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WD

August 23, 2021 Meeting

Selectmen present: William Daniels, Douglas Bersaw and Andrew Wallace
Public Present: Kathryn McWhirk
Non-Board member present: Susan Harrington
Meeting opened at 5:30 pm

Daniels moved; Bersaw 2nd; Board voted to approved the manifest dated August 23, 2021 for week of August 13, 2021-August 19, 2021 in the amount of: $ 141,067.90 for payroll/accounts payable. This manifest also includes the monthly payment to the Monadnock Regional School District in the amount of $127,000.00.

Bersaw moved; Daniels 2nd; Board voted to approve Yield Tax for Map 405 Lots 039 and 041-436 Old Homestead Hwy.

Wallace moved; Bersaw 2nd; Board signed letter notifying Map 405 Lot 093 190 Fish Hatchery Road that their Building Permit has expired and we have not received an Occupancy Permit, contact office.

Driveway permit received from the State of New Hampshire Department of Transportation for paving driveway at Map 414 Lot 018-390 Athol Road.

Email from resident Maureen Schorr to the Richmond Selectmen. Board read and took under advisement.

Email from Maureen Schorr a member of the Morgan Reserve Association stating the Morgan Reserve Association would like to engage in a process of research only regarding the designation of a "compact part of town". Ms. Schorr provided a map of the Morgan Reserve and an email stating Law Enforcement Officers have visited the Reserve.

Email from Dixie Gurian regarding a drainage problem at the Richmond Public Library where the water has no place to go so it has eroded the pavement and exposed the culvert. The Road Agent has been contacted to protect the area so people do not go near it. The DOT has also been notified and will need to empty the drain pipe of sand and will hopefully be start working again.

Harrington advised the Town of Richmond would be receiving the first of two payments from the Local Fiscal Recovery Funds in the amount of $58,835.58 in the next five to seven days. The 2nd payment in the amount of $58,835.58 will be received in the summer of 2022. The Local Fiscal Recovery Funds is from the State under the American Rescue Plan Act (ARP). The $58,835.58 will be encumbered to provide a fund for future broadband development in town.

Harrington advised Board of zoning violations, missing building permits, missing occupancy permit and possible misuse of land in Current Use for 215 Fay Martin Road Map 412 Lot 014.

Board discussed town owned property on Activity Road and information from attorney. Bersaw moved; Daniels 2nd Board voted to abolish the current Sale of Tax Deeded Property procedure that was adopted 06/26/16. Board approved the sale of Map 402 Lot 041 to Elton Blood Jr.

Bersaw discussed conversation with the Town Clerk, Karen O'Brien regarding the state law that the Town Clerk must deposit state funds every day. Due to the size of Richmond, the State of New Hampshire has approved a deposit schedule for Richmond to deposit on Tuesdays and Thursdays due to the amount of the state deposit. The State has a help desk with Tuesday evening hours available. In an effort to better serve the Town, Town Clerk, Karen O'Brien would like to change the hours to NO MONDAYS, Tuesdays 12 pm-6:30 pm, Wednesdays 9am-12pm and 1pm to 4pm, Thursdays 8am to 12pm in order to offer evening hours to residents.

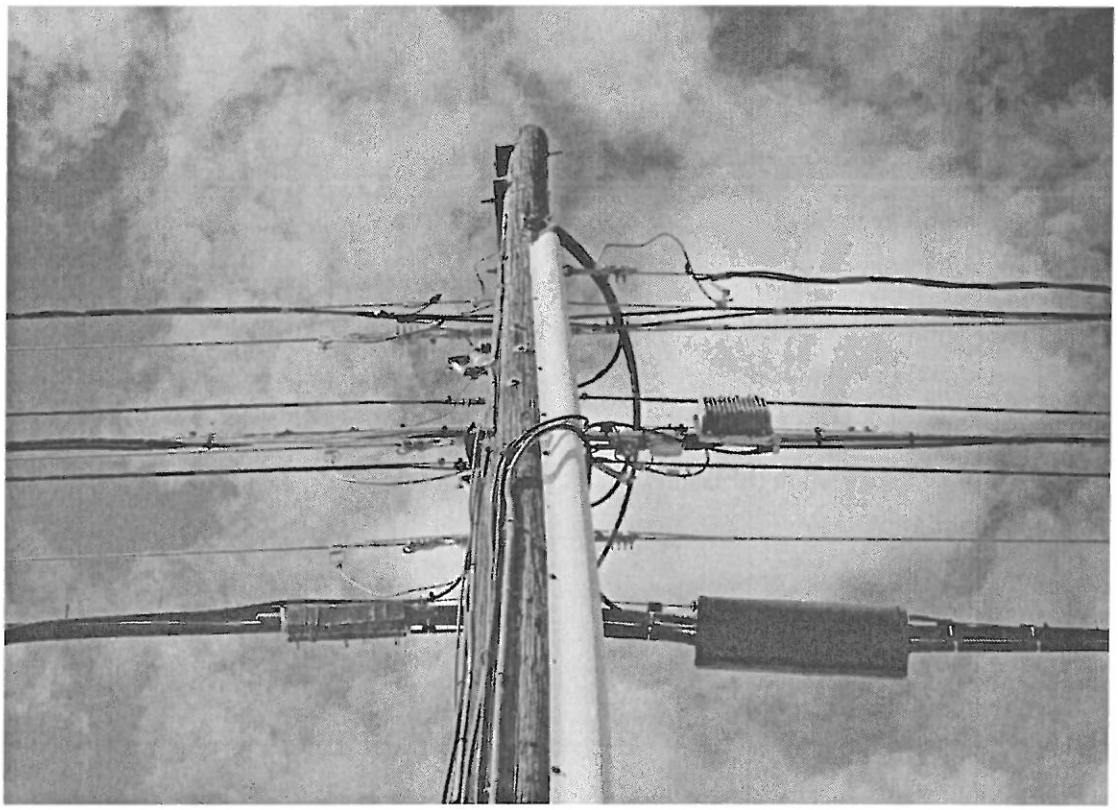
Board reviewed the Winter Maintenance Agreement for 2021-2022. Harrington to contact Home-Land Landscaping with a question regarding salt and report back to the Board.

Appointments

Henry Underwood from Southwest Regional Planning Commission met with the Board to discuss Broadband Initiatives. Board will be meeting on September 28th at 7:00 at the Veteran's Memorial Hall with the volunteers of the Broadband Committee. The Monadnock Broadband Implementation Guide is attached to the minutes.

Meeting adjourned at 8:18 p.m.
Respectfully Submitted,
Susan Harrington

Monadnock Broadband Implementation Guide



Southwest Region Planning Commission
October 2020

SWRPC

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Acknowledgements

This guide draws heavily on material developed by local broadband champions in the Monadnock Region, especially volunteer broadband committee members who have led broadband implementation projects in their local communities. It also relies on the generosity and experience of Monadnock Broadband Group members and guest presenters.

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Cover photo via unsplash.com

Introduction

Why Broadband?

If you're reading this guide, you probably don't need to be convinced. Broadband is essential to a prospering community in the 21st century. High-speed internet connectivity is critical for fostering economic development, ensuring public safety, providing access to educational opportunities, providing telehealth services, improving property values, and more. Much as electricity became a part of daily life in the early 20th century, broadband is today becoming increasingly indispensable for conducting routine activities and meeting basic needs.

Even though you may be well aware of the importance of broadband access, it's useful to clearly articulate the reasons why. Presumably, you're interested in helping expand broadband access in your community. Some of your neighbors may need help understanding the full range of benefits that broadband can bring. Here are just a few reasons that may motivate a community to pursue expanded access to broadband:

- Remote workforce. Even before the coronavirus pandemic, the percentage of employees working remotely was growing quickly.[1] The public health emergency has hastened that trend. If communities want to attract and retain these footloose workers, high-speed internet is a must-have.
- Economic activity. Firms in certain economic sectors won't consider expanding or relocating to an area if high-speed internet isn't available. Opportunities for at-home businesses may be curtailed by poor internet connectivity.
- Property values. Lack of broadband can be a dealbreaker for many homebuyers.
- Education. Without broadband, accessing remote learning opportunities, conducting research, and participating in trainings can be difficult or impossible.
- Telehealth. An expanding array of medical services can be accessed online, but only if the necessary bandwidth is available. Telehealth services are facilitating remote mental health counseling, video consultations with physicians and specialists, and transmission of vital signs and other biometric data. Telehealth could prove to be especially important in sparsely populated areas, where access to care would traditionally require long trips to hospitals or other medical facilities.
- Quality of Life. Broadband can contribute to overall quality of life, for the reasons listed above, as well as others. Staying connected with physically distant family members via video calls serves as a prime example.

What This Guide Is and How to Use It

This guide is written with a broad audience in mind. It's intended to serve as a resource for local volunteers who might have little or no experience with broadband-related issues or the workings

[1] According to Gallup, from 2012 to 2016, the number of employees working remotely rose from 39% to 43%. https://www.gallup.com/workplace/238085/state-american-workplace-report-2017.aspx

of local government. It also, however, contains plenty of information that more experienced town officials or staff will find useful.

There isn't a single recipe for broadband buildout that will be right for every community. Different communities have different broadband-related challenges and needs and thus will need to evaluate which approach works best for them.

This guide doesn't claim to cover each and every strategy a community might use to expand broadband connectivity. There are a variety of options, with new state and federal policies constantly changing the array of tools available. This guide briefly summarizes some of those options, and, in future editions, may address additional broadband implementation techniques in further detail. For now, however, this guide focuses on what's known as the "Chesterfield Model." This approach was enabled through the passage of legislation that modified New Hampshire's Municipal Finance Act (RSA 33) in 2018. Prior to the changes, state law limited the ability of municipalities to issue **general obligation bonds** for broadband infrastructure.

