

Request for Proposal

for

Broadband Development Partnership in

LIVINGSTON COUNTY, NY



January 2020

HUNT 3258-001

Prepared by:
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LIVINGSTON COUNTY
BROADBAND DEVELOPMENT PARTNERSHIP
REQUEST FOR PROPOSALS

Interested and qualified firms can submit their Proposals to:

Livingston County Planning Department
6 Court Street
Room 305
Geneseo, NY 14454

All proposals must be received by the Planning Department no later than 3:00 p.m. on February 7, 2020. (Proposals received after this date will not be accepted. Proposals can be delivered to the address above to the attention of Megan Crowe, MCrowe@co.livingston.ny.us)

Questions regarding this RFP can be submitted to Adam Monell with Hunt Engineers, Architects and Land Surveyors via email, voicemail or written form no later than 5:00 p.m. on January 29, 2020. Responses to any Requests for Information (RFIs) will be provided no later February 3rd, 2020 at 5:00 p.m.

Livingston County will receive proposals for:
Broadband Development Partnership in Livingston County, NY.

Interested and qualified Internet Service Providers (ISP) can receive a copy of the official Request for Proposals (RFP) by contacting Adam Monell at (607) 358-1000 or monella@hunt-eas.com.

Proposal envelopes shall clearly indicate a “Proposal for Broadband Development Partnership in Livingston County” and the name of the company submitting the proposal.

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Executive Summary:

Livingston County is seeking proposals for a partnership to develop broadband internet services for its residents and businesses. In surveying the current broadband landscape, the County has identified 1 of the main challenges as the availability of High-Speed Broadband in rural areas of the County. To overcome this challenge, Livingston County seeks to partner with an established Internet Service Provider (ISP) to offer state-of-the-art Gigabit Speed service to residents and businesses that currently lack access to sufficient broadband technology. Livingston County is looking to reach an agreement to financially support the successful ISP by applying for grant funding on behalf of the ISP and provide enough support to make the project financially feasible. As a response to this RFP, the ISP will be asked to propose the total cost of the project based on the geographic area defined in the mapping. Based on the total funding and potential USDA ReConnect funding available, the ISP will be asked to propose what funds will be needed from the County, what amount of those funds can be worked into a revenue share agreement, and what amount of those funds the ISP intends to provide. The goal of this effort is to enable the private broadband market to expand and thrive in Livingston County, while collaborating to best utilize available public grants.

Background

- Livingston County is home to approximately 65,000 residents covering 644 square miles of land in the Genesee Finger Lakes Region. Within the County, there are seventeen towns and nine villages. Dominant economic sectors are agricultural related operations, education and healthcare. Similar to other rural communities in New York State, many of Livingston County's municipalities lack affordable, dependent, high-speed broadband internet. As the need for internet continues to rise, the Livingston County Board of Supervisors recognize that expanding high-speed broadband services is vital to economic growth and quality of life.
- In 2018, Livingston County finalized an *Inventory Atlas of Broadband Assets* which contains information regarding vertical assets, public and emergency facilities, commercial and industrial growth areas, downtown districts and other vital County data to be utilized in developing a feasibility study for an expanded broadband internet network.
- In August 2019, Livingston County hired an independent consultant (Hunt Engineers, Architects, Land Surveyors & Landscape Architect DPC) to evaluate the broadband landscape in the County, map ReConnect eligible service areas, conduct speed tests and develop a *Preliminary Engineering Report/ Feasibility Study*. This document includes project needs, alternates considered, recommendations and project costs for broadband expansion. *The Preliminary Engineering Report/Feasibility Study* is included as **Exhibit E** in this RFP.
- In December 2019, the County opened an online survey to better understand broadband needs. The survey results will help to inform future discussions as the county considers advancing the expansion of broadband access into the community. Preliminary results demonstrate the need and desire for additional service offerings in the County.

Evaluation Criteria

- Total Project Cost
- ISP Upfront Investment
- Revenue Share
- Proximity to the County
- Experience
- Support Record

Project contacts

Megan Crowe, Senior Planner

Livingston County Planning Department

6 Court Street

Room 305

Geneseo, NY 14454

e | mcrowe@co.livingston.ny.us

p | 585.243.7565

Adam Monell, Technology Consultant

100 Hunt Center

Horseheads, New York 14845

e | monella@hunt-eas.com

p | 607.358.1000

Project Scope and Deliverables:

1. The scope of this RFP is to build a Fiber-to-the-Premises (FTTX) broadband access network in the defined service areas over a 6-year period (Construction not to exceed the 6-year period). Associated with this buildout, the successful ISP will begin providing gigabit level service to businesses and residents. The focus of this RFP is broadband services ONLY, the successful ISP will not be prohibited from providing additional services like cable or phone; offering these services in the proposed funded service areas will be considered upon evaluation of proposals. Providing these services, however, must not interfere with the requirements of the RFP and no funding can be granted to support the additional services.
2. Funding – Livingston County is seeking USDA ReConnect funding for the project and will provide all grant writing services to the successful respondent. The ISP will be the lead applicant on the application and will own the infrastructure in perpetuity per the ReConnect requirements, further information regarding grant requirements, visit:

<https://www.govinfo.gov/content/pkg/FR-2019-12-12/pdf/2019-26522.pdf>.

Livingston County will also be a participant on the application, but the ISP must take the lead. This Grant has no minimum requirement and will fund up to \$25 million per project. The required matching funds for the applicant is 25% of the total project cost with the remaining 75% being funded by the grant. The RFP seeks proposals from ISPs in the form of a breakdown of the shared project costs, allowing the ISP to propose an offer that is financially feasible for their organization. Livingston County will then evaluate all offers and select the most advantageous for the County.

- County Funding – Set this number.
- ISP Upfront Funding – Proposed by ISP on bid form.
- Revenue Share Proposal – Proposed by ISP on bid form.
- For more information about USDA ReConnect, please visit <https://www.usda.gov/reconnect>.
- For grant information please see the USDA [Funding Opportunity Announcement \(FOA\)](#).

Example:

- Estimated Project Cost
- Rough Project Cost: \$11,000,000
- USDA ReConnect Funds: \$8,250,000
- Local Share Funds: \$2,750,000
- County Investment Over 5 Years: \$1,000,000

- ISP Investment Over 5 Years: \$750,000
 - Revenue Share Agreement: Repayment of \$1,000,000 over a defined term or per user revenue share that will be collected until the total revenue share amount has been met.
3. Service Area – **See Exhibit D** for service area map. Electronic shape files can be provided upon request. Contact Adam Monell at Hunt EAS, monella@hunt-eas.com.
 4. Required Infrastructure Fiber-to-the-Premises (FTTX) – Livingston County has determined that any investment in broadband should be one that considers the longevity of the technology and the ability of that technology to adapt to future advancements. It was determined that a FTTX would provide both a medium that can support current state of the art bandwidth deployments as well as future applications. Livingston County also understands the challenges of getting fiber to rural areas and **believes that partnering with an ISP to provide the level of financial support required to reach rural areas will make the project feasible for both parties.**

The technology deployed must be wireline and a minimum GPON Standard or verifiable equivalent must be designed to the household. An NG-PON2 capable system or equivalent must be designed to the business. All designs will be in accordance with AHJ standards, IEEE, NEC, NESC, TIA-568, TIA-569, TIA-606, TIA-607, ITU-T G986, ITU-T G989, and BICSI standards.

5. Service Offerings – To provide flexibility to the service providers, this RFP requests that the ISP list the internet service offerings that will be offered to all residents and businesses for the proposed funded service areas. However, to ensure that residents are brought up to the County’s current broadband standard of Gigabit service, the ISP must follow the following guidelines for residential service offerings:
 - Must offer a 1Gbps download by 400 Mbps upload internet service offering.
 - The minimum internet service offering must be 100 Mbps download by 80 Mbps upload or greater.
 - Technical support assets within 90 miles of service area for customer support needs.
 - The estimated cost of service must be provided for all levels of service being provided.
 - Revenue share proposal shall not result in a customer surcharge. Service offering cost shall be consistent with other areas the successful ISP serves.
6. Project Deployment Schedule – If successful in the grant application, 2020 will be a gap year in the project with the deployment of the network phased over the next 5 years (2021 - 2025). At the end of that 5-year period, the proposed broadband internet services will be available in all proposed service areas. The successful ISP will be required to provide a 5-year phasing plan and

take-rate projections for the grant application and as part of this RFP must certify that this information will be provided to support the USDA ReConnect application. Responses can have an accelerated schedule and will be considered by the county when awarding the partnership.

Preliminary Schedule

January 17, 2020	RFP released.
January 29, 2020	Questions regarding RFP due by 5pm.
February 3, 2020	Responses for any requests for information will be provided by 5pm.
February 7, 2020	Proposal Submissions due by 3pm.
February 11&12, 2020	Interviews at Livingston County Government Complex in Geneseo.
March 16, 2020	ReConnect Application due to USDA by 6pm.

7. County Survey – Livingston County recently conducted a county-wide survey to better understand the current state of broadband access. A survey was mailed to residents in areas that were identified as potentially under 10Mbps download by 3 Mbps upload speeds. The County also posted a link to an online survey and placed an ad in the local Penny Saver that was available to everyone in Livingston County. They received excellent feedback giving a good snapshot of the County.
- There were over 1600 responses to the survey including nearly 1500 residents and over 100 business from across the County.
 - Over 90% of the respondents currently subscribe to internet service.
 - Frontier and Spectrum make up 40 and 38%, respectively, of the local subscriber share with satellite services and mobile hotspots making up the rest.
 - 27% of those that responded pay \$0-\$50, 50% pay \$51-\$100, and about %15 pay over \$100 every month for service.
 - 55% of the respondents receive service that is below the FCC’s standard of 25Mbps download speed and only about 10% receive over the 100 Mbps that the County has set for a minimum.
 - When asked, “What services do you need from an Internet Service Provider?”, almost all respondents said internet, 25% said they would desire to add telephone service and 38% said they would desire to add cable service.
 - 90% of the respondents stated that they consider high-speed internet service to be essential public infrastructure for the community much like water, sewer and electricity.
 - Over 80% think that the County government should play a financial role in extending high-speed internet availability. **See Exhibit G.**
 - When asked what they would be willing to pay for internet service each month, 83% said they would be willing to pay %50-%100 per month and 12% said they would be willing to pay more than \$100 per month.

Proposal Requirements and Materials:

1. Proposals for the “Livingston County Broadband Development Partnership” will be accepted at the **Livingston County Planning Department, 6 Court Street, Room 305, Geneseo, NY 14454 until 3 p.m. on February 7, 2020**. No fax or email submissions will be accepted. The submission must include 1 paper copy and 1 electronic copy (on a USB drive) of the entire package. The outside of the proposal package should be clearly marked “Livingston County Broadband Development Partnership” and the name of the company submitting the proposal. The package should contain 1 envelope, as follows:
 - a. A Cover Letter introducing the team project manager, any relevant knowledge of the project area, and a brief explanation why your firm is qualified to perform the desired project tasks.
 - b. Firm Profile detailing history, corporate demographics (firm founding date/size/number of staff/office locations).
 - c. Organizational chart with staff responsibilities and resumes of key staff members with relevant projects highlighted including subconsultants).
 - d. Provide a map of the firm’s existing coverage areas as of the date this RFP is issued.
 - e. Project approach – including proposed schedule, stakeholder participation process, proposed visits to Study Area.
 - f. Three references, including contact names and telephone number and/or email address.
 - g. Availability to meet with the Consultant Selection Committee for an interview on February 11 and February 12, 2020.
 - h. Target schedule, including time frames for the client’s responsibilities. Schedule for Task Deliverables shall be provided.
 - i. Budget for the entire scope, and where applicable, disaggregated by component. Payments will be tied to Task deliverables that are considered complete and acceptable by the County. Include:
 - Proposed Investment from the ISP
 - Proposed Revenue Share
 - Proposed Investment from the County
 - j. Billing rate schedule.
 - k. Approximate budget for travel and other reimbursable expenses.
 - l. Signed Proposal
 - m. Completed copy of **Exhibits ABC, & F**

2. Interview Process

Proposers that are shortlisted will be subject to an interview with key principals and critical project participants.

