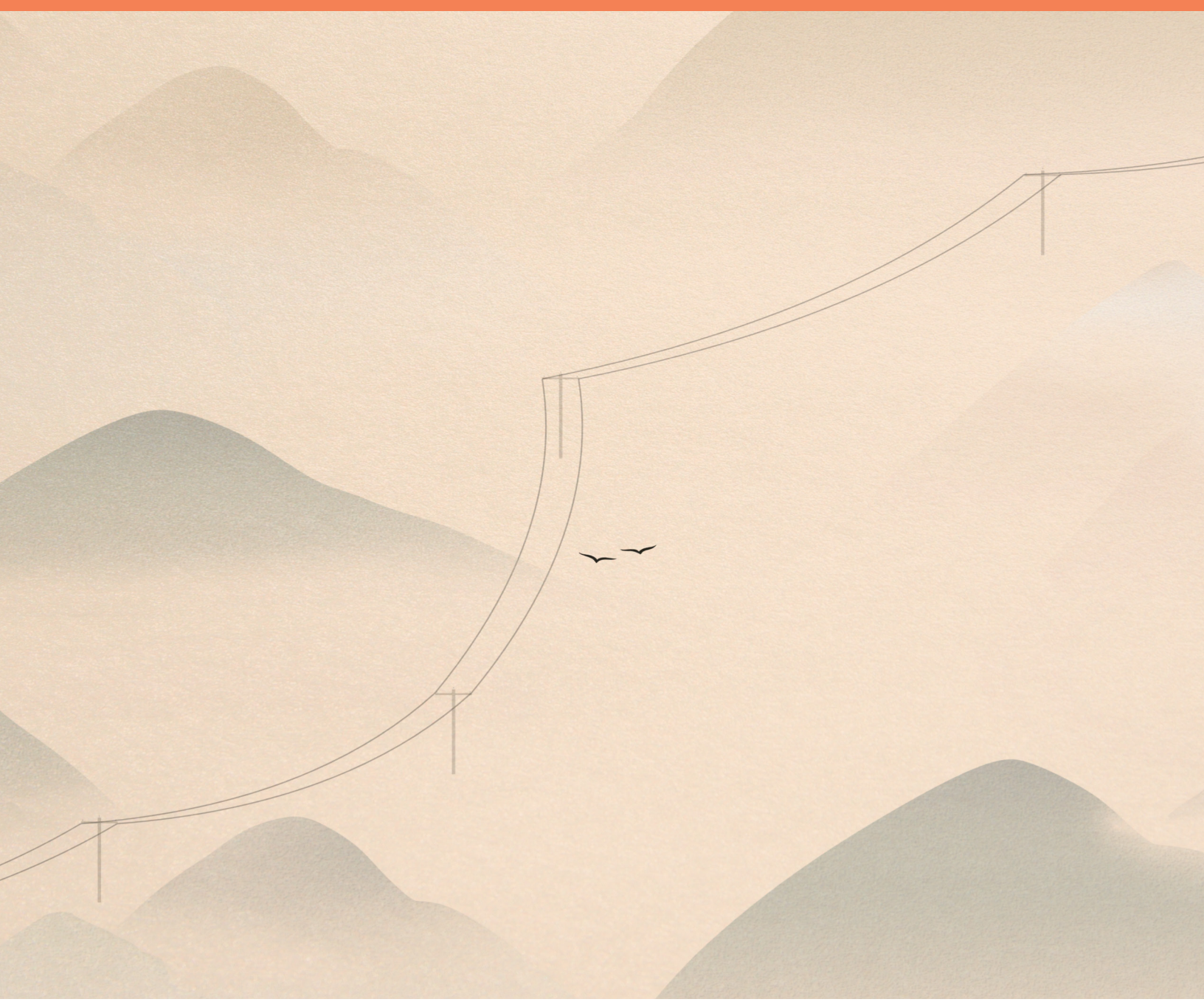


Seeking the Commonwealth of Connection:

How Small-Town Volunteers and Public Partnerships Transformed Internet Access in Western Massachusetts

By Jessica Auer
November 2025

ILSR INSTITUTE FOR Local Self-Reliance

About the Institute for Local Self-Reliance

The Institute for Local Self-Reliance (ILSR) is a national nonprofit research and educational organization founded in 1974. ILSR has a vision of thriving, diverse, equitable communities. To reach this vision, we build local power to fight corporate control. We believe that democracy can only thrive when economic and political power is widely dispersed. Whether it's fighting back against the outsize power of monopolies like Amazon or advocating to keep local renewable energy in the community that produced it, ILSR advocates for solutions that harness the power of citizens and communities. More at **ilsr.org**.

About the Authors

Jessica Auer is a Senior Researcher for the Institute for Local Self-Reliance's Community Broadband Networks initiative. Before joining ILSR, Jessica led evaluation and impact research for Asheville Area Habitat for Humanity. She earned her PhD from the University of North Carolina at Chapel Hill, where she studied twentieth century U.S. labor history with a focus on race and gender.

Jessica would like to thank Bailey Cole, Jim Drawe, Thomas Flaherty, David Kulp, Tim Ortwein, Jean Atwater-Williams, and Tim Newman for taking the time to share their stories.