> *Tip – terms in* **green bold font** *are included in a glossary at the end of the guide.*

The "Chesterfield Model" is a particular pathway that some municipalities in the Monadnock Region have used to expand broadband access. In short, the Chesterfield Model is an approach to developing broadband infrastructure based on a **public-private partnership**. On the public side, a town or city issues general obligation bonds to fund all or a portion of the costs to develop the network. On the private side, an internet service provider (ISP) builds the network and collects the value of the interest and capital of the bond by levying a surcharge on subscribers. The model is named after the Town of Chesterfield, the first town in New Hampshire to implement it.

While the Chesterfield Model has worked for some towns, it may not be an appropriate or the optimal pathway for every community. The first three sections of the guide focus on preparatory steps that every community would be advised to take prior to deciding on a particular approach to expanding broadband access.

The fourth section briefly summarizes a variety of broadband implementation models and some factors your community might want to consider when choosing the best path forward. It then introduces the Chesterfield Model, providing some history and context.

The subsequent sections focus on the steps a community should take once it has decided to use the Chesterfield Model, from developing a request for proposals to issuing bonds to finance the project.

This guide is intended to serve as just that—a guide. It is not a replacement for qualified legal counsel. It is not a recipe that can be followed without fully considering the unique circumstances of your community. Hopefully, however, by gathering resources into one place and documenting the experiences of communities that have already gone through the process, this guide can lower the barrier for other communities interested in exploring a similar course.

Forming a Broadband Committee

Why Form a Broadband Committee?

Rural communities that take a passive approach to broadband development often fail to attract private investment in network infrastructure. Incumbent internet service providers (ISPs) often lack a motivating incentive to adopt technologies that deliver improved broadband capacity and speeds. Potential competitors usually see a losing economic prospect in building geographically extensive networks to serve small, sparsely distributed populations. Rural areas that simply wait for the market to deliver broadband service may continue to do just that—wait.

In rural areas, a more proactive approach is often needed. A group within the community must be willing to spearhead a concerted effort to make broadband service a reality. From building community support to implementing a particular build-out strategy, this group will need to volunteer time to usher the process forward. In many cases, the effort required will be too great for existing municipal committees, such as the Planning Board or Board of Selectmen, to assume these additional responsibilities on their own. A new group is usually required—a Broadband Committee.

Assembling the Committee

To gather volunteers for a broadband committee, consider reaching out to individuals already within your social or professional network, as well as fellow residents with whom you may not already have a connection. Broadband buildout projects require broad community buy-in, so there may be advantages to assembling a committee that represents a wide segment of the population. You may want to connect with local staff or officials to see whether they're aware of residents already working on the issue or interested in doing so. Community Facebook groups can also serve as a forum for linking up with potential volunteers—at least one broadband committee in the Monadnock Region has started with a Facebook post followed up with a cup of coffee at the local café.

Recruiting volunteers with a variety of strengths can help ensure the group as whole has the skills it needs to move the project forward. Useful skills include:

- Presentations and Public Speaking – Most broadband implementation strategies, including the Chesterfield Model, will require at least a few public hearings. The committee will benefit from the participation of a member comfortable pitching the project to fellow residents at public hearings and other forums.
- Project Management – Broadband implementations projects include a number of steps and moving pieces. A detail-oriented committee member that can keep track of it all will help the project stay on the rails.
- Promotion and Marketing – Getting the word out about public meetings and convincing neighbors to turn out to vote will require a variety of outreach tactics and someone to spearhead communications.

- Data Organization and Analysis – Your committee may want to consider data collections efforts like conducting a community survey or mapping service information supplied by ISPs. A committee member with the skills to turn that data into useful insights will help the committee make good decisions and effectively communicate the rationale behind those decisions to the wide public.
- Legal and Contract Review – Although it's by no means necessary to have a lawyer as a committee volunteer, recruiting a member with some experience reviewing contract language will likely serve the project well.

If your committee doesn't have a member with each and every skillset, don't worry. The most important characteristics that a committee needs are an eagerness to learn, willingness to collaborate, and the conviction to see the process through.

Committee Structure

A key decision that each Broadband Committee needs to make is how it want to organize itself. Should it become an officially recognized municipal committee, serving at the pleasure of the Board of Selectmen or another board or committee? Or should it remain an independent group? Towns have pursued broadband projects using both approaches. Both options offer pros and cons that each Broadband Committee must weigh according to their particular circumstances.

Establishing a broadband committee as an official municipal body requires action by the Board of Selectmen (or another appropriate board/committee/council), who must vote to create the committee and appoint members.[2] The charge of the broadband committee is to then consult with and advise the Board of Selectmen on matters pertaining to broadband. In most cases, the broadband committee cannot itself take official action on behalf of the municipality it represents. It cannot on its own, for example, issue a request for proposals (RFP) or hold a bond hearing—both important steps when implementing the Chesterfield Model and potentially other models of broadband build-out. In cases where official town action is required, the Broadband Committee advises the Board of Selectmen (or other applicable governing body), who then decides whether or not to proceed.

Establishing an official municipally-sanctioned committee may offer the advantage of legitimating the work of the committee and garnering the attention of community members in a way that might prove challenging for a more informal group. Coordinating as an informal group, on the other hand, offers a level of flexibility not always available to official public bodies. Official, municipally-sanctioned advisory committee must comply with New Hampshire public meeting law (RSA 91-A). Consequently, meetings of official advisory committee must be open to the public and noticed in advance. In addition, members of the committee are prohibited from communicating on business matters outside of properly noticed public meetings. Informal

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[2] Municipalities considering creation of a town-sanctioned advisory committee should consult with municipal staff/counsel to confirm proper protocol for advisory committee establishment. While in many communities the Board of Selectmen may be the most fitting option, other municipal boards/committees may serve as an appropriate public body for establishing an advisory broadband committee. Differing forms of local government (e.g. city/town council) will also affect decision making on the matter.

groups also have greater freedom in determining their own membership, whereas advisory committees are appointed by the establishing board/committee.

Assessing Community Readiness and Need

The Utility of a Municipal Survey

Perhaps you've had conversations with neighbors about how it's impossible to video conference with clients while working from home. Maybe you've commiserated with fellow parents about how your children can't participate effectively in remote learning opportunities due to slow internet connectivity. Maybe you've had a friend or family member who was prevented from accessing telehealth services because they didn't have broadband. Maybe you've seen nearby properties sit on the market because broadband was unavailable onsite.

These stories are critical to advancing dialogue about developing local broadband solutions. But do they represent the community as a whole? What are the broadband challenges and needs not only of those on your street or within your social circle, but of the general population in your town or city? A municipal survey can help provide a comprehensive picture of broadband challenges in your community. It can also help document top broadband-related priorities and inform decisions about which broadband deployment model would best fit local needs.

Developing a Survey to Meet Local Goals

A municipal broadband survey can cover a broad range of topics. The particular questions included or the wording used will vary from community to community. Below is a list of topics that you may want to consider covering within a survey. A model survey is provided in Appendix A for communities interested in using a template. Example surveys from specific towns available online also serve as useful references.[3]

- Respondent type. Some municipal surveys target residential households, others businesses, and some target both. Residential households and businesses may have different broadband challenges and needs, so it's useful to collect information about both. Also, in some areas, certain levels of broadband service may be available to commercial clients only.
- Location. The respondent's street address will help you assess the geographic distribution of broadband availability and gaps across the community. Location data could also be important for verifying the accuracy of any vendor-provided data that you gather later (see "The Request for Information (RFI)," on p. 12).
- Current ISP and broadband technology. Asking respondents to indicate advertised maximum upload/download speeds is also important for assessing the level of service.

[3] http://www.swrpc.org/broadband/resources

Keep in mind that household may access the internet through one or more technologies (cellular, **fixed wireless**, satellite, DSL, cable, etc.).

- Monthly internet costs. Gathering information about how much respondents pay for internet can be useful for assessing the feasibility of any new services that are proposed in the future.
- Internet usage. What do respondents use the internet for? Also, what *would* they use the internet for, if their connection was improved?
- Phone service information. Broadband providers sometimes bundle internet with phone service. Assessing potential for bundled internet and phone service could be important for determining the feasibility of certain broadband provider business models.
- Reliability and quality of service. Within the survey, you can include a hyperlink to an online speed test that can measure download and upload speeds. A question that gets at experiences with reliability may also be beneficial.
- Demographic information. Collecting some demographic information, like the respondent's age and income level, will help you determine whether survey responses represent the wider community evenly. If there are privacy concerns, these questions could be optional.

Distributing and Promoting the Survey

Reaching a wide cross-section of the community will likely require distributing the survey through a variety of media and communication channels. Using an online survey platform like SurveyMonkey as the primary distribution tool will reduce the time needed to process and interpret results.[4] Platforms like SurveyMonkey allow users to promote the survey via a web link, social media posts, and/or e-mail distributions.

Although online survey platforms can enable you to reach a large number of people relatively quickly and for little or no cost, you may miss important unserved segments of the population if you rely entirely on internet-based promotion. Here are some other ideas for getting the word out about the survey:

- Post flyers/posters in your local library with a web link to the survey. Flyers might be strategically placed near library computer stations. If you have the time and capacity to process paper surveys, you could also place hard copies of the survey and a collection box at the library.
- If your town publishes a local newsletter, include information about the survey and its importance in a short blurb/article.
- Post flyers and potentially hard copies of the survey at town/city hall and other popular community properties (e.g. recycling/transfer center, community center, etc.).
- Work with your local school district to send flyers home with students and with other organizations that can efficiently reach large or particular audiences.