3. Upon Award

- I. Provide financials (per USDA Re-Connect) for the past year (2019) including:
 - a. Balance Sheet
 - b. Revenue
 - c. Income Statement
- II. Total Estimated Construction Costs –The ISP will be required to break down construction costs per the 5-year construction plan. The project cost estimate must include all project related costs including, but not limited to:
 - a. Planning the project
 - b. Surveying & permitting application costs
 - c. Designing the FTTX fiber-optic cable plant
 - d. Procure make-ready cost from all pole owners
 - e. Construction cost excluding contingencies and incidentals
 - f. Closeout

Instructions to Proposers:

1. **Proposal Conditions:** All proposals submitted must be firm for a minimum of thirty (30) days from opening. Livingston County may require the full thirty (30) days for review and award of the Proposal. All contractors must ensure that their employees, candidates for employment and applicants for employment are not discriminated against because of their race, color, creed, sex, age or national origin. The Board of Supervisors reserves the right to refuse any or all proposals, is not necessarily obligated to accept the low Proposal and waives all irregularities in the process. The Proposer is expected to comply with all specifications, terms, conditions, and instructions contained in this RFP. Failure to do so shall be cause for rejection of the submitted Proposal. The County will not be responsible for any costs incurred by the Proposer in preparing or presenting their Proposal. Any exceptions taken to the terms and conditions of this RFP shall be clearly identified. If no exceptions are listed, the County will conclude that the Proposal will meet, in every detail, the conditions stipulated in this RFP.

2. **Non-Collusion**

The firm, by signing the submittal, does hereby warrant and represent that any ensuing agreement has not been solicited, secured or prepared directly or indirectly, in a manner contrary to the laws of the State of New York and Livingston County, and that said laws have not been violated and shall not be violated as they relate to the procurement or the performance of the agreement by any conduct, including the paying or the giving of any fee, commission, compensation, gift, gratuity or consideration of any kind, directly or indirectly, to any County employee, officer or official. **See Exhibit F.**

3. **Conflicts of Interest**

All firms must disclose with their qualifications the name of any officer, director or agent who is also an employee of Livingston County. Further, all firms must disclose the name of any County employee who owns, directly or indirectly, an interest of ten percent or more in the firm or any of its subsidiaries or affiliates. There shall be no conflicts in existence during the term of any contract with the County. The existence of a conflict shall be grounds for termination of a contract.

4. **Certifications of Insurance/Workers' Compensation/Disability:**

The vendor shall provide current Certificates of Insurance, Workman's Compensation/Disability with the proposal as described in the attached **Appendices ABC**. Proof of Workers' Compensation coverage is NOT acceptable when listed on the Insurance Acord. Please see further instructions on Workers' Compensation included with this bid. The Acord Certificate, Workers'

Compensation and Disability forms must all be on file with the County before contract can be awarded.

5. **Compliance with Laws**

By submitting, the firm represents and warrants that it is familiar with all federal, state and local laws and regulations and will conform to said laws and regulations. The preparation of qualifications, selection of Proposers and the award of contracts are subject to the provisions of all federal, state and town laws, rules and regulations.

Minority, Veteran, and Women-owned businesses are encouraged to apply.

The County reserves the right to amend this RFP. The County reserves the right to reject any or all of the qualifications, or any part thereof, submitted in response to this RFP, and reserves the right to waive informalities, if such action is deemed to be in the best interest of the County. The County reserves the right to request additional information from any Proposer. Livingston County will not be answering questions concerning this RFP. All questions will be directed to Hunt Engineers, Architects and Land Surveyors.

End of RFP

APPENDIX A

APPENDIX A

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word "Contractor" herein refers to any party to the contract, other than the County of Livingston (herein after "County").

- I. **NON-ASSIGNMENT CLAUSE.** In accordance with Section 109 of the **General Municipal Law**, this contract may not be assigned by the contractor or its right, title or interest there in assigned, transferred, conveyed, sublet or otherwise disposed of without the previous consent, in writing, of the County and any attempts to assign the contract without the County's written consent are null and void.
- II. **WORKER'S COMPENSATION BENEFITS.** In accordance with Section 108 of the **General Municipal Law**, this contract shall be void and of no force and effect unless the Contractor shall provide and maintain coverage during the life of this contract for the benefit of such employees as are required to be covered by the provisions of the **Workers' Compensation Law**.
- III. **NON-DISCRIMINATION REQUIREMENTS.** In accordance with Article 15 of the **Executive Law** (also known as the **Human Rights Law**) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of age, creed, race, color, sex, sexual orientation, national origin, marital or familial status, disability, military status, domestic violence victim status, criminal or arrest record, or predisposing genetic characteristics. Furthermore, in accordance with Section 220-e of the **Labor Law**, if this is a contract for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this contract shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. If this is a building service contract as defined in Section 230 of the **Labor Law**, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this contract and forfeiture of all moneys due hereunder for a second or subsequent violation.
- IV. **WAGE AND HOURS PROVISIONS.** If this is a public work contract covered by Article 8 of the **Labor Law** or a building service contract covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statute, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law.
- V. **NON-COLLUSIVE BIDDING REQUIREMENT.** In accordance with Section 103-d of the **General Municipal Law**, if this contract was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to the County a non-collusive bidding certification on Contractor's behalf.
- VI. **SET-OFF RIGHTS.** The County shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, the County's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the County with regard to this contract.
- VII. **RECORD-KEEPING REQUIREMENT.** The Contractor shall establish and maintain complete and accurate books, records, documents, accounts and other evidence directly pertinent to performance

under this contract for a period of six (6) years following final payment or the termination of this contract, whichever is later, and any extensions thereto. The County Treasurer or County Administrator or any other person or entity authorized to conduct an examination, as well as the agency or agencies involved in this contract, shall have access to such books, records, documents, accounts and other evidential material during the contract term, extensions thereof and said six (6) year period thereafter for the purposes of inspection, auditing and copying. "Termination of this contract", as used in this clause 10, shall mean the later of completion of the work of the contract or the end date of the term stated in the contract.

- VIII. **MEDICAID/MEDICARE COMPLIANCE.** If this contract involves the provision of services and/or materials, any portion of the cost of which will be billed to the Federal or New York State Medicare or Medicaid health care programs, the Contractor certifies that the Contractor, and all employees, directors, officers and subcontractors of the Contractor, are not "excluded individuals or entities" under Federal and/or New York State Medicare or Medicaid statutes, rules and regulations. The Contractor agrees to screen all employees, directors, officers and subcontractors on a monthly basis at the New York State Office of Medicaid Inspector General website, and any other website required by Federal and/or New York State Medicare or Medicaid statutes, rules and regulations, to determine if any of them are on or have been added to the exclusion list. The Contractor shall promptly notify the County if any employee, director, officer or subcontractor is on or has been added to the exclusion list. The County reserves the right to immediately cancel this contract, at no penalty to the County, if any employee, director, officer or subcontractor is on or has been added to the exclusion list. Furthermore, the Contractor agrees to indemnify the County for any damages or loss incurred by the County based upon the Contractor's failure to comply with these conditions or based upon any false certification under this section.
- IX. **CONFLICTING TERMS.** In the event of a conflict between the terms of the contract (including any and all attachments thereto and amendments thereof) and the terms of this Appendix A, the terms of this Appendix A shall control.
- X. **GOVERNING LAW.** This contract shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.
- XI. **SEXUAL HARASSMENT COMPLIANCE CERTIFICATION.** The Contractor hereby certifies that its organization has implemented a written policy addressing sexual harassment prevention in the workplace and provides annual sexual harassment prevention training to all of its employees. Said policy and training, at a minimum, meets the requirements of Section 201-g of the New York State Labor Law. By signing this Appendix, the Contractor certifies its organization is in full compliance with the mandates of the New York State Sexual Harassment Compliance Law.
- XII. **NO ARBITRATION AND SERVICE OF PROCESS.** Disputes involving this contract, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily authorized) but must, instead, be heard in a court of competent jurisdiction of the State of New York. All actions shall be venued in Livingston County. Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested.
- XIII. **BUDGETED FUNDS.** This contract is executory only to the extent of funds available and the County shall incur no liability beyond the funds appropriated therefore.
- XIV. **APPROVAL OF BOARD OF SUPERVISORS.** This contract is subject to and conditioned upon approval by the Livingston County Board of Supervisors.
- XV. **INCORPORATION.** The main contract contains a paragraph incorporating the terms of this appendix by reference and the parties herein have further signed and dated this appendix.

Livingston County

Contractor
(Signature of Authorized Official Required)

APPENDIX B

APPENDIX B

The parties to the attached contract, license, lease, amendment or other agreement of any kind (hereinafter "the contract" or "this contract") agree to be bound by the following clauses which are hereby made a part of the contract. The word "Contractor" herein refers to any party to the contract, other than the County of Livingston (herein after "County").

- I. The County shall have the right to postpone, suspend, abandon or terminate this contract, and such actions shall in no event be deemed a breach of contract. In the event of any termination, postponement, delay, suspension or abandonment, the Contractor shall deliver to the County all data, reports, plans, or other documentation related to the performance of this contract, including but not limited to guarantees, warranties, as-built plans and shop drawings. In any of these events, the County shall make settlement with the Contractor upon an equitable basis as determined by the County, which shall fix the value of the work which was performed by the Contractor prior to the postponement, suspension, abandonment or termination of this contract. This clause shall not apply to this contract if the contract contains other provisions, exclusive of termination date, applicable to postponement, suspension or termination of the contract.
- II. The Contractor agrees that it will indemnify and save harmless the County from and against all losses from claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against it by reason of and to the extent of any negligent omission or act of the contractor, its agents, employees, or subcontractors in the performance of this contract. This indemnification shall include all costs and disbursements incurred by the County in defending any suit, including attorneys' fees. Furthermore, at the option of the County, the Contractor shall provide defense for and defend all claims, demands and causes of action referred to above, and bear all other costs and expenses related thereto. The Contractor shall not be required to indemnify the County for any damage or loss arising out of the negligence or willful misconduct of the County, its agents or employees.
- III.
 - A. The Contractor warrants that to the best of the contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as herein defined, or that the Contractor has disclosed all such relevant information to the County.
 - B. An organizational conflict of interest exists when the nature of the work to be performed under this contract may, without some restriction on future activities, either result in an unfair competitive advantage to the Contractor or impair the Contractor's objectivity in performing the work for the County.
 - C. The Contractor agrees that if an actual or potential organizational conflict of interest is discovered after award, the contractor will make a full disclosure in writing to the County. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the County, to avoid, mitigate, or minimize the actual or potential conflict.
 - D. Remedies - The County may terminate this contract in whole or in part, if it deems such termination necessary to avoid an organizational conflict of interest. If the Contractor was aware, or discovered an actual or potential conflict after award and did not disclose or misrepresented relevant information to the County, the County may terminate the contract, or pursue such other remedies as may be permitted by the law or this contract. The terms of Clause I of this Appendix B or other applicable contract provision regarding termination shall apply to termination by the County pursuant to this clause.
 - E. The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform to the language of this clause.
- IV. All requests for payment by the Contractor must be submitted on forms supplied and approved

by the County. Each payment request must contain such items of information and supporting documentation as required by the County, and shall be all inclusive for the period of time covered by the payment request.

- V. To the extent that federal funds are provided to the Contractor under this contract, the Contractor agrees that it will comply with all applicable federal laws and regulations, including but not limited to those laws and regulations under which the Federal funds were authorized.

The Contractor further agrees to insert in any subcontract hereunder, provisions which shall conform substantially to the language of this clause, including this paragraph.

- VI. The Contractor shall have the status of an independent contractor, and in accordance with such status, agrees that it will conduct itself in a manner consistent with such status, and that it will neither hold itself out as, nor claim to be, an officer or employee of the County by reason of this contract. It further agrees that it will not make against the County any claim, demand or application to or for any right or privilege applicable to an officer or employee of the County, including but not limited to worker's compensation coverage, unemployment insurance benefits, social security coverage, or retirement membership or credit.

- VII. In the event of a conflict between the terms between this Appendix B and the terms of the Contract (including any and all attachments thereto and amendments thereof, but not including Appendix A), the terms of this Appendix B shall control. In the event of a conflict between the terms of this Appendix B and Appendix A, the terms of Appendix A shall control.

- VIII. The main contract shall contain a paragraph incorporating the terms of this appendix by reference and the parties therein shall further sign and date this appendix.

