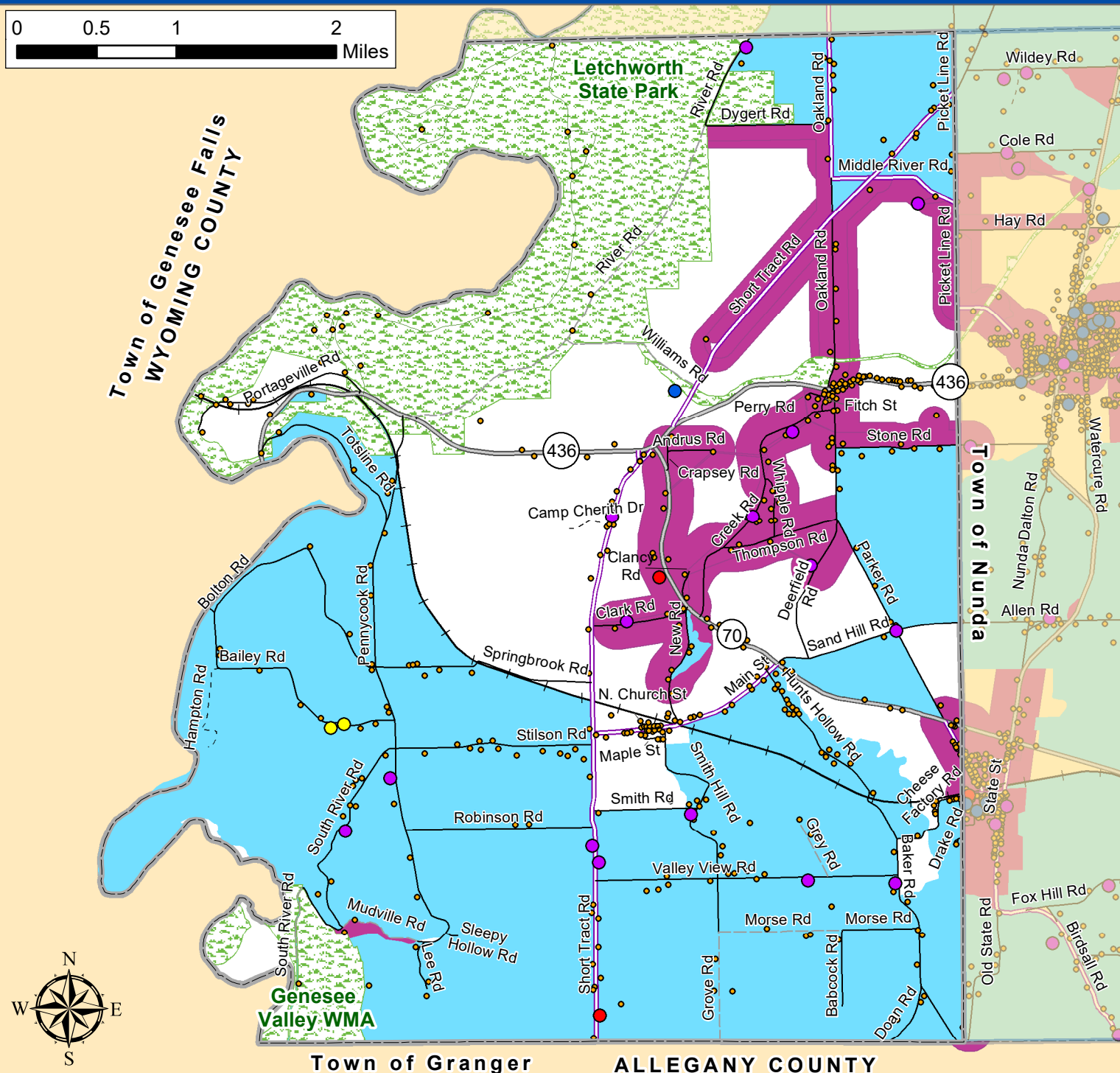


# Town of Portage Municipal Broadband Analysis

- Charter Spectrum Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
-  State Land
-  Town Boundary



Map created by the Livingston County  
Planning Department: May 2022  
M:\ARCVIEW\broadband\13. Town Maps\  
T. Portage