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[4] SWRPC may be able to acts as a resource for municipalities interested in using SurveyMonkey to distribute a broadband survey.

- An announcement at town meeting.
- Including a survey link on water/sewer bills, car registration renewal notices, or other mailings by local government.
- If available funds permit, consider distributing a flyer to every address in your community via "Every Door Direct Mail," a service offered by the U.S. Postal Service.[5] Alternatively, you could work with town staff to compile a list of all in-town mailing addresses and coordinate a town-wide mailing.

Interpreting and Presenting Results

Your survey has closed. The results are in. Now what?

If you used a platform like SurveyMonkey, it's easy as a click of a button to generate a report with charts and graphs visualizing survey results. Consider sharing the report on the website of your town or city. If your broadband committee has a webpage, make sure to share the report there too.

A key aspect of interpreting results is determining, to the best of your ability, who the response represents. Does the response represent an even geographic distribution of residents and/or businesses? Does it represent only certain age groups or income brackets? If your survey asked respondents to supply a street address, you could considering mapping responses using the process described under "Mapping Unserved/Served Areas" on p. 14. To assess whether survey responses underrepresent certain demographic groups, you could compare results with figures from the U.S. Census.[6]

Once you have survey results in hand and have a good idea of who those results represent, you could consider holding a public forum to share what you've learned.

Other Forms of Data Collection

A municipal survey can function as a useful data collection mechanism, but it isn't the only way to gather broadband-related information. Additional ideas include:

- Data collected by school districts. In the shift to remote learning due to the coronavirus pandemic, most school districts assessed the readiness of district families to access online learning tools. Information collected through school district surveys may provide insights on the broadband-related challenges of families with school-aged children. Availability of school district data may prompt you to target other groups for further outreach efforts.
- Public forums or listening sessions. Some community members may prefer to offer input in a conversational setting rather than a survey. A public forum or listening session could provide an opportunity not only to gather additional information, but to develop more

[5] https://www.usps.com/business/every-door-direct-mail.htm.
[6] You can access Census data at https://data.census.gov/cedsci/. If you have questions about how to find or download certain Census information, SWRPC may be able to provide assistance.

widespread understanding among community members about the potential benefits of broadband.

- Data provided through cable franchise agreement audits. Local governments periodically renew **cable franchise agreements** with incumbent providers. As part of that renewal process, the franchising local government can request information from the provider, including the geographic extent of the cable TV network. During the audit, the franchising locality cannot ask questions specific to internet service, but it's reasonable to infer that locations with cable television service also have access to cable internet. Your local government may have data from a recent audit or could have the opportunity to request new data during an upcoming audit. For more information about cable franchise agreements, a webinar produced by the New Hampshire Municipal Association serves as a good resource.[7]

Requesting Information from Providers

While the data sources described above can provide a lot of useful information about broadband challenges and needs, they don't give a comprehensive, address-by-address picture of where broadband is available and where it isn't. Collecting data on exactly which properties do or do not have broadband access is important for assessing which broadband implementation model might offer the best fit for your community. Currently, the only place to obtain this information is directly from incumbent ISPs.

A broadband committee or other municipal representative could attempt simply asking for ISP data through an informal phone call or e-mail, but there's no track record of that method yielding results. Monadnock Region communities who have successfully gathered incumbent data have done so through an official process established by New Hampshire State Law.
That process, known as a "Request for Information," is described in detail below.

The Request for Information (RFI)

In the context of broadband implementation in New Hampshire, a **Request for Information** (RFI) is a formal request by a municipality to incumbent ISPs.[8] The purpose of the RFI is to request information about which locations in a given municipality are either "**served**" or "**unserved**" by broadband. New Hampshire statute defines broadband by referencing data transmission rate standards set by the Federal Communications Commission (FCC).[9] At the time of writing, the FCC requires a minimum download speed of 25 Mbps *and* a minimum upload speed of 3 Mbps in order for a service to qualify as broadband.

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[7] https://www.nhmunicipal.org/webinar/what-municipal-officials-need-know-about-cable-tv-franchising-today
[8] RSA 33:3-g III
[9] RSA 38:38 I(c)

State law requires that municipalities send an RFI to incumbent providers prior to issuing **broadband infrastructure bonds**, which will be described in further detail below, under "Authorizing and Issuing Bonds." Even for municipalities, however, considering other broadband implementation mechanisms, information gathered through the RFI process is invaluable for identifying where broadband service is available and where there are gaps. Critically, data provided by ISPs will specify served and unserved locations at the address level. In New Hampshire, there are no public data sources with the same level of granularity.

Issuing the RFI

In order to issue an RFI to incumbent ISPs, you need to identify who your community's incumbent ISPs *are*. You may already be familiar with the ISPs operating in your town/city, but, if you're not, the FCC Broadband Map is a good place to check.[10] The map shows both the wireline providers serving a given geographic area, as well as satellite and fixed wireless services. Towns who have conducted an RFI to date have focused on **wireline** providers, which will be labeled "**Fiber**," "Cable," or "**ADSL**" on the map interface.

Figure 1 – Search results from the FCC Broadband Map. Darker blue areas represent census blocks with more providers. Specific ISPs serving the census block highlighted in purple are listed on the right.

Once you've confirmed which ISPs are operating in your community, identifying the appropriate contact person for each ISP is the next step. To do so, consider contacting broadband committees in nearby towns who have already gone through the RFI process.[11] Vendors themselves would also likely be able to direct you to the appropriate contact person.

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[10] https://broadbandmap.fcc.gov/#/

[11] To date, known Monadnock Region towns who have conducted an RFI include: Chesterfield, Dublin, Francestown, Hancock, Harrisville, Rindge, Temple, Walpole, and Westmoreland.

The next step is to work with your Board of Selectmen (or other governing body) to distribute the RFI to incumbent ISPs. The RFI should be sent by the governing body of the municipality or a designee (e.g. municipal staff). Broadband committee members can help move the process along by drafting letter language.

At minimum, the letter should request addresses for served and/or unserved locations, specifying the data transmission rate required by statute qualify as "served." The letter should also stipulate that the recipient is afforded two months to respond, per State law.[12] In addition to requesting served/unserved addresses, a municipality could consider requesting additional information, such as specific data transmission rates available at each location. There is no guarantee or requirement, however, that an ISP will supply additional data. An example letter from the Town of Chesterfield provides a good reference.[13]

In the RFI letter, be specific about how respondents should provide requested information. In order to reduce the amount of effort needed to process submitted information, require that respondents submit data in a machine-readable format, such as an Excel spreadsheet. If the letter leaves room for interpretation, you may receive data in a format difficult to work with or interpret, such as a rudimentary street map with served streets highlighted (one town has reported receiving such a response).

ISPs aren't bound by law to respond to an RFI. A new law passed in 2020, however, provides an important incentive for ISPs to do so.[14] If an ISP fails to respond to an RFI, then locations served by that provider are considered unserved (unless served by another provider who responded to the RFI).

Mapping Unserved/Served Areas

Data provided by ISPs responding to the RFI will likely come in a list of addresses of served and/or unserved locations. Mapping these addresses will help visualize where broadband is and isn't available.

The Google My Maps platform provides a free option for automatically mapping lists of up to 2,000 addresses at a time. (You will need to first create a Google account to use the service.) Online documentation provides guidance on how to upload and visualize data.[15] Depending on the format of the address data provided by the ISP, you may need to add the name of your town and the encompassing zip code in order for Google to geolocate each address accurately. It's also important to be aware that Google's geolocation service isn't perfect. In some cases, it may locate a street address at some distance away from the actual property in question. The map below in Figure 2 provides an example of a map created with Google My Maps to depict served and unserved locations.

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[12] RSA 33:3-g III

[13] http://www.swrpc.org/files/Argent%20Letter%20RFI.pdf

[14] HB 1111 (2020). For bill text, see http://gencourt.state.nh.us/bill_status/billText.aspx?sy=2020&id=1179&txtFormat=pdf&v=current

[15] https://www.google.com/earth/outreach/learn/visualize-your-data-on-a-custom-map-using-google-my-maps/#import-your-data-1

If you can enlist the help of someone with the technical capacity, you could consider using the free, open source software QGIS to map data received through the RFI.[16] This was the approach taken by the broadband committee in Francestown, NH. Committee members procured, via the town administrator, Emergency 911 address data from the NH Department of Public Safety. Emergency 911 address data usually offers a higher level of geographic accuracy than Google's geolocation service, thus allowing for more precise mapping of served/unserved locations when cross-referenced with broadband availability data collected through the RFI. Some providers may be willing to supply service availability data in a format easily mapped using software like QGIS.[17]