Livingston County

Contractor
(Signature of Authorized Official Required)

APPENDIX C

APPENDIX C

LIVINGSTON COUNTY STANDARD CONTRACT INSURANCE REQUIREMENTS

- I. Notwithstanding any terms, conditions or provisions, in any other writing between the parties, the contractor/permittee hereby agrees to effectuate the naming of the County of Livingston as an unrestricted additional insured on the contractor's/permittee's insurance policies, with the exception of workers' compensation and professional errors and omissions. **The contractor/permittee must provide an additional insured endorsement.** A statement on the contractor/permittee's insurance certificate that the County of Livingston is an additional insured is **not** sufficient. The form of the additional insured endorsement must be approved by the Livingston County Attorney.
- II. The policy naming the County of Livingston as an additional insured shall:
- be an insurance policy from an A.M. Best rated "secured" New York State licensed insurer;
 - state that the organization's coverage shall be primary coverage for the County of Livingston, its Board, employees and volunteers. Any insurance or self-insurance as maintained by the County of Livingston shall be in excess of the contractor's insurance, and shall not contribute with it.
- III. The contractor/permittee agrees to indemnify the County of Livingston for any applicable deductibles or self insurance reserves.
- IV. Required Insurance:
- **Commercial General Liability Insurance, including Completed Operations Coverage for construction contracts**
\$1,000,000 per occurrence/ \$2,000,000 aggregate per project.
 - **Automobile Liability**
\$1,000,000 combined single limit for owned, hired and borrowed and non-owned motor vehicles.
 - **Workers' Compensation**
Statutory Workers' Compensation and Employers' Liability Insurance for all employees.
 - **Owners Contractors Protective Insurance (Generally required only for construction contracts. Contact Livingston County Attorney for determination of necessity.)**
\$1,000,000 per occurrence/\$2,000,000 aggregate, with the County of Livingston as the named insured.
 - **Professional Errors and Omissions Insurance (If professional service contract)**
\$1,000,000 per occurrence/ \$2,000,000 aggregate for the negligent professional acts of the contractor.
- V. The contractor/permittee is to provide the County of Livingston with a certificate of insurance, evidencing the above requirements have been met, prior to the commencement of work or use of facilities and upon each renewal thereafter. **Contractor/permittee or its insurance carrier(s) shall provide the County of Livingston with thirty (30) days prior written notice of cancellation, reduction of insurance or material coverage change of the required insurance policies. Such notice shall be mailed to the Livingston County Attorney, Livingston County Government Center, Room 302, 6 Court Street, Geneseo, New York 14454 and shall include the date and subject matter of the original contract. Contractor/permittee acknowledges that failure to obtain such insurance on behalf of the County of Livingston, or the failure to provide such notices, constitutes a material breach of contract and subjects it to liability for damages, indemnification and all other legal**

remedies available to the County of Livingston, including termination of the contract. The failure of the County of Livingston to object to the contents of the certificate or the absence of same shall not be deemed a waiver of any and all rights held by the County of Livingston.

VI. If at any time any of the policies required herein shall be or become unsatisfactory to the County, as to form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the county, the contractor shall upon notice to that effect from the County, promptly obtain approval and submit a certificate thereof. Upon failure of the contractor to furnish, deliver, and maintain such insurance, the Agreement, at the election of the County, may be declared suspended, discontinued or terminated. Failure of the contractor to take out, maintain, or the taking out or maintenance of any required insurance, shall not relieve the contractor from any liability under the Agreement, nor shall the insurance requirements be construed to conflict with or otherwise limit the contractual obligations of the contractor concerning indemnification. All property losses shall be made payable to and adjusted with the County.

In the event that claims, for which the county may be liable, in excess of the insured amounts provided herein are filed by reason of any operations under the Agreement, the amount of excess or such claims or any portion thereof, may be withheld from payment due or to become due the contractor until such time as the contractor shall furnish such additional security covering such claims in form satisfactory to the County of Livingston.

The County reserves the right to require complete certified copies of all required insurance policies, at any time, which shall be delivered to the County within ten days of such request.

VII. ADDITIONAL INSURED ENDORSEMENT AND CERTIFICATE OF INSURANCE:

The contractor/permittee shall file with the Livingston County Attorney, prior to commencing work under this contract, an additional insured endorsement and a Certificate of Insurance, which shall include:

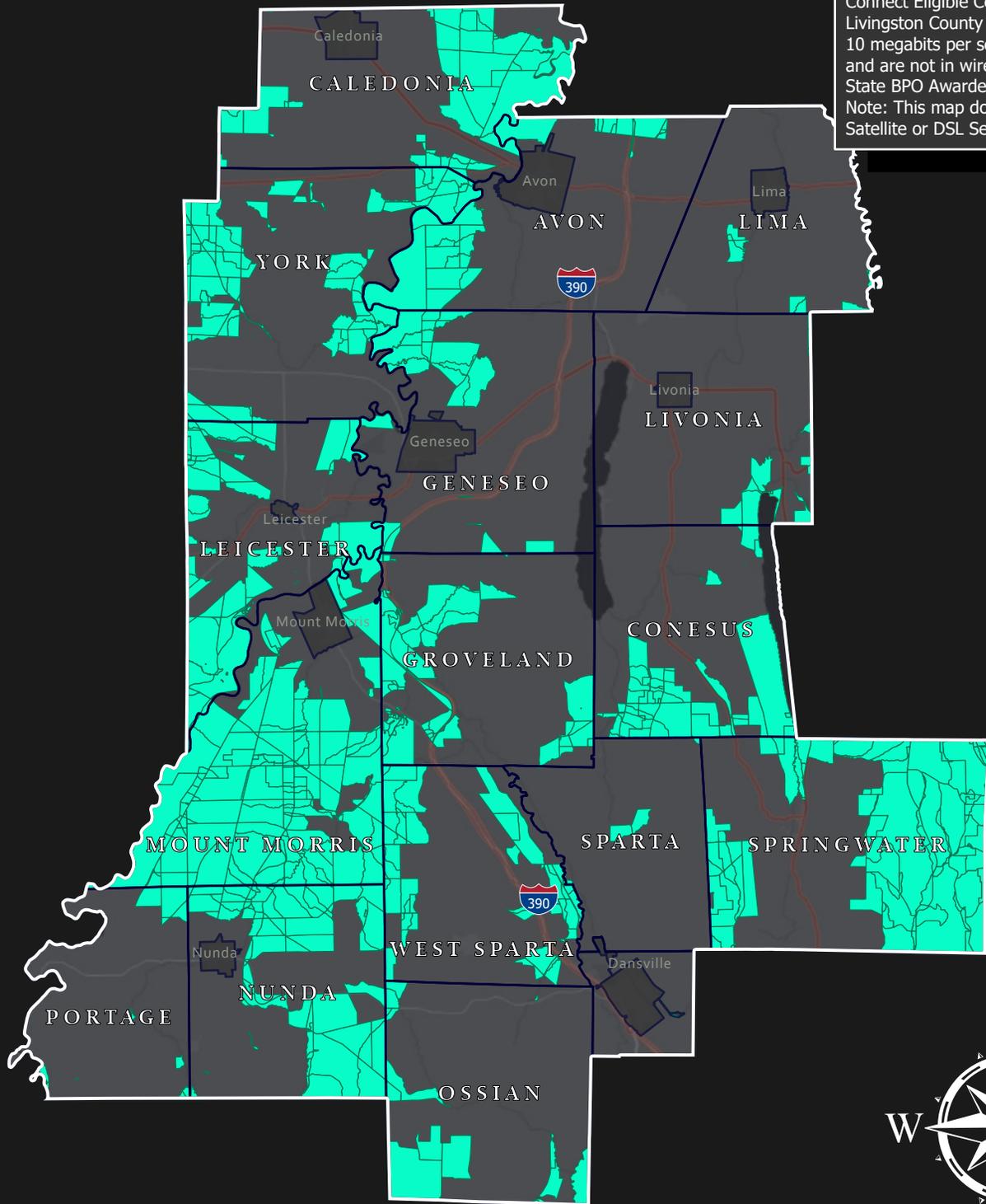
- a. Name and address of insured
- b. Issue date of certificate
- c. Insurance company name
- d. Type of coverage in effect
- e. Policy number
- f. Inception and expiration dates of policies included on certificate
- g. Limits of liability for all policies included on certificate
- h. Certificate holder shall be County of Livingston, Livingston County Government Center, 6 Court Street, Geneseo, New York 14454-1043.
- i. Description of contract for which insurance is being provided.
- j. Insurance agents name, address and phone number.

Contractor
(Signature of Authorized Official Required)

Date

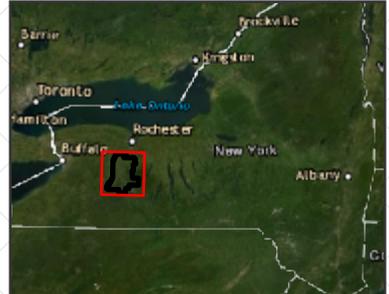
APPENDIX D

This map shows USDA Re-Connect Eligible Census Blocks in Livingston County that are under 10 megabits per second (mbps) and are not in wired New York State BPO Awarded Areas. Note: This map does not include Satellite or DSL Served Areas.



USDA Re-Connect Eligibility

County of Livingston
 HUNT Broadband Network Design
 Livingston County



 **USDA ELIGIBLE**



APPENDIX E

PRELIMINARY ENGINEERING REPORT

for

Broadband Development in

LIVINGSTON COUNTY

NOVEMBER 2019

HUNT 3258-001

Prepared by:
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Preliminary Engineering Report

For

Broadband Development in

LIVINGSTON COUNTY

HUNT 3258-001

November 2019

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4. Available Funding
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 - b. USDA Re-Connect Eligibility
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5. County Broadband Goals
 - a. 1 Gbps
 - b. Symmetrical Service Offering
 - c. Fiber Optical Medium
6. Conclusion

1. Executive Summary

The County of Livingston is located on the western edge of the Finger Lakes Region of New York State. It has a population of 64,000 and more than 200 businesses operate within its borders. Like many other communities in central New York State, Internet service has become vital to the economic growth and quality of life for its residence. Internet service speeds can vary greatly from rural to urban areas. Limitations on available bandwidth can quickly create a digital divide for rural communities. That can have an adverse impact on education, healthcare, emergency services, home values and the local economy.

Because of this, Livingston County has decided to set its own standards of bandwidth available in the County to ensure internet access is available to its residents. The standard of 1 Gbps download speed has become a nationally recognized benchmark and this report seeks to evaluate, inform and provide some preliminary planning to assist the County in moving toward this end.

The purpose of this report is to look at the current service providers within the County, available funding and a recommendation of how to proceed with some broadband development activities to accomplish the County's goals. This process will start with looking at County population, critical facilities, schools, medical facilities, business locations which will help paint the landscape of broadband needs in the County. The report will then look at what areas currently comply with Livingston's broadband speed standard and areas that do not. The areas that do not meet the standard will then be analyzed to determine if any funding is available and what impact different broadband strategies would have on development in the County. Livingston County has set its goals for broadband in the county as follows:

1. Increase high speed internet offering/availability in underserved areas (as defined by FCC).
2. Increase high speed internet offering/availability in underserved areas (as defined by Livingston County).
3. Increase high speed internet offering/availability in all of Livingston County to promote economic development and quality of life.
4. Define "high speed internet offering" goals.

Livingston County has recognized the vital importance of broadband for its residents and this report seeks to provide a roadmap to encourage the development needed to meet the County's broadband standard. In addition to this report, Livingston County plans to issue a survey to its residents to collect real bandwidth data to ensure that the County is not reliant on inaccurate data provided by service providers. This information will be critical when applying for any funding where bandwidth speeds are the metric by which the funding is contingent.

2. Livingston County Mapping

The following set of maps will provide context for the report. The maps will show the following:

- Population Density
- Locations of Critical Facilities
- Business Locations
- Vertical Structures

This data will help identify bandwidth needs and inform funding opportunities for different types of facilities within the County. Schools, Medical Facilities, Emergency Services all can provide funding that could existentially assist residential broadband development.