# Town of Sparta: Community Input Broadband Analysis

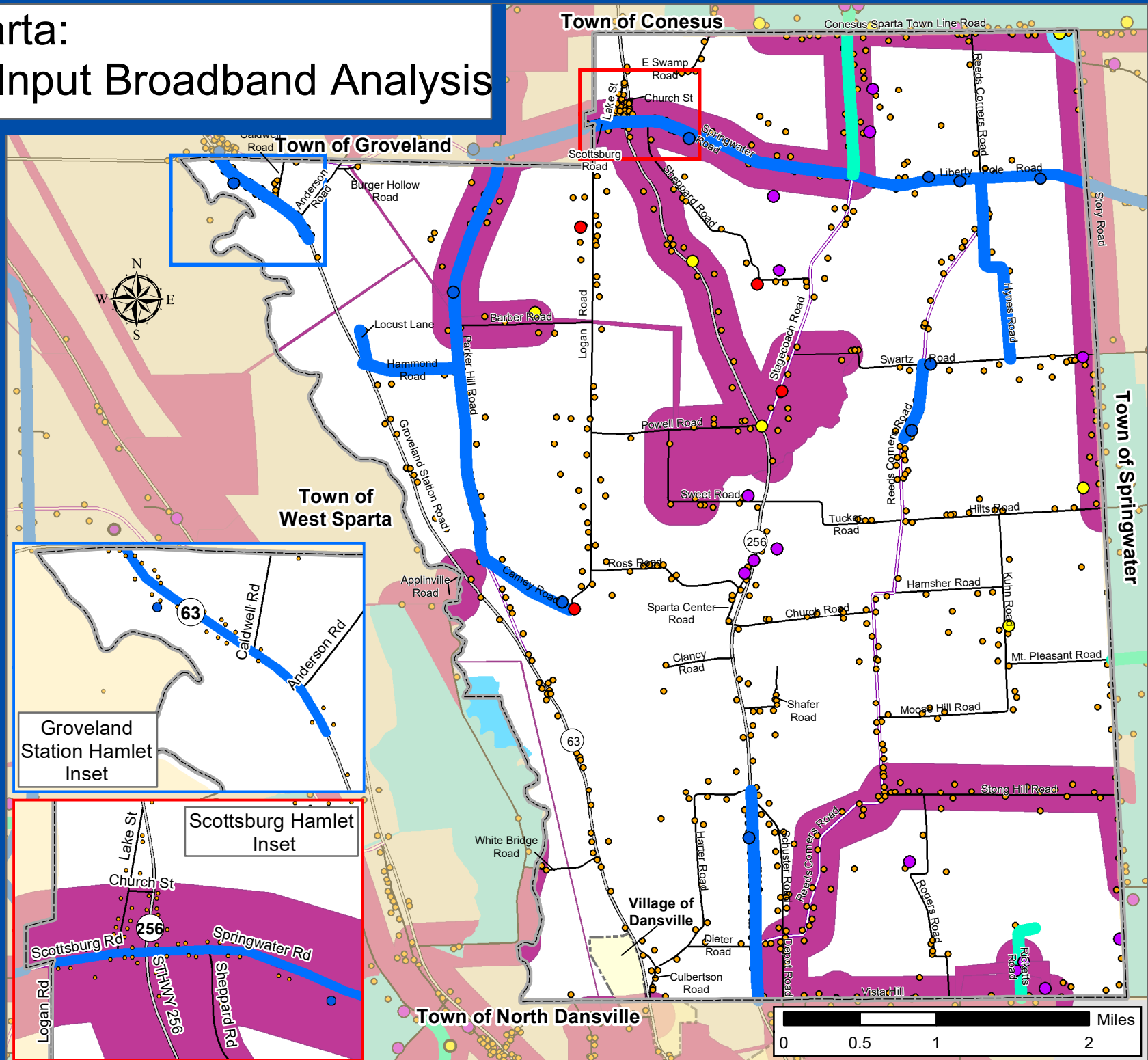
## Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- Town Boundary
- Lake
- State Land
- Grants Recieved
- Grants Applied

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Map created by the Livingston County Planning Department: July 2022