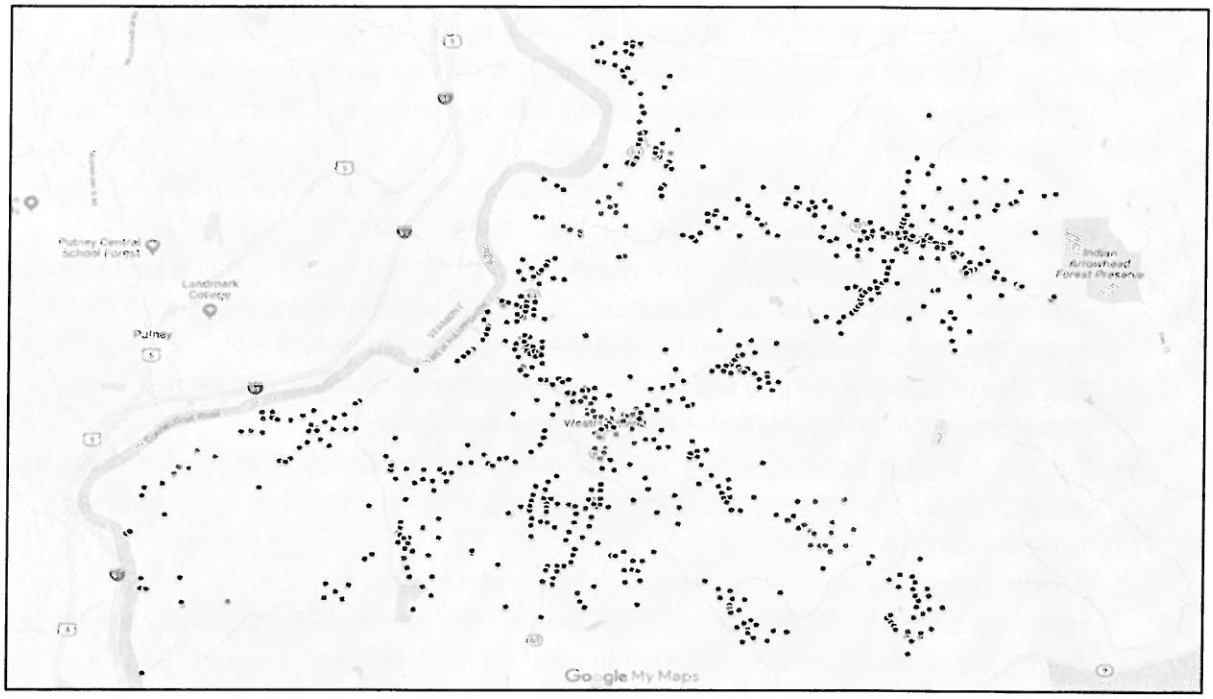

Figure 2 – Map of served and unserved areas in Westmoreland, NH created with data received through the RFI process conducted in that town in 2019. Green dots represent "served" locations while red dots represent "unserved" ones.

Selecting a Broadband Deployment Strategy

Weighing Your Options

After using a municipal survey, RFI, and other measures to assess broadband challenges and needs, your community will have a better knowledge base for evaluating how well different implementation models meet local goals and conditions. This guide focuses on a particular broadband buildout strategy—the "Chesterfield Model"—but before discussing that strategy in detail, it's important to acknowledge that there's more than one way to build or expand a broadband network, each with its own pros and cons. This guide focuses on the Chesterfield

[16] https://qgis.org/en/site/
[17] E.g. shapefiles, which use a file extension of ".shp"

Model in order to document a strategy that has a proven track record of expanding broadband access in the Monadnock Region. The menu of available options, however, is constantly changing as laws, policies, and technologies evolve. Before pursuing a particular implementation strategy, your community may want to articulate the parameters and goals of implementation in order to assess the merits of that strategy. Factors to consider include:

- Tax implications. Is the community willing to raise taxes to finance the project or are increased property taxes off the table?
- Equity. Is ensuring that broadband access is *affordable* to all community members important, or is expanding the geographic coverage area the primary objective?
- Competition. Is fostering competition among multiple broadband providers a priority, or is the community willing to partner with a single vendor, perhaps at the cost of decreasing consumer choice?
- Net neutrality. Is it important that the network accommodates all online traffic equally, irrespective of user, content, website, platform, or application?
- Local control and responsibility. How much authority does the community want to retain over network management and operations? Does the community want to own network assets or avoid assuming ownership and the attending responsibilities?
- Risk. How much exposure to financial risk is the community willing to tolerate? Some broadband deployment strategies may be riskier than others.
- Capacity for project management. To what extent does municipal staff have the capacity and experience to provide oversight and represent municipal interests on a broadband implementation project?
- Regional associations. Your community already participates in a number of regional and statewide affiliations to provide essential services like education, public safety and more. There are broadband service models that offer similar functions by aggregating the demand from multiple areas.

A detailed discussion of each and every broadband implementation model is beyond the scope of this guide, but for communities interested in considering a range of strategies prior to committing to a particular approach, the list below summarizes a variety of models and sources of support. Some options may be more applicable than others to the particular circumstance of your community.

- Communication districts. In 2020, New Hampshire enacted new statute that allows two or more municipalities to form a "communication district," a separate authority dedicated to the creation or maintenance of communications infrastructure.[18] The legislation was adopted with the recognition that many rural towns lack the resources or population to attract infrastructure providers or service suppliers. Communications districts—similar in structure to other special districts like water or sewer districts—provide municipalities with a familiar mechanism for joining forces on broadband network buildout and management.

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[18] HB 1111 (2020). For bill text, see http://gencourt.state.nh.us/bill_status/billText.aspx?sy=2020&id=1179&txtFormat=pdf&v=current.

The legislation was enacted only weeks prior to the development of this guide and has yet to be tested in practice. A similar approach, however, has been used in Vermont for quite some time and with good results.[19]

- Coordination/negotiation with incumbent providers. Prior to pursuing a particular implementation strategy, it may be worthwhile contacting incumbent ISPs to communicate local interest in expanding broadband connectivity and to learn whether incumbents have any plans to improve service. Coordination with incumbents may be especially worthwhile in cases where unserved properties are limited to select pockets within a community. There may be opportunity to partner with an incumbent to extend service to these pockets, perhaps with the support of grants and other funding sources.
- Federal opportunities. There are a number of federal funding sources that support the construction of broadband networks. Below are a few examples. For an extensive inventory of federal programs, Broadband USA's "Broadband Funding Guide" serves as a good reference.[20]
    - USDA ReConnect Loan and Grant Program.[21] To date, the Monadnock Region has seen one project funded by the program, fiber network infrastructure developed by Granite State Telephone in pockets of Stoddard and surrounding towns. Until recently, only areas with service slower than 10/1 Mbps were eligible for assistance. In September 2020, however, USDA changed the eligibility threshold to 25/3 Mbps, perhaps expanding the number of communities who can utilize the program.[22] At least one Monadnock Region municipality has received guidance from USDA that the ReConnect program is likely most well-suited for private sector applicants or perhaps public-private partnerships.
    - USDA Distance Learning and Telemedicine Grants.[23] A grant program that focuses on, among other activities, improving broadband and computing infrastructure at rural schools and hospitals. Projects that include network buildout to educational or medical facilities could potentially yield secondary benefits to nearby residential or commercial properties.
    - Norther Border Regional Commission (NBRC) Economic and Infrastructure Development (EID) Investment Program.[24] The NBRC is a federal-state partnership whose service area includes select counties across northern New England and New York State. Cheshire County was added to NBRC's service area in 2018. NBRC's EID program supports a range of infrastructure development, including broadband networks. Funding is disbursed on a reimbursement basis and NBRC currently requires a 50 percent match.

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[19] The State of Vermont Department of Public Service provides an overview of "Communications Union Districts" at https://publicservice.vermont.gov/content/vermont-communications-union-districts
[20] https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/bbusa_federalfunding_all_190409.pdf
[21] https://www.usda.gov/reconnect
[22] https://rd.usda.gov/sites/default/files/USDARD_SA_SmartUtilityAuthorityFinalRule.pdf
[23] https://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants
[24] https://www.nbrc.gov/content/economic-infrastructure-development-investments

- U.S. Economic Development Administration (EDA) Public Works and Economic Adjustment Assistance (EAA) programs.[25] These related programs provide flexible support for a range of infrastructure development activities. The Public Works program places explicit emphasis on the design, engineering, and construction of telecommunications infrastructure. The EAA program could potentially support similar activities, along with more preliminary planning work, e.g. feasibility studies. Interested parties are recommended to contact the EDA New Hampshire field representative for more information.[26]
- Community Development Block Grant (CDBG) Program.[27] Funded through the U.S. Department of Housing and Urban Development and administered in New Hampshire by the Community Development Finance Authority, the CDBG Program supports a variety of infrastructure projects directed at low and moderate-income people. Although to date CDBG has not been tested in New Hampshire as a funding source for broadband buildout, it has been utilized as such in other parts of the country.
- FCC Rural Digital Opportunity Fund (RDOF) Auction.[28] A **reverse auction** process intended to subsidize broadband buildout in unserved areas. Since bidders must have a proven background in telecommunications infrastructure development, participation is effectively limited to established ISPs. The Phase I of the auction is scheduled to occur in the fall of 2020, with the date of Phase II to be determined. Although municipalities will typically not be eligible to participate, town/city representatives may want to inform themselves of eligible areas and whether incumbents or other providers plan to participate.[29]

- Non-profit organization. Some communities/regions have formed non-profit organizations to meet broadband needs left unaddressed by the private sector. ValleyNet in central Vermont provides an excellent example of a non-profit entity using a mission-driven approach to expand connectivity in a rural area.[30]
- Community-funded private enterprise. Residents in Lyme, NH formed LymeFiber, a Limited Liability Corporation (LLC), in order to improve broadband coverage.[31] The group has partnered with ValleyNet (referenced above) to build a fiber-to-the-home network.
- Rural cooperative. In other areas of the country, rural cooperatives originally established in the early 20th century to provide electrical service are now branching out to offer broadband. Since there are no electrical cooperatives that currently operate in the Monadnock Region, this approach may prove to be less applicable. It's worth noting, however, that the New Hampshire Electric Co-op, whose service area currently extends to