Private internet service providers focus on highly populated areas and business accounts to see the highest rate of return on their investment. Identifying these areas juxtaposed to the mapping process will add to the decision-making process by identifying need or funding opportunity. (Source: 2018 Connecting Livingston County Inventory Atlas of Broadband Assets)

- a. Population Density (See Appendix A – Population Density)**
- b. County Critical Facilities (See Appendix B – Critical Facilities)**
- c. Major Businesses (See Appendix C – Economic)**
- d. Vertical Structures (Appendix D - Vertical Structures)**

3. Current Broadband Status

The following section will discuss the current Broadband landscape in Livingston County and what areas current meet or do not meet that criteria.

a. 1 Gbps or Greater Download Speeds

Within Livingston County, there are 2,193 Census Block that offers 1 Gbps service (based on the most recent FCC data provided). This includes Spectrum Communication's 940 Mbps download speed offering which is essentially their 1Gbps offering lowered to the max throughput of most commercially available home wireless routers. The speeds are not symmetrical meaning that the upload and download speeds are different. Symmetrical service is available through Fiber-to-the-Home providers if offered but most use that extra bandwidth for Cable TV & other services. With most cable TV moving to internet subscription services, the trend of next generation technology has allowed for more symmetrical offerings to be provided for internet only customers. The next best download speed available in the County is 120 Mbps download, non-symmetrical service.

While many rural census blocks will require broadband development to reach the County's goals, the only densely populated area without 1 Gbps service is Caledonia. No symmetrical service is offered at 1 Gbps to residential customers and business customers have varying levels of dedicated bandwidth depending on cost.

Please note that this map does not include New York State Broadband Program Office awards, that is identified later in this section.

(See Appendix E – Gigabit Service)

b. 100 Mbps or Greater Download Speeds

To contrast Livingston County's broadband standard of 1 Gbps download speeds to the next closest service offering of 100 Mbps download, the following map shows areas where 100 Mbps download is available. This shows the lack of competition within the County. Spectrum offers 100-940 Mbps service in the areas shown in the map below as green, with no other service providers competing with them at that level of service. It also shows that Spectrum likely has the capability of expanding 1 Gbps service to Caledonia. Livingston County currently has 2,311 Census blocks that offer 100+ Mbps download speeds and 1,145 Census blocks that do not meet these speeds.

(See Appendix F – 100 Mbps Service)

4. Available Funding

a. Current Broadband Awards

Hughes Net and Armstrong Telephone were awarded funds from the NY Broadband Program Office. Armstrong is currently the only provider that plans to use the funds to provide 1 Gbps service by way of a Fiber-to-the-Home (FTTH) network. HughesNet uses satellite technology to deliver 25 Mbps download speeds but struggle with latency issues. The current standard for “sufficient” bandwidth from New York State and the FCC is 10 Mbps download which leaves the funding open for technology with limited room to expand. The Armstrong Telephone project area (shown in green) should be considered compliant with Livingston County’s broadband standard while the HughesNet Project areas (shown in purple) should be considered below the County’s standard and areas of future broadband development.

(See Appendix G – BPO Awards)

b. Grant Programs

The following is a list of broadband grant opportunities, all with different goals and conditions. Some are tied to the FCC & NY BPO broadband standard of 10 Mbps download and 3 Mbps Upload speeds. Others target business development, infrastructure, health and education.

USDA ReConnect Program – This program offers three types of funding options for broadband infrastructure to connect rural communities to high speed internet. A rural area is eligible if it does not have sufficient access to broadband. The grants, grant and loan combinations, and low interest loans can be used to construct, improve, and acquire facilities that provide internet services to customer’s premises with reliable technologies.

- <https://www.usda.gov/reconnect>
- 100% Grant: 100% of households must not have broadband access, Grant to \$25,000,000, Match 25% of Grant
- 50% Grant/50% Loan: 90% households must not have broadband access, Grant to \$25,000,000, 50% Loan
- 100% Loan: 90% households must not have broadband access, Loans up to \$50,000,000.

- Anticipated Application Due: March 2020

USDA Community Connects Grants – The Community Connects program helps fund broadband deployment in rural communities where it is not yet economically viable for private-sector providers to deliver service. The grants offer financial assistance to eligible service providers that will construct, improve, or expand broadband networks in rural areas. Eligible areas are rural areas that lack any existing broadband speed, offer service to all residential and business customers within service area, offer free service to all Critical Community Facilities within the service area for at least two years, provide a community center with at least two computers free of charge for at least two years.

- <https://www.rd.usda.gov/programs-services/community-connect-grants>
- Award: Between \$100,000 and \$3 million
- Cash Match: 15% of Grant Award
- Anticipated Application Open: March 2020

Distance Learning & Telemedicine Grants – 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. Grant funds may be used for broadband facilities that support distant learning or telemedicine, computer hardware, network components, software, acquisition of programming.

- <https://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants>
- Award: \$50,000 to \$500,000
- Cash Match: 15%
- Anticipated Application Open: January

NYS Empire State Development Grant Funds - Funding available for capital-based economic development projects intended to create or retain jobs; prevent, reduce or eliminate unemployment and underemployment; and/or increase business or economic activity. Strategic community development includes communication distribution. Projects should demonstrate the ability to attract new businesses and expand existing businesses. Projects that are able to provide direct job commitments will be viewed favorably.

- <https://esd.ny.gov/empire-state-economic-development-fund-program>
- Award: 20% of Total Project Costs
- Cash Equity: 10% of Total Project Cost
- Anticipated Application Open: May-July

Northern Border Regional Commission State Economic & Infrastructure Development Investment Program – Mission is to fund economic development and infrastructure projects

to help reduce poverty, unemployment and outmigration. Livingston County meets distressed criteria and is eligible for highest level of funding

- Award: \$500,000
- Match: 20%
- Anticipated Application Open: March - May
- <http://www.nbrc.gov/content/economic-infrastructure-development-investments>

Community Development Block Grant Public Infrastructure – Annual grants to be used for public infrastructure to benefit principally low – and moderate-income persons. Livingston County LMI is 38.02% and is not eligible; however, the following communities within Livingston County are eligible: Village of Dansville and Village of Geneseo.

- <https://hcr.ny.gov/community-development-block-grant>
- Award: Up to \$750,000 or \$1M with Co-funding
- Anticipated Application Open: May – July

Economic Development Agency Public Works – Must list project on Comprehensive Economic Development Strategy, Livingston County 24-month unemployment rate is 4.4% (June 2019 BLS) compared to National unemployment rate of 3.94%, this rate does not meet (A), (C), (E), nor (G). Livingston County per capita income is \$27,318 (2017 ACS) compared to National per capita income of \$31,177, this value does not meet (B), (D), (F), nor (H). Therefore, this is not an option at this time.

- <https://eda.gov/funding-opportunities/>

Schools and Libraries (E-rate) Program – Provides discounts for internet access and telecommunications services and equipment, discounts range from 20-90% based on need.

- <https://www.usac.org/sl/default.aspx>

FCC High Cost Program – Designed to ensure that consumers in rural, insular, and high-cost areas have access to modern communications networks at reasonable rates through eligible carrier cost recovery.

- <https://www.usac.org/hc/>

Rural Health Care Program – Subsidizes connectivity for public and non-profit health care providers with a focus on rural areas. Supports reduced rates for broadband and telecom services through the Healthcare Connect Fund and Telecommunications Program.

- <https://www.usac.org/rhc/default.aspx>
- Anticipated Application Open: February - May

C. Loan Programs

USDA Telecommunications Infrastructure – Provides financing for the construction, maintenance, improvement and expansion of telephone service and broadband in rural areas. Eligible areas include rural areas without telecommunications facilities, may not duplicate similar services available in same area.

- <https://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees>
- Loan: Cost of Money Loans, Hardship loans
- Loan Terms: Expected Composite Life of Assets plus 3 years
- Applications accepted year round

USDA Rural Broadband Access Loans – The program furnishes loans and loan guarantees to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service at the broadband lending speed in eligible rural areas. Eligibility includes rural area with at least 15% of households in the service area are underserved, no part of the service area has three or more providers, nor part of the service area overlaps with current USDA RUS borrowers.

- <https://www.rd.usda.gov/programs-services/rural-broadband-access-loan-and-loan-guarantee>
- Loan: Cost of Money Loans
- Loan Terms: Expected Composite Life of Assets plus 3 years
- Anticipated Applications Accepted November – September

USDA ReConnect Program – This program offers three types of funding options for broadband infrastructure to connect rural communities to high speed internet. A rural area is eligible if it does not have sufficient access to broadband. The grants, grant and loan combinations, and low interest loans can be used to construct, improve, and acquire facilities that provide internet services to customer's premises with reliable technologies.

- <https://www.usda.gov/reconnect>
- 50% Grant/50% Loan: 90% households must not have broadband access, Grant to \$25,000,000, 50% Loan
- 100% Loan: 90% households must not have broadband access, Loans up to \$50,000,000.
- Anticipated Application Due: March 2020

d. USDA Re-Connect Eligibility

There are no areas within Livingston County that are eligible for the USDA Re-Connect Grant, based off the listed Criteria from the USDA:

“To be eligible to receive ReConnect Program funds, the proposed service area must meet various criteria. First, a proposed service area must contain at least 90 percent (%) of the households currently lack sufficient broadband access. Sufficient access to broadband means any rural area that has fixed, terrestrial broadband service delivering at least 10 megabits per second (Mbps) downstream and 1 Mbps upstream. For eligibility purposes, if an applicant is applying for multiple proposed funded service areas, each service area will be evaluated on a stand-alone basis.

A proposed funded service must also be located in a rural area. A rural area is any area that is not located in a city, town, or incorporated area that has a population of greater than 20,000 inhabitants or an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants.”

Due to the updated FCC data and low speed of the minimum service requirements, it is recommended that Livingston County request a determination with regards to two inconsistencies in the requirements.

1. Eligibility of the NYS BPO Satellite awarded census blocks. USDA Reconnect specifically will only fund wireline bandwidth projects yet considers satellite service areas “served” or meeting the minimum requirements of 10 Mbps but 3 Mbps. This seems to counter the intent of the grant and the USDA has not provided clear guidance on the issue.
2. Eligibility of ADSL service areas. The theoretical maximum bandwidth ADSL can provide is 24 Mbps by 3 Mbps however the signal diminishes over distance and within a mile of the active equipment, bandwidth has reduced to less than 10 Mbps by 1 Mbps. It's not realistic to think that active equipment is within a mile of all customers and explains the variation in bandwidth between ADSL customers. The USDA allowed these areas to be included in the 2019 Reconnect cycle and should be challenged again in 2020.

e. USDA Re-Connect Eligibility (Satellite-Serviced Areas Removed)

When Satellite-Serviced Census Blocks are removed, the number of 10 Mbps and above Service Areas goes down which opens 58 Census Blocks (shown as Light Blue) that do not have sufficient Broadband service. USDA Re-connect specifically excludes satellite projects from funding however consider areas as “served” if a previously awarded satellite projects has

occurred. It is recommended that Livingston challenge this determination to open up the following areas.

(See Appendix H - USDA Reconnect No Satellite)

5. County Broadband Goals

a. 100 Mbps Service

The official FCC broadband definition is a minimum of 10 Mbps download and 1 Mbps upload based on the current requirements of their grant opportunities. That definition has increased 6 times more from 2010 and 125 more from 1996. Copper DSL and satellite internet are capable of delivering these speeds according to their advertised speeds, however, both are hampered by limitations. DSL uses an electrical current over copper wiring and the signal loss is devastating making it ineffective for distances over 1 mile from the source. Satellite service is limited on the total data consumption for the month and throttles speeds when consumers exceed their data cap. As the Internet landscape continues to grow in online offerings and increasing video quality, the demand for higher bandwidth has also increased. The County has set a goal of making 1 Gbps service available to its residents as the County standard. The national standard of 1 Gbps download speed would ensure that the County will be at the cutting edge for years to come. It is recommended that symmetrical service be a secondary goal however a minimum upload standard should also be set at 100 Mbps.

b. Fiber Optical Medium

In order to provide this robust, future-proof infrastructure the County will want to select a medium that allows expansion into the future. There are currently two main mediums for delivering internet service. The County will want to ensure that the investment it makes today in its network infrastructure will not only deliver an ROI, but also put itself in the best possible position to move far into the future. Choosing a future proof technology is paramount to the future success of this investment.

While advancements continue to develop new standards for copper wiring, there are a number of limitations for this technology due to the physical properties of low voltage electrical signals over copper. It's reliance on electrical impulses to push data cause severe signal degradation/loss over distance and makes it highly susceptible to inclement weather and electric interference. Signal traveling over 100 meters on copper cabling loses 94% signal strength. Copper is also a relatively soft metal causing it to be easily damaged.