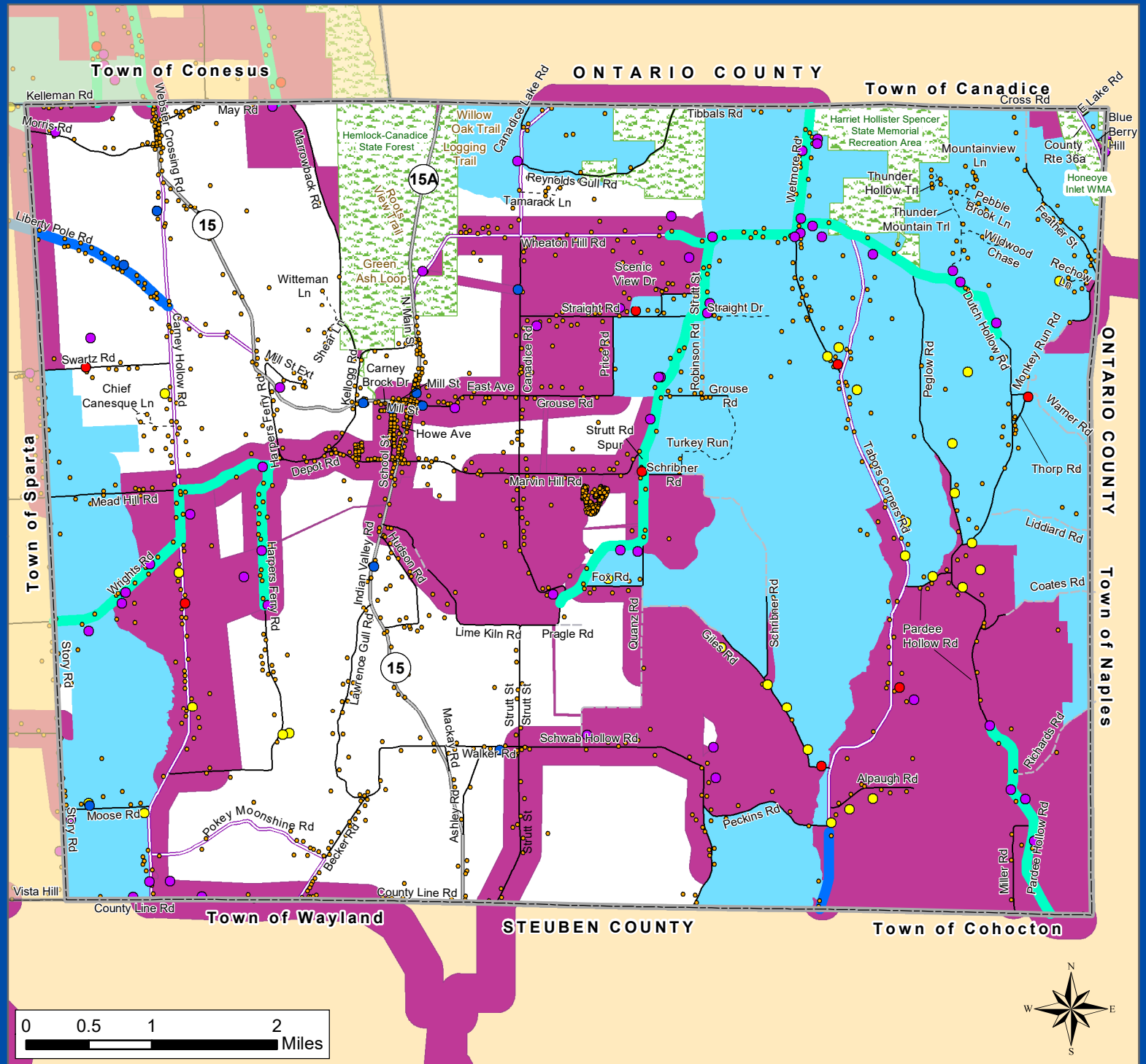
# Town of Springwater Community Input Broadband Analysis

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points
- Frontier
- Spectrum
- State Land
- Grants Recieved
- Grants Applied
- Town Boundary

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Map created by the Livingston County Planning Department: July 2022  
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# Town of West Sparta Community Input Broadband Analysis