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[25] https://www.eda.gov/funding-opportunities/
[26] Visit the EDA contact directory at https://www.eda.gov/archives/2016/contact/
[27] https://resources.nhcdfa.org/programs/community-development-block-grant/
[28] https://www.fcc.gov/auction/904
[29] https://www.fcc.gov/reports-research/maps/auction-904-preliminary-eligible-areas/
[30] http://www.valley.net/
[31] https://www.lymefiber.net/

the northern edge of the Region, voted in 2020 to establish a new entity focused on expanding broadband connectivity.[32]

- Special assessment districts. New Hampshire municipalities are authorized to establish special assessment districts, which create a mechanism for funding public facilities by levying a special assessment on properties within a particular geographic area of a community.[33] Special assessment districts could offer an appropriate avenue for funding broadband improvements in specific unserved pockets. For example, if there's interest in an unserved neighborhood to contribute towards improved connectivity, but town-wide support is lacking, property owners could petition the municipal governing body to establish a special assessment district. If successful, improvements in the district could be funded—in whole or in partnership with a private vendor—by issuing bonds backed by the special assessment.
- Municipally owned and operated network. Some towns and cities develop and manage broadband networks as a government-run service. Most municipalities lack experience building and maintaining telecommunications infrastructure, and so this approach may prove to be prohibitively risky. Municipally operated networks, can, however, prove to be quite price competitive while at the same time offering programs that promote equitable internet access. Greenfield Community Energy and Technology (GCET) in Greenfield, MA provides an example of a municipally operated network in a nearby small city.[34]
- Municipally owned network, licensed to private providers. Some local governments have built the physical infrastructure necessary to expand broadband connectivity, subsequently licensing use of that infrastructure to any ISP who wishes to offer service over the network. The approach promotes competition, helping to control prices and offering consumers more options.
- Bank financing. The banking and financial community is paying increased attention to the importance of expanding broadband access. Many financial institutions recognize that the economic prospects of the communities they serve—and thus their own security and profitability—hinge on widespread broadband access. A number of policy mechanisms exist at the federal level that encourage banks to invest in broadband projects, especially in low-to-moderate income areas. In a 2018 publication, the U.S. Office of the Comptroller of the Currency summarizes some of these policy mechanisms—including the Community Reinvestment Act and New Markets Tax Credits.[35]
- State programs. In the past, New Hampshire hasn't typically offered funding support for broadband projects. After the passage of the U.S. CARES Act in 2020, however, the State dedicated $50 million of its allocation to "Connecting New Hampshire," an emergency

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[32] https://www.nhec.com/
[33] RSA 52-A. http://www.gencourt.state.nh.us/rsa/html/III/52-A/52-A-mrg.htm
[34] https://gcet.net/
[35] https://www.occ.gov/publications-and-resources/publications/community-affairs/community-developments-investments/nov-2018/pub-cdi-nov-2018.pdf

program aimed at expanding broadband connectivity. If additional federal stimulus becomes available in the future, the State may choose to offer additional support.[36]\

The "Chesterfield Model"

While recognizing that multiple approaches exist for expanding broadband connectivity, the remainder of this guide focuses on the steps necessary to implement a particular approach, a broadband implementation strategy known colloquially as the "Chesterfield Model." What is the Chesterfield Model? In short:

> *The Chesterfield Model is a public-private partnership. On the public side, a municipality finances network buildout in unserved areas through issuance of general obligation bonds. On the private side, a qualified vendor develops and operates the network, financing construction in any areas already served by broadband. The vendor collects a surcharge from service subscribers to cover the principal and interest on the bond. Consequently, even though the project or a portion thereof is financed with municipal bonds, project costs are not borne by the taxpayer.*

Why focus on the Chesterfield Model? First and foremost, municipalities in the Monadnock Region have pioneered use of the model to deliver impressive improvements in broadband connectivity. Acting as trailblazers, broadband committees that have implemented the model have learned a lot along the way. Within the Region, more is known about the specific steps necessary to implement the Chesterfield Model than about alternative models. Future versions of this guide could include more detail on alternative implementation methods as the regional knowledge base grows.

Enabling Legislation

The Chesterfield Model became possible in 2018, when Senate Bill 170 (SB 170) was passed into State law.[37] The bill modified sections of Municipal Finance Act (RSA 33), adding new language that dramatically improved a municipality's ability to issue general obligations bonds for purposes of financing broadband infrastructure development.

While SB 170 built a stronger legal foundation for issuing broadband infrastructure bonds, it left certain restrictions intact. Most notably, it left in place the stipulation that municipalities may issue broadband infrastructure bonds to finance improvements only in areas currently unserved by broadband.[38] If all or the vast majority locations in your community are already "served," municipal bonds may be able to finance only a small portion of a town-wide project, reducing the incentive for an ISP to participate.

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[36] https://www.goferr.nh.gov/covid-expenditures/connecting-nh
[37] For the full bill text, see http://gencourt.state.nh.us/bill_Status/billText.aspx?sy=2018&id=796&txtFormat=pdf&v=current.
[38] See "The Request for Information (RFI)" on p. 12 for discussion on how "broadband" is defined under NH statute.

Chesterfield, Other Monadnock Towns Lead the Way

The "Chesterfield Model" is named after Chesterfield, New Hampshire, the first municipality in the State to take advantage of the provisions included in SB 170 and to issue broadband infrastructure bonds. Prior to the passage of SB 170, the Town had explored the possibility of expanding broadband connectivity, but, in communication with ISPs, found that extending service would be financially unviable for a private vendor. If network improvements were to occur, they would need funding support through the Town's general fund, an unrealistic proposition.

The equation changed with the passage of SB 170. Once the new law went into effect in the summer of 2018, the Town immediately began to pursue the process laid out in the bill for issuing broadband infrastructure bonds. The Town distributed an RFI in July, 2018, and, using the information collected, mapped served and unserved locations. In November, the Town released an RFP soliciting proposals to expand broadband coverage to unserved areas. (The process for developing and issuing an RFP is described in greater detail in the next section.) The Town received five proposals from three vendors. The winning proposal, submitted by Consolidated Communications Incorporated (CCI), advocated for building a fiber optic network that covered not only areas unserved by broadband at the time, but all addresses located in the Town. Under the proposal, the Town would issue a $1.8 million bond to cover network development costs associated with unserved locations (330 homes) while CCI would finance the approximately $2.5 million in development costs associated with served locations (1,330 homes).

Another critical component of the proposal focused on how the bond would be paid. Principal and interest would be covered by a surcharge, not to exceed $10, levied on *subscribers* of the new network. CCI guaranteed to cover bond payments irrespective of how many customers actually signed up for the service. The fact that the bond is paid by *subscribers and not taxpayers* is a crucial element of the Chesterfield Model. The distinction is important to emphasize to community members who may be wary of taking on debt and worried about impacts on property taxes.

The bond was approved at town meeting in the spring of 2019 and the issuance was included in the summer bond sale conducted by the New Hampshire Municipal Bond Bank. (The bond issuance process is covered in detail under "Authorizing and Issuing Bonds," below.) Construction commenced in the fall of 2019 and by winter, CCI was connecting customers for service. The expedient deployment timeline perhaps highlights one of the benefits of the public-private model.

For those who are interested in learning more about the Town of Chesterfield's experience pioneering the SB 170 process, additional detail can be found in a recorded presentation by Brad Roscoe, the local broadband champion who spearheaded the project.[39]

Since the development of the Chesterfield network, several towns in the Monadnock region have followed a similar path. To date, five other communities have reached the point in the SB 170

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[39] https://www.youtube.com/watch?v=9TfA7rSWpdM&feature=youtu.be

process where they have chosen a partner vendor and have approved a bond sale at town meeting. All five towns elected to partner with CCI to build town-wide fiber-optic networks. Key metrics for each project are summarized below, in Table 1.

Table 1 – Key Metrics of Recent Broadband Infrastructure Bond Projects in the Monadnock Region[40]

	Chesterfield	Dublin	Harrisville	Rindge	Walpole	Westmoreland
Total Project Cost	$4.3 million		$1.6 million	$5 million	$3.2 million	$2.0 million
Town Bond	$1.8 million	$1.3 million	$0.9 million	$2.6 million	$1.9 million	$1.2 million
Total Locations Covered	1600		840			
Unserved Locations Covered	330		646			
Monthly Surcharge (Not to Exceed)	$10	$11.50	$10	$9.50	$9	$11
Town Vote	82.7%	223 to 5	133 to 3	1,151 to 174	135 to 2	252 to 6

The Request for Proposals (RFP)

Developing the RFP

Prior to diving into RFP development, you may want to consider holding informal meetings with potential vendors to discuss possible approaches to network buildout. Information gathered through those meetings may help inform what materials you require and what questions you ask in the RFP.