Fiber Optic cable is very robust. Offering significant advantages over copper. Where copper uses electrical signals to send data down the line, fiber optic cable uses light impulses and experiences very little signal loss over distance (3% loss over 100 meters). Fiber optic cable is also much more resilient and impervious to the elements, resulting in a much longer lifecycle and

significantly lower total cost to own. Though it is possible to break, fiber optic cable is extremely strong and flexible.

In addition to its physical characteristics, fiber optic cable relies on the Gigabit Passive Optical Network (GPON) standard to deliver 1 Gbps service to end users. GPON utilizes splitters to break a single light stream into multiple streams in order to cost-effectively provide service to multiple end-users. This light signal can also travel effectively up to 12+ miles from the main cabinet to service customers.

c. Symmetrical Service Offering

With the expansion of online streaming services replacing traditional cable and the significant increase in the use of broadcasting technologies like Facebook Live and YouTube Live, symmetrical service is becoming increasingly popular and likely will be the standard of the future. Traditionally internet service providers have offered limited upload speeds to decrease their overhead for bandwidth. This modern approach to internet service offerings will set the County up to be a leader and a destination for new residential and business constituents.

6. Conclusion

In conclusion, Livingston County has a few options to consider that could further the Broadband development in areas below the County's new broadband standard of 1 Gbps download speeds.

a. Support a Dark Fiber infrastructure project

Dark fiber is a term used to describe leasable fiber optic cable connections available customers in lieu of those same customers buying and maintaining their own connections. The term dark is also key in understanding the business model by which a fiber leasing entity works. The fiber that is leased is dark meaning that no transmission equipment is provided to the customer and that the customer must purchase and maintain the active electronics. The advantage to a customer is that they can connect sites at a lower capital cost than building their own infrastructure and lower their operating expenditures by not incurring the same costs of a throttled connection through a business internet service provider. Likewise, existing internet service providers can use these leasable dark fiber connections to expand services rapidly without major capital costs. This promotes broadband development by providing equal opportunity to multiple providers and accentuating the available funding sources that currently exist. Other advantages include connecting critical facilities, towers, government buildings, schools and hospitals.

Rather than create an entity and build a dark fiber network themselves, Livingston County could partner with a local dark fiber provider the Southern Tier Network. Utilizing economic development grants, Livingston County could provide the required match funds for the grant in exchange for the use of 12-fibers on the network. This will allow the County to connect buildings, critical facilities and other assets using this fiber and reduce the current costs of separate internet connections at each site. Once built, it would strategically connect STN to the Rochester market where there are several service providers who could lease connections into your County for residential broadband.

b. Request for Proposal to Internet Service Providers

An RFP could be issued to all local internet service providers that identifies areas below the County's broadband standard that are targeted for development. This RFP would incorporate grant funding as well as loans available for broadband development, outlining Livingston County's financial commitment in order to entice providers to participate. Below

are the grant and loan funding opportunities identified earlier in the report, separated by grants and loans. Please refer to the previous funding section for more details.

Grant Funding Opportunities

- USDA Reconnect
- USDA Community Connect
- USDA Distance Learning & Telemedicine
- NYS Empire State Development Grant
- NBRC Sate Economic & Infrastructure Development Investment Program
- Community Development Block Grant for Public Infrastructure
- Schools & Libraries E-Rate
- FCC High Cost Program
- Rural Healthcare Program

Loan Funding Opportunities

- USDA Rural Access
- USDA Rural Broadband Access Loans
- USDA Telecommunications Infrastructure

Besides specifying the intended service area and funding mechanism, Livingston County should dictate the terms of the partnership with regards to schedule and type of technology used. As stated earlier in this report, certain broadband technologies are limited and investment should be made in the fiber-to-the-home model that is capable of 1 Gbps speeds and beyond. The specification should be made in the RFP to provide a GPON capable FTTH network, ensuring that the successful proposer will be prepared for the future.

Schedule of implementation will be contingent upon funding requirements. It is recommended that to accomplish Livingston County's goals, a series of RFPs should be issued that scope the work in a manageable fashion and compartmentalizing funding. An example of this breakdown would be an RFP for the north end of the County near Caledonia, in which 1 Gbps is not available. This RFP should focus on economic development related funding due to the proximity to existing businesses and your libation trail. In contrast, the west and east sides of the County could focus on the USDA Re-connect, Community Connect and Public Infrastructure funding.

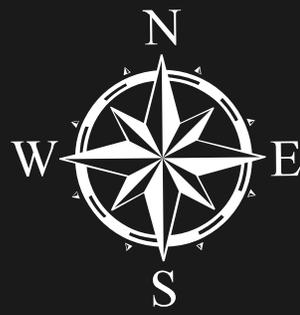
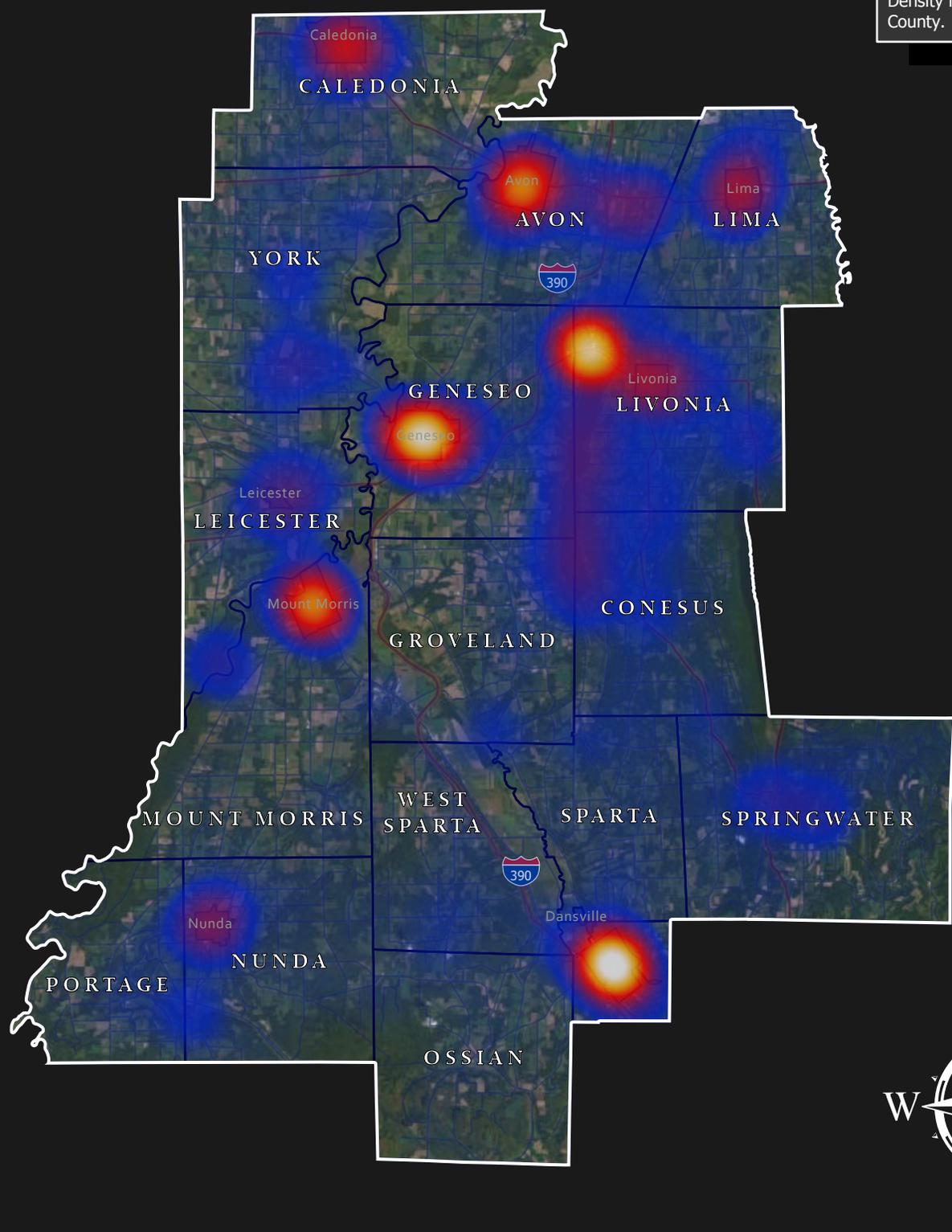
Each RFP could be scoped with a combination of grant, loan and match funds. Livingston County providing matching funds for the grants & loans will be the motivation for the ISPs responses. It is recommended that the local ISPs be informed of the availability of the RFP to ensure their response. There may be some areas that do not qualify for funding but would like to be included by the County in the project. In this case a revenue share model

should be negotiated with the successful respondent that matches the desired level of commitment from the County.

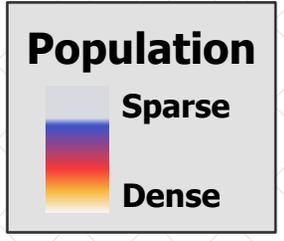
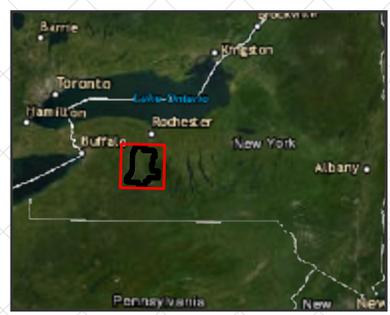
If the County chooses to work outside of any grant opportunities, it should consider a revenue share agreement that is amenable to both parties. The County may have to reduce its share of the revenue in extremely rural areas in order to motivate the ISP to build to remote areas. The ISPs Return on Investment (ROI) is too long when looking to provide service in these areas so the County would need to negotiate a position that motivates the ISP by positively affecting their ROI with subsidies and upfront construction costs. This can also negatively affect the schedule by which they complete the work. The County may need to provide some capital for construction and set up a revenue share structure that only pays back a portion of the construction capital.

(See Appendix I – RFP Service Area)

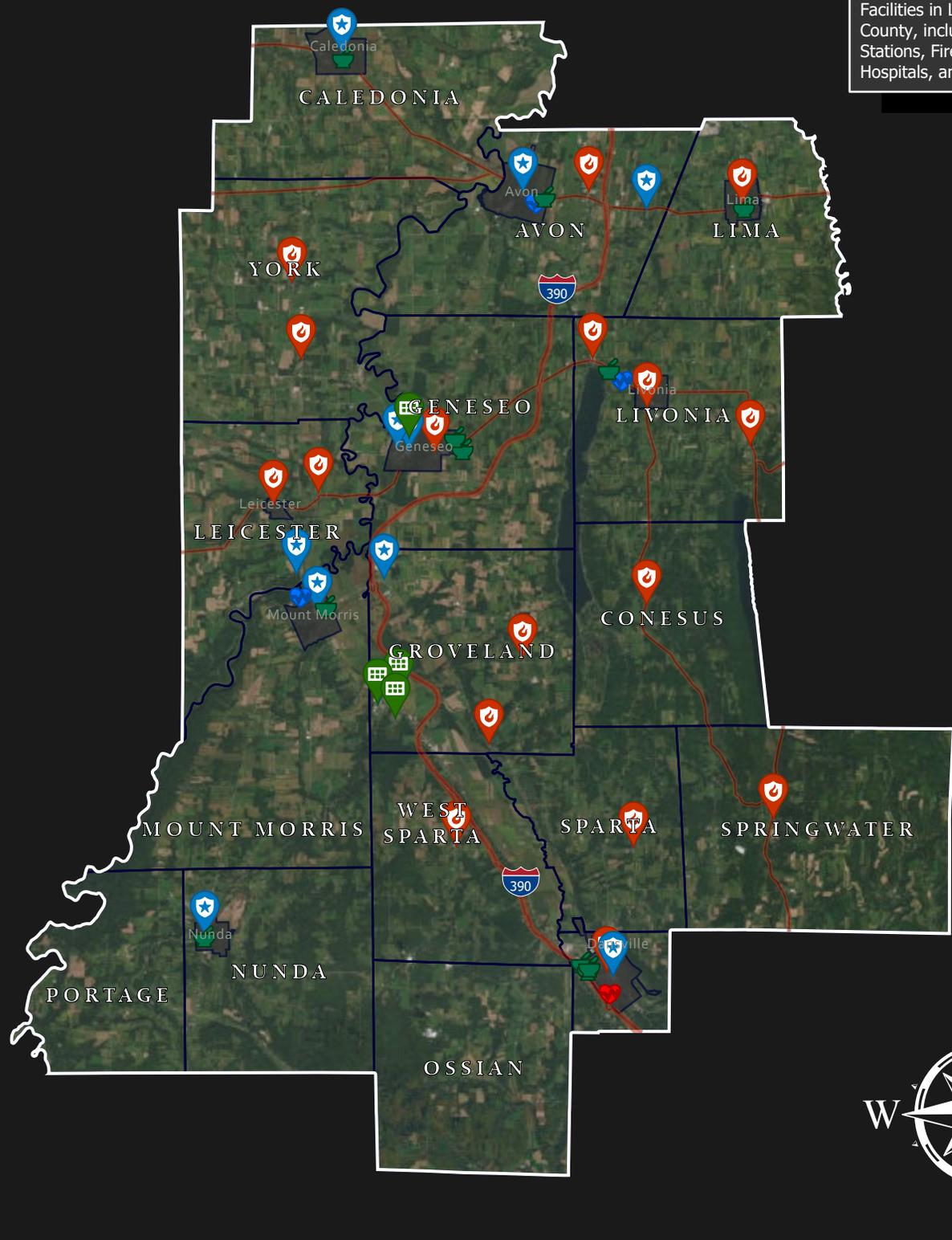
This map shows Address Density in Livingston County.