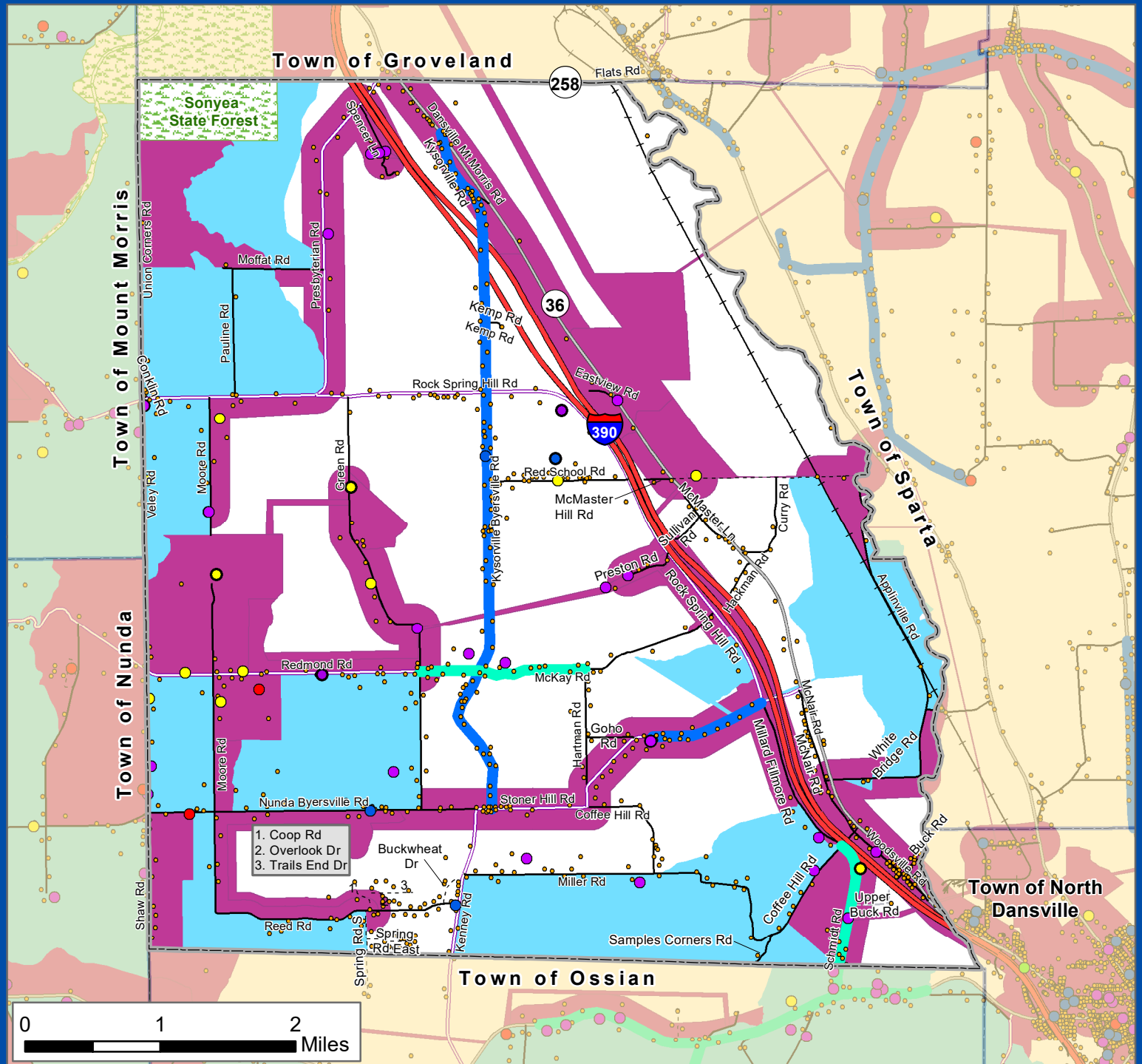
- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points

- Frontier
- Spectrum
- Town Boundary
- State Land
- Grants Recieved
- Grants Applied

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Map created by the Livingston County Planning Department: July 2022  
M:\ARCVIEW\broadband\13. Town Maps\T. West Sparta



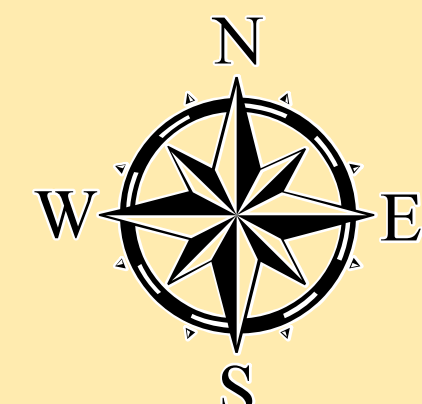


GENESEE COUNTY

Town of Covington

WYOMING COUNTY

0 0.25 0.5 1 Miles



1. Barefoot Ln
2. Foote Dr
3. James Way

Town of Caledonia

Town of Pavilion

Linwood

Town of Avon

Town of Geneseo

Town of Leicester

# Town of York Community Input Broadband Analysis

## Legend

- Charter Customers
- Frontier Customers
- Empire Access Customers
- Satellite / Cellular Customers
- No Internet Service or Broadband Access
- Address Points

- Frontier
- Spectrum
- Town Boundary
- State Lands
- Grants Received
- Grants Applied



Internet Service Provider (ISP)  
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Municipal Outreach Initiative  
& the 2019 Broadband Survey.

Map prepared by the Livingston  
County Planning Department:  
July 2022  
M:\ARCVIEW\broadband\12. Reconnect 3IT. York Maps



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# Conclusion

The information collected through this *Municipal Broadband Analysis* represents the most recent information about service providers, speeds and internet availability in Livingston County. The County staff continues to craft this dataset to maintain accuracy.

Funding opportunities frequently become available from federal, State and private sources. The efforts completed in this work will inform which portions of Livingston County are eligible for grants. Through the Infrastructure Investment and Jobs Act, the NTIA will have numerous grants available to state and local government, private internet service providers or public private partnerships.

New York State, through their recently announced *ConnectALL Initiative* plans to expand affordable broadband and develop the state's digital infrastructure. NYS will be offering grants to fund local planning, engineering and construction of broadband infrastructure. The efforts of this *Livingston County Municipal Broadband Analysis* will be provided to State officials.

The Livingston County Board of Supervisors and County Administrator, Ian M. Coyle remain committed to the goal of Light Up Livingston, to provide the opportunity for access to high-speed, fiber-optic internet to every address. Through a targeted approach and leveraging available funds this monumental aim will be achieved.