State law stipulates that once a municipality has completed, issued, and received responses to an RFI, it may then release a Request for Proposals (RFP) for purposes of forming a public-private partnership to develop broadband infrastructure.[41] Statute affords municipalities latitude in deciding what information is requested through the RFP and how responses are scored/ranked. The questions and/or requirements that a municipality includes in its RFP depends in part on the priorities of the community, but basic RFP components will be generally consistent across communities, including:

- Overview and Background Information. At the top of the RFP, consider providing information helpful for orienting prospective vendors, including: responses from a

[40] Blank cells represent data SWRPC staff was unable to obtain.
[41] RSA 33:3-g (III)

municipal survey, information collected through an RFI, and an overview of the general approach the municipality aims to take for the project (i.e. a public-private partnership)

- Proposal Guidelines. A list of project information that should be included in the proposal. In determining what information to request, think forward to the review process. What will reviewers need to know in order to compare proposals effectively and make a well-informed decision? Examples of factors that you might want to weight during the review process are listed on p. 23, under "Reviewing Proposals."
- Contact Information. The party designated to serve as the point of contact for the RFP process.
- Submission Format. Most likely a digital copy as well as a number of hard copies.
- Timeline. A due date for proposals and a target date by which reviewers will select a proposal (if one is selected). If the RFP process includes a question period, include a date by which questions must be received and when answers will be posted.
- Proposal Evaluation Criteria. Potential evaluation criteria include: overall suitability, organizational experience, previous work, value and cost, qualifications of project staff.
- Proposal Elements. What elements does a prospective vendor need to submit as part of a complete proposal? Potential elements include: a signed cover letter, the bidder's qualifications, a proposed project design, a proposed business model, a project schedule, insurance coverage.
- Terms of RFP. The fine print, including reservation of the right to cancel the RFP, to reject any or all proposals, and to exercise a degree of judgement and discretion when selecting a proposal (not necessarily picking the lowest bid).

Examples of RFPs issued in the past by Monandock Region communities can be found on the SWRPC broadband resources page.[42]

Issuing the RFP

Cast a wide net when distributing the RFP, sending it both to incumbent providers as well as those operating outside of the area. Appendix B contains contact information for some vendors that you might include on a distribution list. You should also consider posting the RFP on your municipality's website and on the New Hampshire Office of Strategic Initiatives Request for Proposals webpage.[43]

Reviewing Proposals

Your broadband committee will likely review proposals first and then make a recommendation to the Board of Selectmen (or other applicable governing body), who will then consider the proposals along with the recommendation to make a final selection. In weighing proposals, here are some factors that you might want to consider:

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[42] http://www.swrpc.org/broadband/resources
[43] https://www.nh.gov/osi/jobs-grants/rfps/index.htm

- Construction costs. The overall cost to construct the proposed project and how those costs will be allocated between the vendor and the municipality.
- Geographic coverage and locations served. Does the proposed project cover the whole town or does it leave some properties unserved?
- Technology. Does the proposed network rely on DSL, cable, fiber-optics or other technology? While a number of network types may be able to meet the current FCC definition for broadband, some offer more reliable service and high data transmission speeds than others. Also, it's important to consider whether the proposed technology will meet long-term broadband connectivity needs in the community, looking several decades into the future. As demand for higher connection speeds increases, will the proposed technology have the capacity to meet that demand, or is there a ceiling on how much bandwidth the technology is able to provide? Municipalities that have pursued the Chesterfield Model to date have all chosen to build fiber-optic networks. The FCC offers a resource page the provides a summary of different broadband technologies.[44]
- Available speeds. What are the guaranteed minimum upload and download speeds at all locations served by the network? What upload and download speeds will be available at each tier of service?
- Pricing. What price will subscribers pay for each tier of service? Does the proposal guarantee listed prices or does it include *sample* prices merely to illustrate how much service is *likely* to cost? Does the proposal show introductory rates or stable prices?
- Infrastructure surcharge. Under the Chesterfield Model, subscribers pay a surcharge in order to pay down the municipal bond that funds a portion or all of the project. Does the proposal specify a maximum allowable surcharge?
- Installation costs. Is it free to connect new installations to the network or do customers need to pay a fee?
- Timeline. When does the provider anticipate it will start to offer service on the new network? When does anticipate it will be able to finish connecting all new subscribers?
- Risk exposure. What guarantees does the proposal make to ensure that the municipality will not be held liable for bond payments over the lifetime of the loan? What assurance does the proposal provide regarding timely completion of the project?
- Net neutrality. Will the vendor treat all data transmitted over its network equally, or does it retain the right to prioritize some forms of data transmission over others? A guarantee of **net neutrality** could help ensure that customers receive consistent, reliable service irrespective of which applications, platforms, or websites they use over the internet.
- Bundled services. Will phone or TV packages also be available via the proposed network? If so, how much will they cost?
- Pole access. Does the proposing entity own or have ready access to electrical poles? The answer may impact the proposed project timeline and/or budget.
- Network management and ownership. In order for the project to be eligible for municipal bond financing, the municipality will need to retain ownership of bond-funded network

[44] https://www.fcc.gov/general/types-broadband-connections

assets over the lifetime of the loan. The proposal should indicate whether, once the loan has been paid, the municipality will continue to own those assets or if the vendor will assume ownership.

- Bond counsel. Does the proposal include a provision for paying the municipality's legal fees over the course of the project?

Selecting a Vendor

Once your broadband committee have reviewed proposals and settled on a top candidate, an appropriate next step would be to request authorization from your town's governing body—in most cases, the Board of Selectmen—to negotiate a contract with the chosen vendor. The contract negotiation process should include review and input by the town attorney. The contract negotiation process may require several rounds of review by the broadband committee, the town attorney, and the Board of Selectmen. The timing for execution of the final contract may depend on the negotiation process and the particular circumstances of your community.

Authorizing and Issuing Bonds

Retaining Bond Counsel

Managing the bond issuance will require technical expertise best provided by qualified legal counsel. Your municipality may not have issued bonds—to fund broadband infrastructure or any municipal project—for years or decades. A lawyer with experience in the field will help ensure that your community follows proper procedure and avoids missteps. Towns that have recently pursued the Chesterfield Model may be able to share the names of recommended firms.

Determining Public Benefit

The Chesterfield Model hinges on using a public financing mechanism—municipal general obligation bonds—to finance the construction of a publicly owned but privately operated broadband network. New Hampshire state law requires that in any case where municipal bonds are used to finance public-private partnerships the "public benefit [...] must outweigh any benefit accruing to a private party."[45] Furthermore, prior to issuing bonds for purposes of economic development, a municipality must present "public benefit findings" at officially noticed public hearings.

What is a public benefit and how do you document that it "outweighs" the private benefit? One could argue that there are *many* benefits that the public enjoys with increased broadband connectivity. Reduced healthcare costs, increased job opportunities, business growth, and transportation savings are a few examples. Municipalities that have pursued the Chesterfield

[45] RSA 33:3

Model, however, have chosen to focus on a particular type of public benefit: increased property values.

By focusing on the anticipated rise in property values, a municipality is able to provide a quantified estimate of the public benefit. To date, municipalities have used an estimation process that relies on scholarship showing that home values rise when faster connection speeds become available.[46] The process can be summarized in four steps:

1. Homes are grouped into categories based on available connection speed (using data obtained through the RFI).
2. A percentage increase in property value is then estimated for each group. Connection speeds are assumed to increase to the maximum that will be available through the new network. Locations with bigger improvements in connection speed will see bigger property jumps in property value.
3. For each group, the estimated percentage increase in property value is multiplied by the number of locations by the mean home value in the municipality (which is used as a rough approximation of all home values).
4. The dollar increase in property value for each group is summed to find the grand total in property value increase.

An example of the calculations can be found in the public benefit findings developed by the Town of Westmoreland.[47] Although a public benefit finding may focus on a particular type of public benefit in particular, it may be worthwhile citing other public benefits, even if not quantified in dollar value. A reasoned discussion of additional public benefits may help convince your neighbors that the bond sale is indeed a good deal for your community and does not prioritize the interests of the private sector partner.

Once you have documented the public benefit of the bond issuance, you must present your findings at public hearings (at least two) held by the governing body of your community, in most cases, the Board of Selectmen. Town staff and/or bond counsel should be able to help you put together the public notice required for the hearings. A notice published by the Town of Westmoreland provides an example.[48] At the conclusion of the hearings, the governing body should vote to approve the finding of public benefit.

You can use the public hearings as an opportunity to provide not only information about the public benefit finding, but also context about your community's broadband-related efforts as a whole. Even though you and your fellow broadband committee members may have been discussing the prospect of improved broadband for months if not longer, some of your neighbors may tune into the conversation for the first time at the public benefit hearings. It would be worthwhile to dedicate a portion of the hearing to inform your fellow community members about

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[46] Gabor Molnar, Scott J. Savage & Douglas C. Sicker (2019) High-speed Internet access and housing values, Applied Economics, 51:55, 5923-5936, DOI: 10.1080/00036846.2019.1631443

[47] http://www.swrpc.org/files/John%20Snowdon%20-%20Westmoreland%20Public%20Benefits%20Document%20-%20Rev.pdf

[48] http://www.swrpc.org/files/John Snowdon - Public Benefit Approved Notice feb1.pdf

the work that's been done to date, including a municipal survey, the RFI, RFP, and any other steps that bear mentioning.

Holding the Bond Hearing

New Hampshire statute requires that there "shall be at least one public hearing concerning any proposed municipal bond or note issue in excess of $100,000 held before the governing board of any municipality."[49] The hearing must be held at least 15 days, but no more 60 days prior to meeting at which the bond is to be voted upon. Work with your town staff and bond counsel to ensure that proper procedure is followed when publicly noticing the meeting.

The purpose of the bond hearing is to provide community members with an opportunity to learn more about the proposed bond issuance and the network it's meant to finance. As with the hearing held for the public benefit finding, many neighbors may be tuning into the conversation for the first time, despite any outreach that you've done to date. When presenting at the public hearing, it's important to take some time to provide context: a brief overview of the steps taken to date and where the process is heading. Members of the broadband committee will likely function as the primary presenters, perhaps in coordination with selectmen and/or municipal staff. The partnering private entity should also use the public hearing as an opportunity to share details about the network financed by the bond issuance and the services offered over that network.