Address Density Map
 County of Livingston
 HUNT Broadband Network Design
 Livingston County



This map shows all Critical Facilities in Livingston County, including Police Stations, Fire Stations, Hospitals, and Prisons.



Critical Facilities in Livingston County

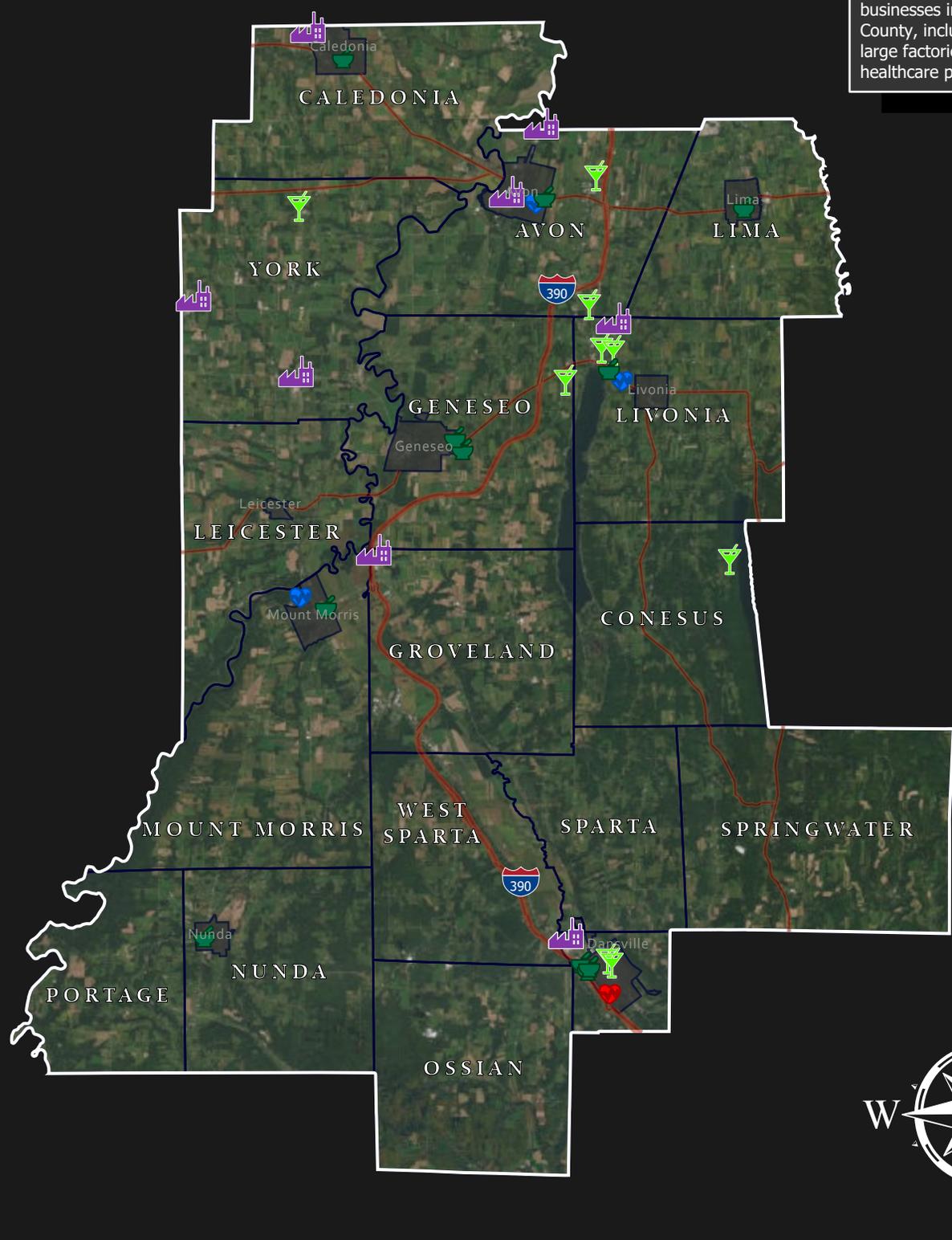
County of Livingston
 HUNT Broadband Network Design
 Livingston County



-  Hospitals
-  Nursing Homes
-  Pharmacies
-  Fire Stations
-  Local Law Enforcement
-  Prisons



This map shows the major businesses in Livingston County, including libations, large factories/farms, and healthcare providers.



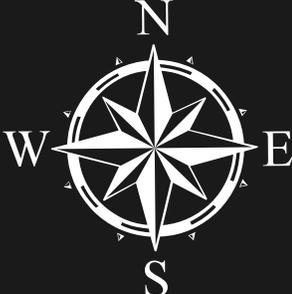
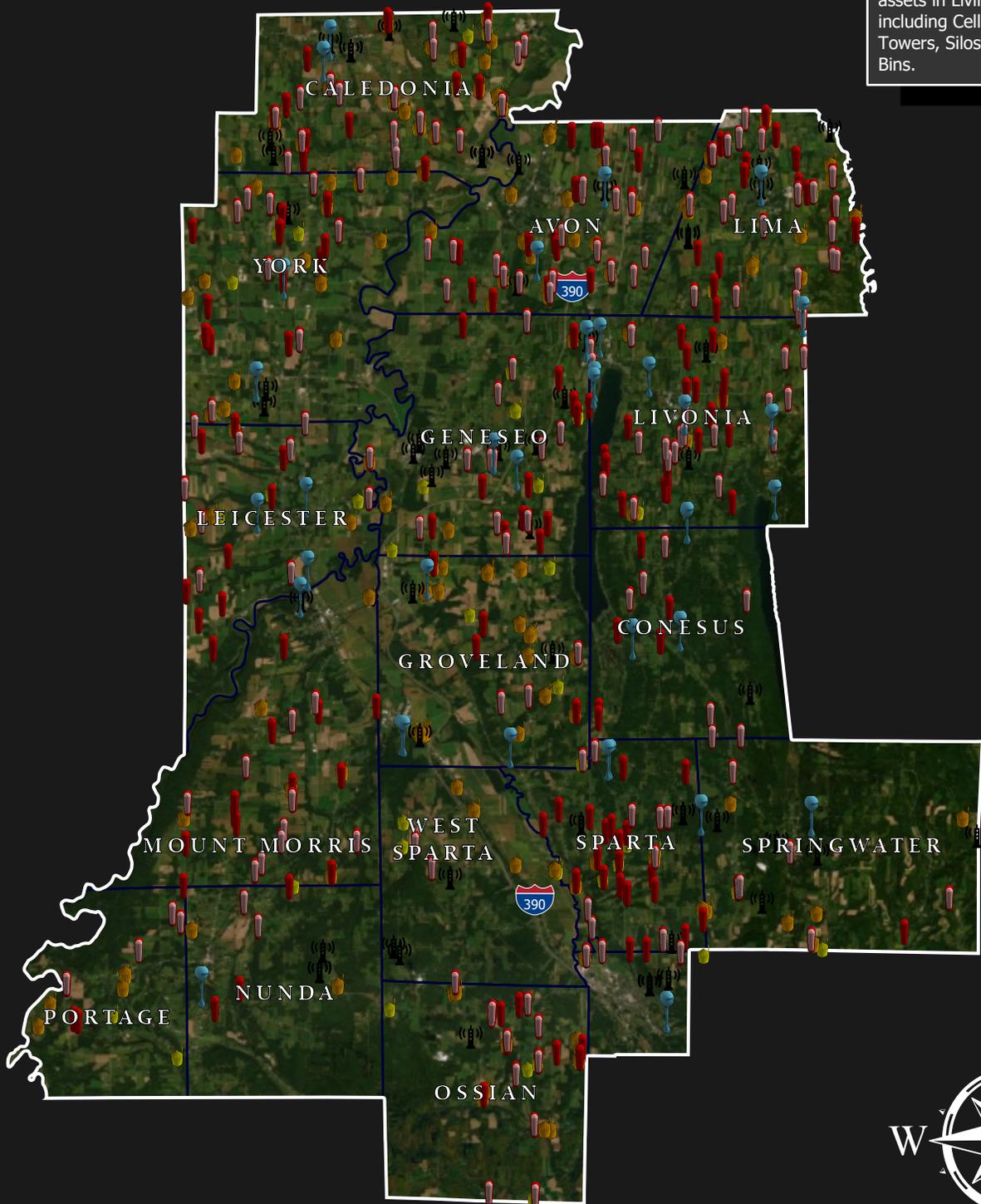
Major Businesses in Livingston County

County of Livingston
 HUNT Broadband Network Design
 Livingston County



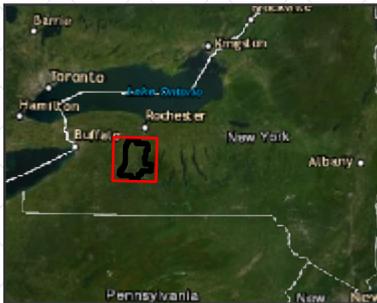
-  **Hospitals**
-  **Nursing Homes**
-  **Pharmacies**
-  **Major Operations**
-  **Libation Trail**

This map shows the vertical assets in Livingston County, including Cell and Water Towers, Silos, and Grain Bins.