Community members will likely have a range of questions they'll want to ask both the broadband committee and the private vendor. Below are a few that you might expect and should be prepared to answer. Responses will depend on the specifics of the proposal chosen by your community.

- *How will this affect my taxes?*
- *What if the private vendor goes out of business before the bond is repaid?*
- *Will I be able to keep the service I have right now if I don't want to sign up for the new service?*
- *How much will the new service cost? Are prices guaranteed as part within the agreement?*
- *How long will network construction take and which areas of town will be connected first?*

In addition to serving as a forum for community questions, the bond hearing is an important opportunity to issue a call to action encouraging residents to attend the meeting where the bond will be voted upon. In order for the bond issuance to proceed, broadband supporters need to turn out and vote.

Holding the Vote

Most smaller communities in New Hampshire approve a municipal budget at an annual town meeting. Communities that hold budgetary town meetings must approve issuances of municipal bonds by a 2/3 vote.[50] The decision must be put before the voters as a "warrant article." The

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[49] RSA 33:8-a (I)
[50] RSA 33:8

"warrant" is the official list of measures, or "articles," to be voted upon at town meeting. State statute places requirements on where articles related to bonding authorization appear on the warrant.[51] You should consult your town attorney and bond counsel when developing the language of the warrant article and deciding where it appears. Language from the Town of Dublin's 2020 town warrant serves as an example of how the warrant article could be phrased:

> *Article 5:*
> *To see if the Town will vote raise and appropriate One Million Three Hundred Thousand Dollars ($1,300,000) for the purpose of providing Broadband and to authorize the issuance of bonds or notes in said amount in accordance with the provisions of the Municipal Finance Act (RSA 33) and, furthermore, to authorize the Board of Selectmen to issue and negotiate such bonds or notes to determine the best rate of interest thereon, payable over a term not to exceed 20 years, and furthermore to authorize that all future payments on said bonds or notes be accepted through an agreement with Consolidated Communications. 2/3 ballot vote required for passage, polls to be open for one hour.*

In order to give the warrant article the best possible chance of succeeding, broadband committee members should consider taking a proactive approach to voter turnout. Typically, only a small portion of a community's total population participate in annual town meetings. Below are few ideas for increasing voter awareness about an upcoming bond vote.

- Include an ad in your town's newsletter. Some municipalities publish newsletters with broad readership across town. An insert with information about the upcoming vote and the importance of broadband could help ensure that residents are aware of the decision and its potential impact.
- Issue a press release. Traditional media like local newspapers and radio stations may be interested in covering an upcoming vote on broadband infrastructure bonds. A press release e-mailed to local news organizations could help raise the profile of the vote. Follow-up phone calls are useful for ensuring that the press release doesn't get overlooked in busy newsrooms.
- Send flyers home with students. Your local school district may be open to sending flyers home with students to notify parents about an upcoming vote. Flyer language could be developed specifically to speak to issues like how broadband can improve remote learning opportunities.
- Post on community Facebook groups and other social media platforms. Digital outreach on social media could help reach segments of the population who don't read traditional new sources.
- Post flyers at community gathering points, like the dump, library, and town offices.

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[51] RSA 33:8-a.

State statute establishes a different bond authorization procedure for towns without a budgetary town meeting as well as cities.[52] Municipal staff and bond counsel are good resources for ensuring proper procedure is followed in these cases.

Bond Issuance Process

Typically, New Hampshire municipalities work with the New Hampshire Municipal Bond Bank (NHMBB) to bring general obligation bonds to market. NHMBB pools bonds issued by local governments across the State and sells them on the national municipal bond market. These pooled bond sales occur twice a year, once in January and once in July. Working with the NHMBB offers a variety of advantages over bringing a bond to market as an individual municipality. NHMBB can often offer municipalities competitive interest rates, reduced transaction costs, administrative assistance, and a streamlined borrowing process.

The NHMBB's bond sale schedule remains similar from year to year. Municipalities interested in selling bonds through the NHMBB must complete an application approximately two months prior to the sale, whether occurring in January or July.[53] Bond interest rates are set the month of the sale. Sale proceeds are disbursed to the issuing municipalities about a month after completion of the sale. The calendar for the July 2020 and January 2021 bond sales are summarized below, in Table 2.

Table 2 – Calendar for July 2020 and January 2021 NHMBB Bond Sales

	July 2020	January 2021
Application deadline	May 8, 2020	November 6, 2020
Bonds priced	July 14, 2020	January 6, 2021
Participants receive funds	August 12, 2020	February 11, 2021
First interest payment due	February 15, 2021	August 15, 2021
First principal payment due	August 15, 2021	February 15, 2022

For communities considering the use of general obligation bonds to finance broadband infrastructure projects, it's important to note that projects that have followed the Chesterfield Model have relied on **taxable bonds**. General obligation bonds issued by municipalities for public infrastructure projects are typically "tax-exempt," meaning that investors who purchase the bonds don't have to pay taxes on interest payments they receive from the issuing municipality. A bond's tax-exempt status typically translates into lower borrowing costs. The Chesterfield Model, however, relies on a public-private partnership where (1) the constructed network is operated by a private entity and (2) ownership of the network transfers to the private entity once the bond has been paid in full. Consequently, bonds issued to finance Chesterfield Model projects don't qualify

[52] RSA 33:8; RSA 33:8-d; RSA 33:8-e; RSA 33:9
[53] For reference, NHMBB makes a sample application available on its website: http://www.nhmbb.org/images/pdfs/sampleapplication.pdf

for tax-exempt status. There is some question whether bonds *might* qualify for tax-exempt status if the issuing municipality retained network ownership in perpetuity, but, to date, the matter has been untested.

In addition to impacts on interest rates, the taxable/tax-exempt status of a bond may affect the timing of the sale. Currently, taxable bonds can make up only 5% or less of the NHMBB sale each January and July. Consequently, if taxable bonds authorized by municipalities across the State exceed 5%, there may be a need to delay sale of some or all of the bonds until the next regularly scheduled sale to comply with the 5% limit. Alternatively, a separate taxable bond sale can be brought to market out of the usual cycle or in conjunction with the regular sale process.

More information about the bond issuance process as well as legal considerations unique to broadband infrastructure bonds can be found in the recording of the Monadnock Broadband Group meeting held on December 2, 2019.[54] The recording includes presentations by Tammy St. Gelais, NHMBB Executive Director, and Richard Manley, attorney at Locke Lord.

Bridge Funding

In order to begin a broadband infrastructure project prior to receiving the proceeds of a bond sale, a municipality may be able to bridge the gap with **bond anticipation notes**, which provide a short-term mechanism for borrowing in anticipation of the receipt of bond proceeds. Bond anticipation notes must be paid within three years of the issue date and cannot total more than the amount of the bonds authorized. A separate vote of the town to authorize bond anticipation notes is not required.

Municipalities interested in using bond anticipation notes as bridge funding should work with their bond counsel and NHMBB staff to determine an appropriate path forward.

Putting it All Together

Example Timeline

The particular path your community takes to expand broadband connectivity will depend on a number of factors, many of which may be unique to your town or city. The time it takes to get to the finish line may differ from other communities. The timeline below is intended to synthesize the steps discussed in this guide and to provide a template that could prove useful in guiding implementation of the Chesterfield Model.

Year 1	February	Broadband committee forms. If necessary, additional members are recruited.
	April	Broadband committee develops and conducts a municipal survey to assess local broadband challenges and needs.

[54] https://www.youtube.com/watch?v=d-YxJz0dffg&feature=youtu.be

		Results are shared in a variety of formats, including an informational public forum. Survey period lasts 1-2 months.
	May	Board of Selectmen distributes a Request for Information (RFI) from incumbent providers. RFI recipients are given two months to respond, per State law.
	July	Broadband committee processes information received through the RFI, maps gaps in broadband service across the community.
	September	Broadband committee assesses the pro and cons of various broadband implementation models. Verifies viability of pursuing the Chesterfield Model.
	October	Selectmen, in coordination with broadband committee, develops/issues a Request for Proposals.
	November	Broadband committee reviews submitted proposals and sends recommendation to the Board of Selectmen, who authorizes contract negotiation with the chosen vendor.
Year 2	January	Board of Selectmen hold two public hearings for public benefit finding.
	February	Bond hearing held by Board of Selectmen.
	March	Bond issuance is authorized at town meeting.
	April	Final contract executed by Board of Selectmen and private vendor.
	May	Application submitted to NHMBB.
	July	Bonds are sold by the NHMBB.
	August	Construction of network begins.
	October	Residential connections to network begin.

Glossary

- Asymmetrical digital subscriber line (ADSL). A type of digital subscriber line (DSL) with a download data transmission rate faster than its upload transmission rate. Frequently referred to simply as "DSL."
- Bond anticipation notes. A short-term financial mechanism that allows municipalities to borrow against anticipated bond proceeds.
- Broadband. High-speed internet. The FCC currently uses a mimimum data transmission speed of 25 Mbps download/3 Mbps upload to define broadband.
- Broadband infrastructure bonds. Municipal general obligation bonds issued to finance broadband development in areas currently unserved by broadband.
- Cable franchise agreement.

- Digital subscribe line. A telecommunications technology that transmits data over copper telephone wires.
- Fixed wireless. Internet service where data is transmitted wirelessly through radio waves between a receiver on the user's property and a tower located nearby.
- General obligation bonds. A type of municipal bond backed by a municipality's ability to levy taxes. General obligation bonds allow municipalities to debt-finance capital projects.
- Reverse auction. An auction where the lowest bidder wins.
- Net neutrality. Internet service where all data is given equal bandwidth priority, i.e. where all data is transmitted at the same speed irrespective of data content.
- Public-private partnership. A relationship, usually contractual, established between a governmental entity and a private firm, in order to achieve a given objective, e.g. infrastructure development, program or service delivery, etc.
- Taxable bonds. Municipal bonds where the investor pays taxes on interested collected.
- Served/Unserved. According to NH state law, a location is served by broadband only if the service available meets the current FCC definition of broadband.
- Wireline. Used to describe internet services that rely on a physical connection. Examples include fiber, cable, and DSL.

Acronyms and Abbreviations

General obligation bonds - Description of general obligation bonds. 6

- ADSL – Asymmetric digital subscriber line (see glossary for definition)
- DSL – Digital subscriber line (see glossary for definition)
- EDA – U.S. Economic Development Administration
- FCC – U.S. Federal Communications Commission
- ISP – Internet service provider
- Mbps – Megabits per second (a common measure of data transmission speed)
- NBRC – Northern Border Regional Commission
- NHMBB – New Hampshire Municipal Bond Bank
- RFI – Request for Information
- RFP – Request for Proposals
- RSA – Revised Statutes Annotated (used to reference New Hampshire state law)
- USDA – United States Department of Agriculture

Appendix A: Model Municipal Broadband Survey

Thank you for taking the [TOWN] municipal broadband survey. This survey is intended to build a better understanding of internet challenges and needs among [TOWN] households and businesses. Please submit one survey response per location. If you'd like to submit a survey on behalf a household *and* a business not located at your home, please submit two responses.

Response Type

Q1 Are you responding on behalf of a residential household or a business located in [TOWN]? Please choose one.

a) A residential household and/or at-home businesses
b) A business not located at home

Household Information

[NOTE: Display Q2 through Q24 only for residential household or at-home business respondents]

Q2 What is your home address?

Q3 Are you a year-round resident?

a) Yes
b) No

Q4 Do you own or rent your residence?

a) Rent
b) Own

Q5 How many people in your household currently use the internet or *would* use the internet if you had it?

a) 1
b) 2
c) 3
d) 4
e) 5
f) 6
g) More than 6

Home Internet Service

Q6 Do you currently have the internet at your home? If no, skip to question Q19.

a) Yes
b) No

Q7 What type of internet connection do you use at your home?

a) DSL
b) Cable
c) Fiber
d) Satellite
e) Fixed wireless
f) Mobile wireless
g) I don't know

Q8 Who is your current internet service provider (ISP) at your residence? *[Note: list all providers known to offer service in your municipality]*

a) Provider A
b) Provider B
c) Provider C
d) Other

Q9 What is the maximum download speed that your current service is advertised to provide? *(Leave blank if you're unsure.)*

Q10 What is the maximum upload speed that your current service is advertised to provide? *(Leave blank if you're unsure.)*

Q11 Using the speed test here, what is your observed download speed?

Q12 Using the results from the previous question, what is your observed upload speed?

Q13 How much do you currently pay per month for your at-home internet connection?

Q14 How would you describe your overall satisfaction with your current at-home internet service?

a) Very satisfied
b) Somewhat satisfied
c) Neutral
d) Some dissatisfied
e) Very dissatisfied

Q15 Select the option that best describes your experience using your home internet connection for the following purposes.

	I use the internet for this purpose, and it works great	I use the internet for this purpose, but experience challenges due to poor connectivity	I don't use the internet for this purpose, but might be if my connection supported it	I don't use the internet for this purpose, and probably won't be interested in the future
Healthcare				
Education or training				
Searching for employment				
Working from home				
Running a small business				
Videoconferencing (e.g. Zoom, Facetime)				
E-mail				
Entertainment				
Government services				

Q16 How much would you be willing to pay per month for an internet connection that supports all of your household's current and future connectivity needs?

a) Less than $50
b) $50-$74
c) $75-$99
d) $100-$125
e) $125-$149
f) $150 or more
g) I'm not sure

Q17 Rank the following internet service provider qualities, with "1" indicating the most important quality.

Speed	
Reliability	
Price	

Local ownership	
Customer service	
Bundled entertainment options	

Q18 If you have other comments about how you currently use the internet or would like to use the internet, please provide them below.

Residential Phone Service

Q19 Do you have a landline provider?

a) Yes
b) No

Q20 Do you have a cell phone?

a) Yes
b) No

Q21 If so, who is your service provider?

a) AT&T
b) Verizon
c) Sprint
d) T-Mobile
e) US Cellular
f) Other (please specify)

Q22 What is the signal strength at your home?

a) 4-5 bars (full strength)
b) 3 bars
c) 2 bars
d) 1 bar
e) None

Demographic Information

Q23 What is your age?

a) Under 20
b) 20-34
c) 35-49
d) 50-64

e) 65 and over

Q24 What is your household income?

a) Less than $25,000
b) $25,000 to $49,999
c) $50,000 to $74,999
d) $75,000 to $99,999
e) $100,000 to $149,999
f) $150,000 or more

Business Information

[NOTE: Display Q25 through Q41 only for respondents answering on behalf of businesses not located at home.]

Q25 Which of the following categories best describes your business?

a) Construction
b) Manufacturing
c) Wholesale trade
d) Retail trade
e) Transportation and warehousing
f) Information services
g) Finance or insurance
h) Professional Scientific or Technical Services
i) Arts, entertainment, recreation
j) Accommodation and food service
k) Other (please specify)

Q26 What is the street address of your business?

Current Business Internet Connection

Q27 Who is your primary internet service provider?

a) Spectrum
b) Comcast
c) Argent Communications
d) Consolidate Communications
e) Other (please specify)

Q28 What type of internet connection do you use at your business?

a) DSL
b) Cable

c) Fiber
d) Satellite
e) Fixed wireless
f) Mobile wireless
g) I don't know

Q29 How satisfied are you with your current business internet service?

a) Very satisfied
b) Satisfied
c) Neither satisfied nor dissatisfied
d) Dissatisfied
e) Very Dissatisfied

Q30 Why are not satisfied with your service? Check all that apply. [Note: ask only if answered c, d or e on Q29]

a) Slow download or upload speed
b) Intermittent service / service dropouts
c) Service slows down at certain times of day
d) Difficult to make video calls
e) Too expensive
f) Other (please specify)

Q31 How much does your business spend per month for internet service?

Q32 How do you currently use the internet at your business?

a) Uploading/downloading large files
b) Videoconferencing (e.g. Zoom, Skype)
c) Hosting a website
d) Link to company network (VPN)
e) Remote real-time operations (e.g. remote-controlled equipment)
f) E-mail
g) Virtual reality
h) Accessing software or service hosted in the cloud
i) Don't use the internet in any way
j) Other (please specify)

Q33 If your business internet connection were improved, how might that influence its plans for the future? Please check all that apply.

a) My business would be more likely to expand in [TOWN]
b) My business would be more likely to expand nationally.
c) My business would be more likely to expand globally.
d) It would enable my business to operate more efficiently and profitably.

Q34 What is the maximum download speed that your current service is advertised to provide? *(Leave blank if you're unsure.)*

Q35 What is the maximum upload speed that your current service is advertised to provide? *(Leave blank if you're unsure.)*

Q36 Using the speed test here, what is your observed download speed?

Q37 Using the results from the previous question, what is your observed upload speed?

Business Phone Service

Q38 Does your business have a landline provider?

a) Yes
b) No

Q39 Do business staff use company cell phones?

a) Yes
b) No

Q40 If so, who is your company's service provider?

a) AT&T
b) Verizon
c) Sprint
d) T-Mobile
e) US Cellular
f) Other (please specify)

Q41 What is the signal strength at your business?

a) 4-5 bars (full strength)
b) 3 bars
c) 2 bars
d) 1 bar
e) Nonen

Appendix B: Contact List for Potential Broadband Providers

The list below of ISP contacts is not intended to serve as a comprehensive inventory of all potential vendors, nor does inclusion in the list does constitute an endorsement of any given vendor. The list is intended solely to assist municipalities in distributing broadband-related RFPs.

Argent Communications

Andrew Bauer
Argent Communications
10 Benning Street
Suite 10
P.O. Box 235
West Lebanon, NH 03784

Comcast

Comcast
Attn: Bryan Christianson
54 Regional Drive
Concord, NH 03301
Melissa Pierce
Government and Regulatory Affairs Manager
802.776.1632
melissa_pierce@comcast.com

Consolidated Communications, Inc.

Jeffrey McIver
Manager, Consumer Product Management
603.656.8023
jeffrey.mciver@consolidated.com

GWI (Maine)

Colin Haley
colinhaley@staff.gwi.net
207.602.1130

Matrix Design Group

Chris Lynch
clynch@matrixdg.com
508.918.0478 (cell)

OTELCO (Maine)

OTELCO
Attn: Trevor Jones
66 Campus Drive
New Gloucester, ME 04260
207.688.8882
trevor.jones@otelco.com

Wi-Valley:

Brian Foucher
WiValley, Inc
310 Marlboro Street
Keene, NH 03431
sales@wivalley.net

Fiber Broadband Association

A free online service for posting broadband RFPs.
https://www.fiberbroadband.org/rfps

FiberCast

188 Main Street
Colebrook, NH 03576
(603) 331-0000

TDS Telecom

Scott Brooks
TDS Telecom, 242 Main Street
New London, NH 03257
scott.brooks@tdstelecom.com

Granite State Communications

Granite State Communications
PO Box 87
Weare, NH 03281
info@mygsc.com

ValleyNet

ValleyNet
P.O. Box 323

Royalton, VT 05068
(802) 763-0330
info@valley.net