Vertical Structures in Livingston County

County of Livingston
 HUNT Broadband Network Design
 Livingston County

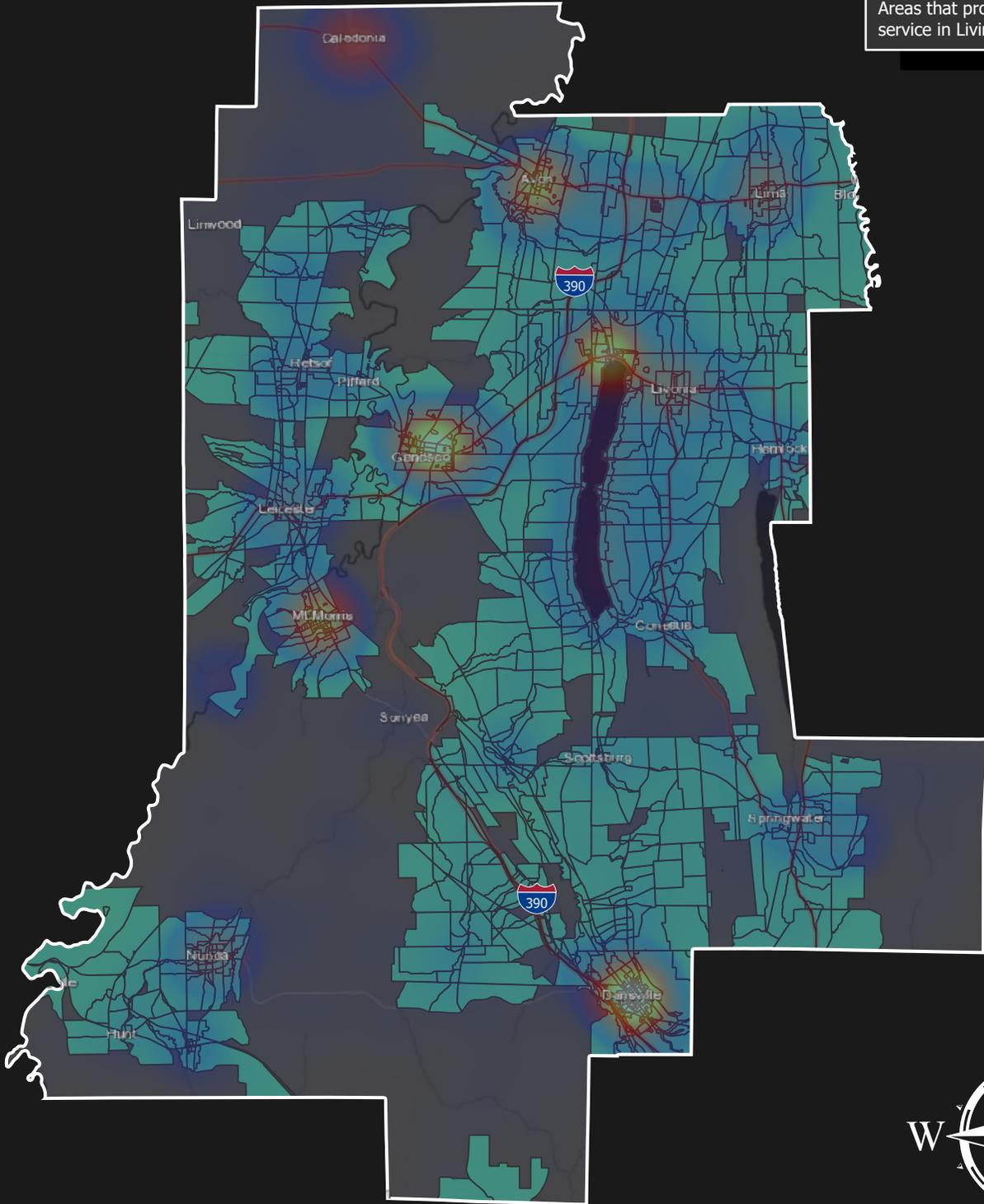


Vertical Structures

- Cell Towers
- Grain Bin - Short
- Grain Bin - Tall
- Silo
- Silo - Open
- Water Tower



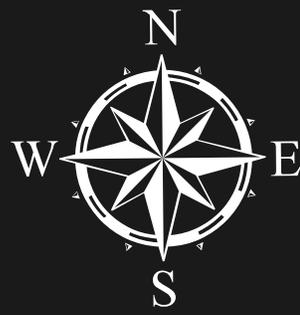
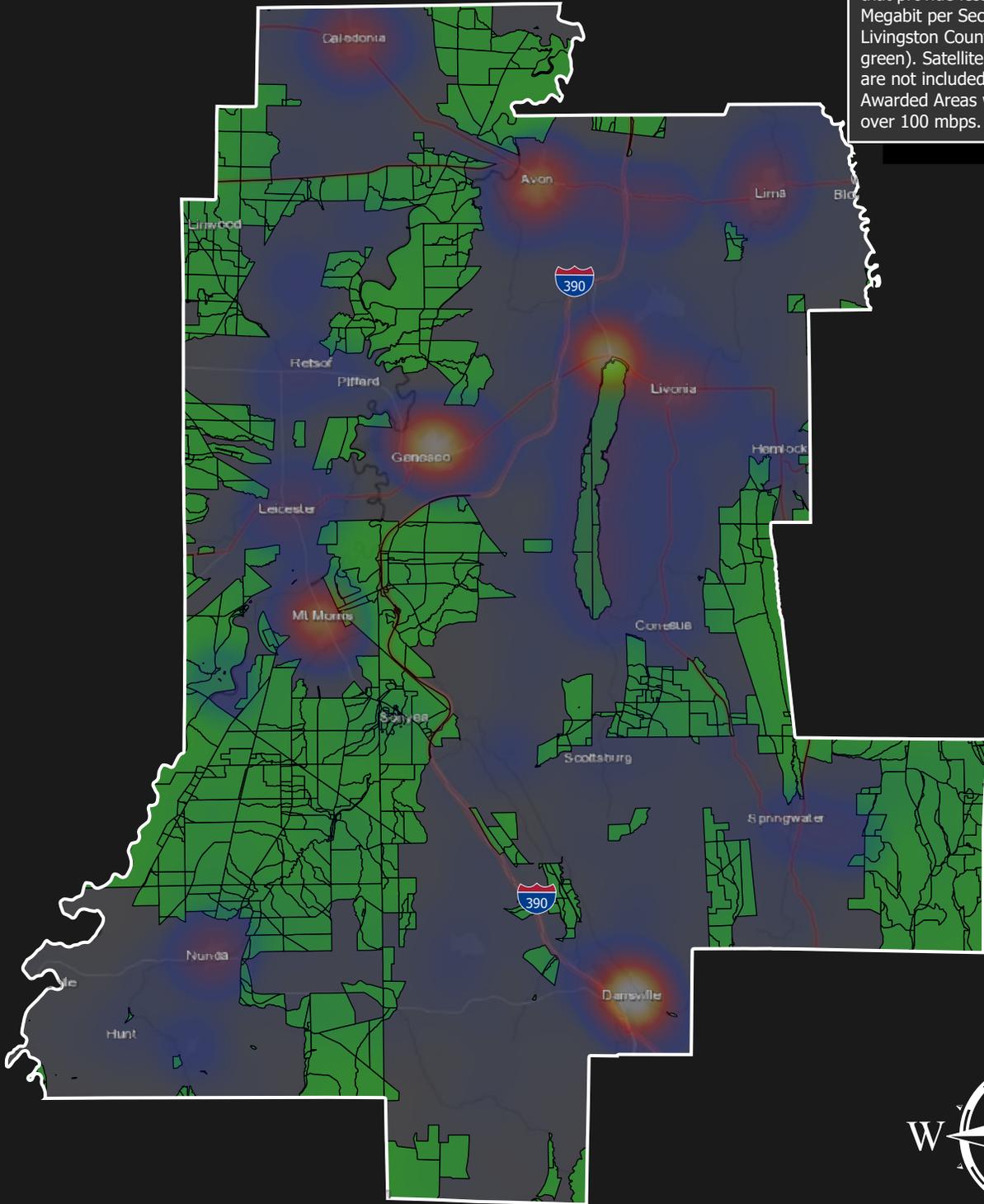
This map shows Service Areas that provide 1 Gigabit service in Livingston County.



1 Gigabit Service in Livingston County
 County of Livingston
 HUNT Broadband Network Design
 Livingston County



This map shows Service Areas that provide less than 100 Megabit per Second service in Livingston County (portrayed in green). Satellite Serviced Areas are not included. Armstrong BPO Awarded Areas were considered over 100 mbps.



Below 100 Mbps Service in Livingston County

County of Livingston
HUNT Broadband Network Design
 Livingston County

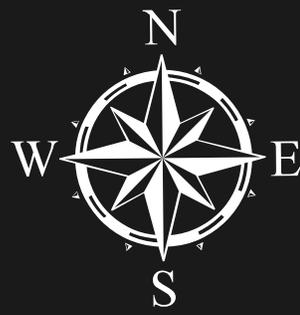
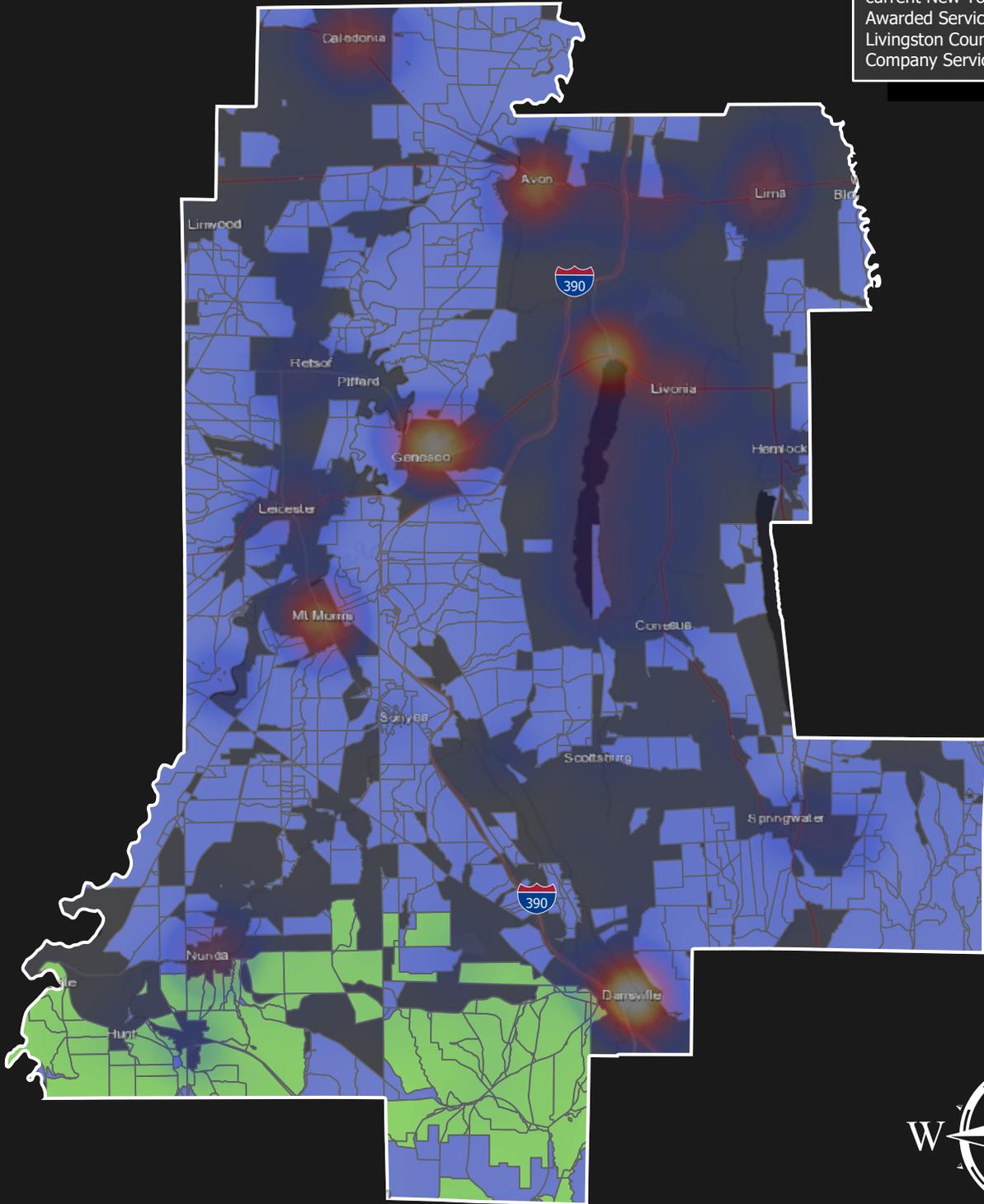


Population

- Sparse
- Dense
- Below 100 Mbps (Satellite Excluded)



This map shows the most current New York State BPO Awarded Service Areas within Livingston County based on the Company Service Provider.



NYS BPO Awarded Areas in Livingston County

County of Livingston
 HUNT Broadband Network Design
 Livingston County



Population

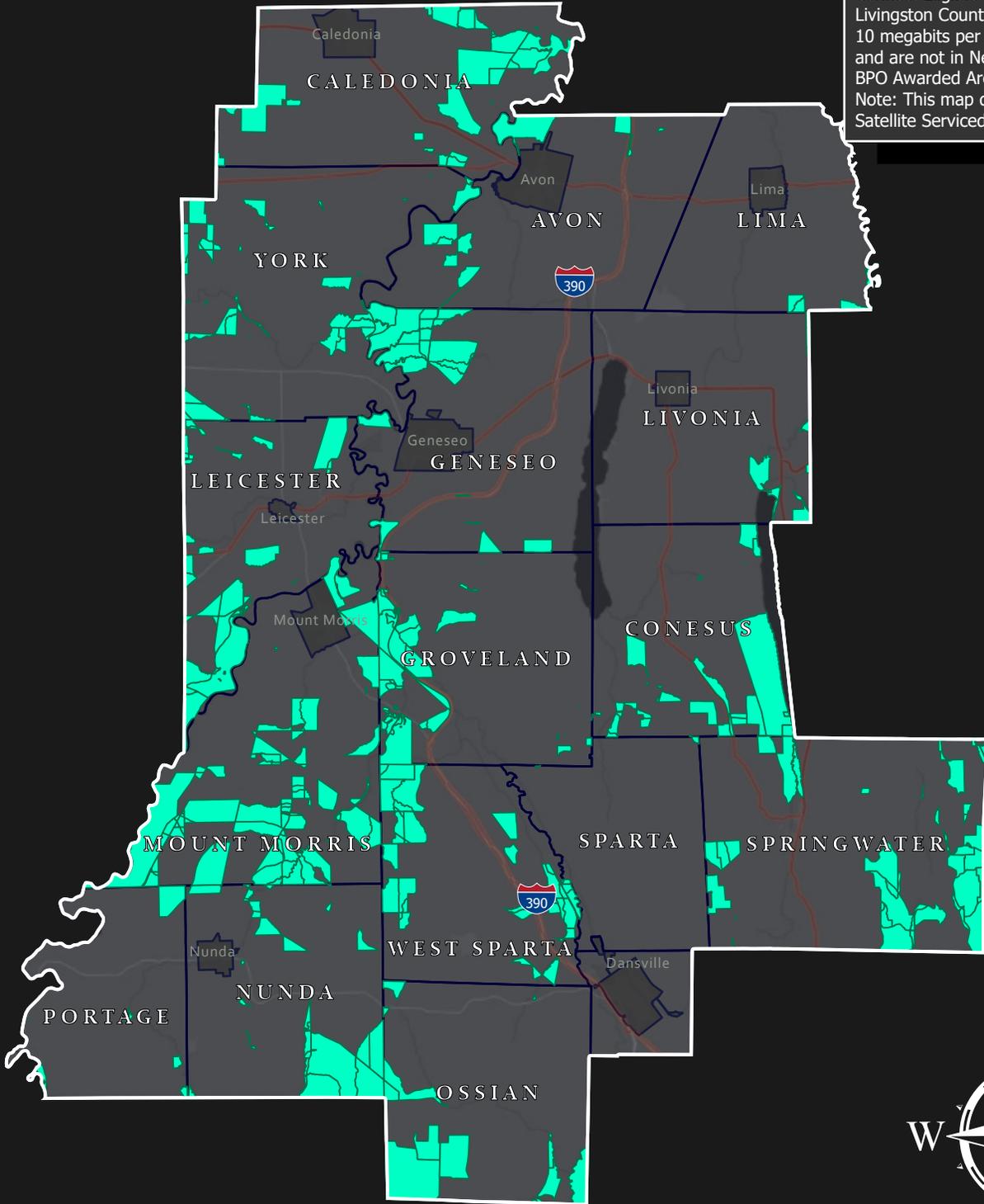
Sparse
 Dense

BPO Awarded Company Name

- Armstrong Telecommunications
- Hughes Network Systems, LLC



This map shows USDA Re-Connect Eligible Census Blocks in Livingston County that are under 10 megabits per second (mbps) and are not in New York State BPO Awarded Areas.
 Note: This map does not include Satellite Served Areas.



USDA Re-Connect Eligibility (No Satellite)

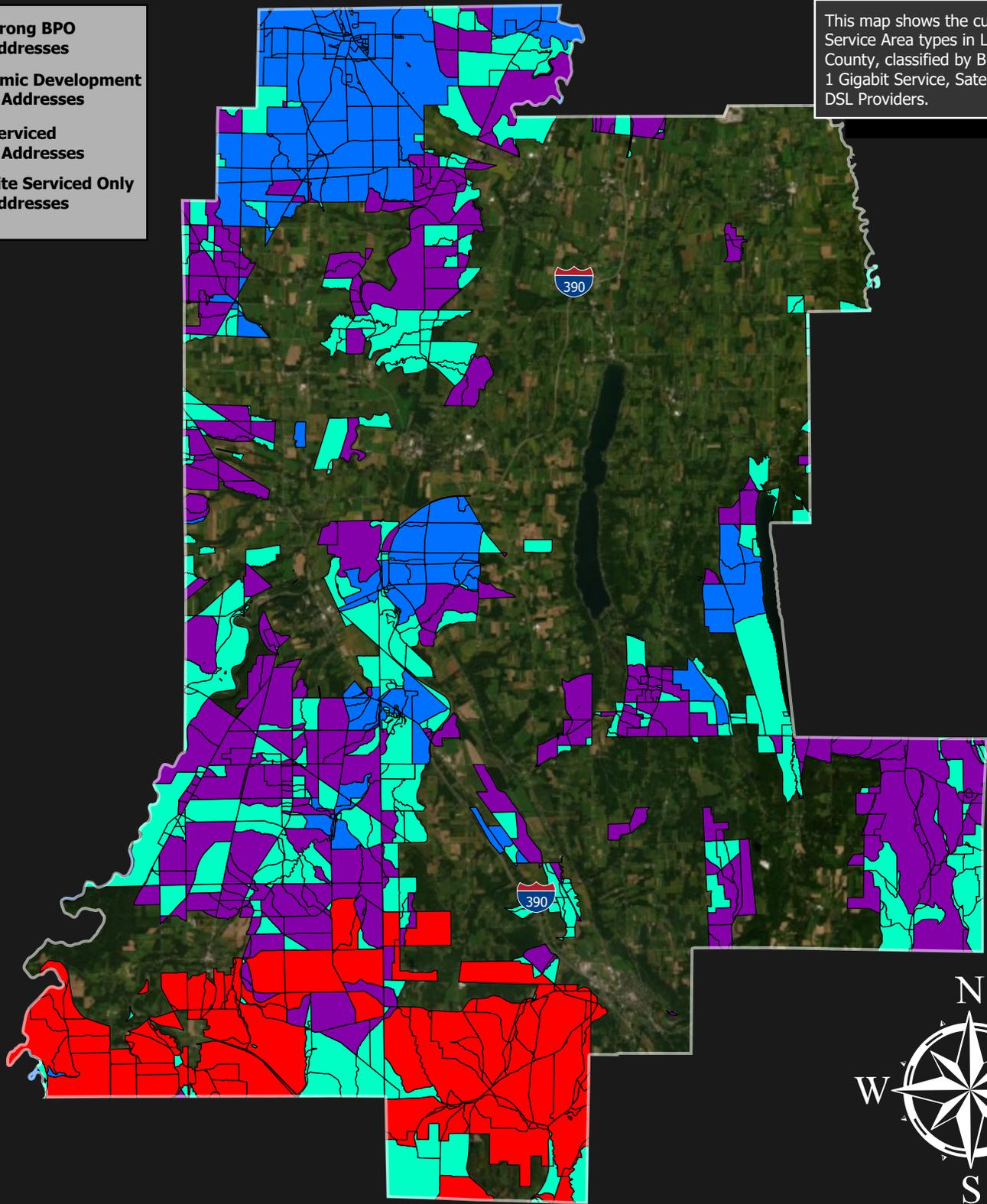
County of Livingston
 HUNT Broadband Network Design
 Livingston County



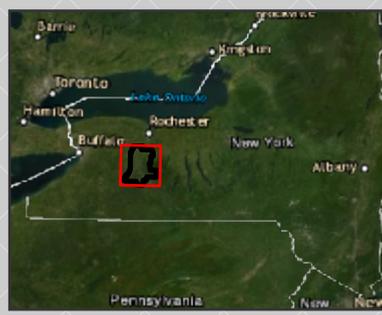
 **USDA Eligible (Satellite Excluded)**

- **Armstrong BPO**
933 Addresses
- **Economic Development**
2,410 Addresses
- **DSL Served**
1,384 Addresses
- **Satellite Served Only**
744 Addresses

This map shows the current Service Area types in Livingston County, classified by BPO Awards, 1 Gigabit Service, Satellite, and DSL Providers.



Service Map in Livingston County
 County of Livingston
 HUNT Broadband Network Design
 Livingston County



- **Armstrong BPO**
- **Economic Development - No Sat or DSL**
- **USDA - Satellite Served Only**
- **USDA - DSL Served**



APPENDIX F

NON-COLLUSION BIDDING CERTIFICATE

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid, each party there to certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor; and

3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit, a bid for the purpose of restricting competition.

In compliance with this invitation for bids, and subject to the conditions thereof, the undersigned offers and agrees, if this bid is accepted within (30) thirty days from the date of opening, to furnish any and all of the items upon which prices are submitted.

FIRM NAME

ADDRESS

SIGNED BY

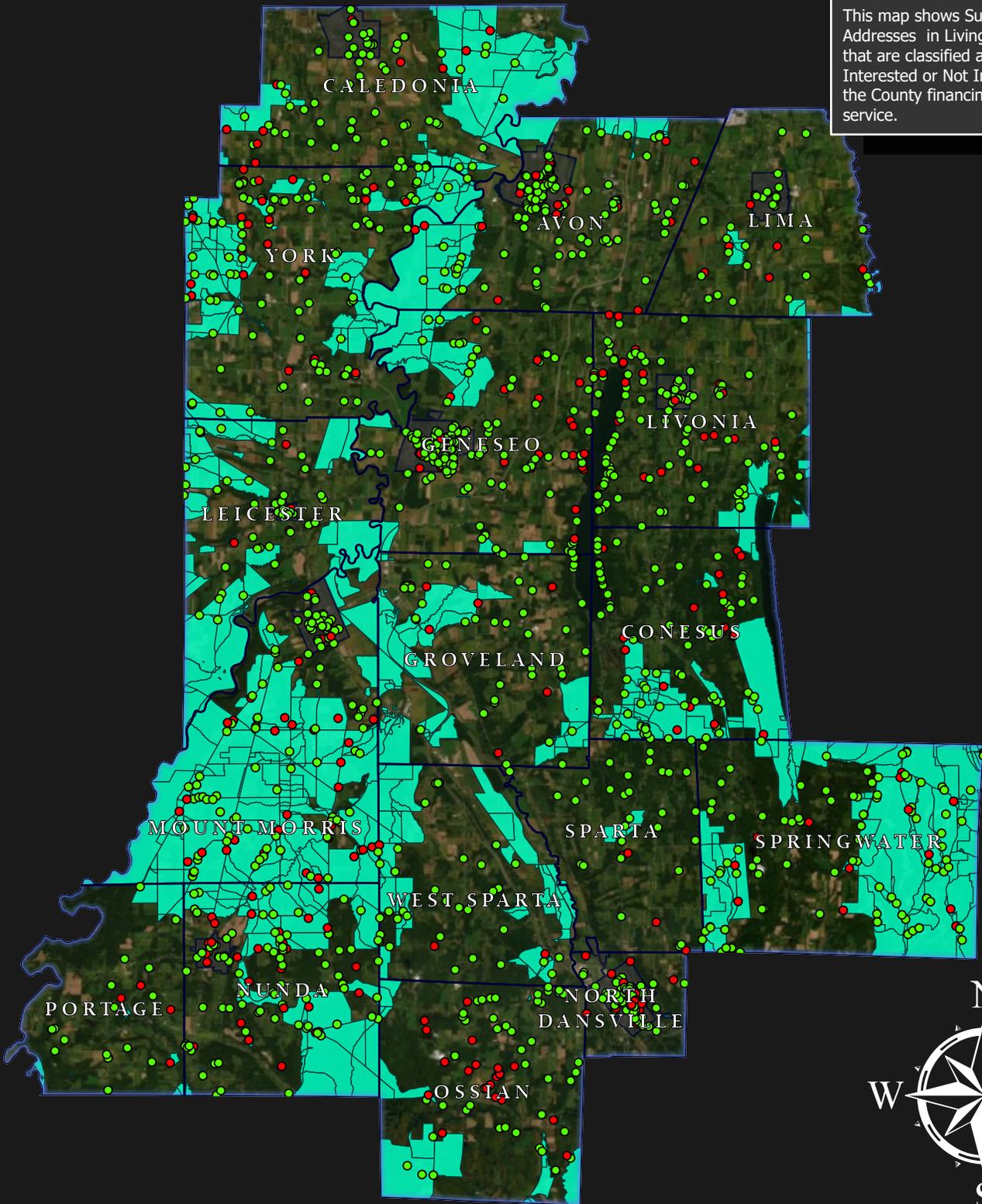
TITLE

DATE

TELEPHONE

APPENDIX G

This map shows Surveyed Addresses in Livingston County that are classified as either Interested or Not Interested in the County financing internet service.



Addresses Interested in County-Financed Internet

County of Livingston
 HUNT Broadband Network Design
 Livingston County



Should Livingston County Finance?

- No
- Yes

Boundaries

- Towns
- USDA ELIGIBLE