Related Work from ILSR and the Community Broadband Networks Team

Neighborly Networks: Vermont's Approach to Community Broadband

Minnesota Broadband: Land of 10,000 Connectivity Solutions

Table of Contents

Executive Summary

Something remarkable happened in Western Massachusetts in 2018. Over the course of just four months that year, two new municipal fiber networks lit up in tiny towns in the least-densely populated part of the state. In 2019, three more small towns in the region brought networks online. The next year, seven more communities followed suit. Another seven joined them the following year. Over the course of just four years, 19 towns launched municipal broadband networks, bringing ubiquitous, high-speed Internet access to their communities. The area became the most geographically dense collection of municipal broadband anywhere in the United States.

How did they do it? These towns were small. Some tenfold smaller, in fact, than the average municipal network in the United States, with none of the demographic advantages and few of the fiscal tools of their larger counterparts across the country.

This was a feat more than a decade in the making; a saga filled with both trials and triumphs. For years, a cadre of volunteers in the region devoted thousands of hours to organizing, research, and advocacy in a region-wide effort to bring Internet access to every resident with no guarantee of success. When state officials doomed the regional project by withdrawing their support, advocates adapted their plans toward individual town ownership. Then, after officials changed the rules of the state grant program to prioritize private Internet Service Providers, broadband boosters in the communities stared down a pressure campaign to abandon municipal ownership — and persevered. Their commitment to local self-reliance and collective well-being was contagious. Voters overwhelmingly approved measures to take on debt in order to pay for network construction, even when it meant raising their own taxes. Often, these debts represented the single largest investment in the town's history.

Residents are now reaping the rewards of this effort. Widespread excitement and strategic planning led to sky-high adoption rates, with over 70 percent of town residents signing up for Internet access within the first year of service. Today, some towns boast a 90 percent subscription rate. The 8,000 people who live in the area pay less for their broadband service than the majority of Americans, including those living in major metro areas, and know their customer service representatives by name. And in an industry where price hikes feel inevitable, some networks are even leveraging their financial success to lower costs for subscribers. This year, Ashfield became the fourth of these communities to lower its rates when it reduced prices by $20 a month.

Access to ubiquitous, affordable Internet service has changed the experience of living in Western Massachusetts. Realtors say that houses that used to take a year to sell are now moving in a matter of weeks. Young families are moving to town, and professionals with remote jobs are settling full-time in the region. Business owners laud how broadband access has transformed the way they conduct business. Gone are the days of stalled credit card

transactions, frozen downloads, and downed security systems. Residents say they can stay connected to their families, work from home, get their children online educational support, and video chat with a medical professional rather than driving hours for an appointment.

None of this would be possible without public-public partnerships. Nineteen towns work with nearby Westfield Gas & Electric (WG&E) — doing business as Whip City Fiber — for day-to-day operation of their networks. These partnerships allow capacity-strapped communities to secure cutting-edge Internet services at affordable rates and retain ownership and control over their networks. Each community continues to make the executive decisions of the network, but they can count on the community-oriented team in Westfield for fast, professional responses and a real, local person at the other end of the phone. During a recent outage in Alford, town leaders got through to Whip City Fiber's director within minutes, and the team was on-site almost immediately.

WG&E in turn benefits from a new revenue stream. Buoyed by this unexpected income, WG&E has recently increased its financial commitments to the city of Westfield — to the tune of $1 million more per year.

In late 2025, the Trump Administration began curtailing the Broadband Equity Access and Deployment program (BEAD), the massive federal program that was supposed to bring Internet access to all in rural America. As a result, many small communities will remain stranded without adequate access, kept from participating fully in civic life and relegated to second-class economic status. If we ever hope to close the digital divide, we will need local models built on self-reliance and community power. Leveraging volunteer effort, community enthusiasm, savvy financial decisions, and public-public partnerships, these small towns have shown one way it can be done.

Introduction

> **"It is within our power to decide whether we want to be part of the 21st century or be left behind."**
>
> — GEORGE J. GRUMBACH, JR., SANDISFIELD RESIDENT

When describing the landscape of Western Massachusetts, it is easy to shade into caricature. As the larger peaks of the Berkshire Mountains settle into gentler, rollicking hills, picturesque little towns sit nestled among babbling streams and densely forested landscapes. Described as "idyllic" and "bucolic," the region boasts access to nature that attracts countless visitors and seasonal residents from Boston and New York looking for a respite.[1] One website dedicated to tourism in the area calls the region "nearly lost-in-time."[2]

For many years, towns in the region were "lost-in-time" in more ways than one. For all of the natural beauty on offer, many residents lacked something critical for thriving in modern life: good Internet access.

In 2012, if you happened to live within a mile of a Verizon central office, you might get speeds of a couple of megabits per second over a Digital Subscriber Line (DSL) connection.[3] Or maybe you had access to a hotspot from a mobile cellular company, which one resident remembers would work "occasionally."[4] In a few areas, there was a wireless option and, "if the stars aligned, and the tree didn't blow the wrong way, you'd get a few megabits per second of service."[5] Within a mile, occasional service, if the stars aligned — phrases filled more with angst than assurance.

Looking forward felt dire; what little wireline connection there was seemed destined to become obsolete entirely. "Copper was starting to fade out," Alford Municipal Light Plant Manager Tim Ortwein recalled.[6] In Ashfield, residents could no longer sign up for DSL service by 2012, even within the company's limited radius. Verizon had effectively abandoned the town.[7] This lack of connection was not for want of trying on the part of locals. Some towns had worked for years to attract Internet Service Providers to their communities, but they could never generate interest.[8]

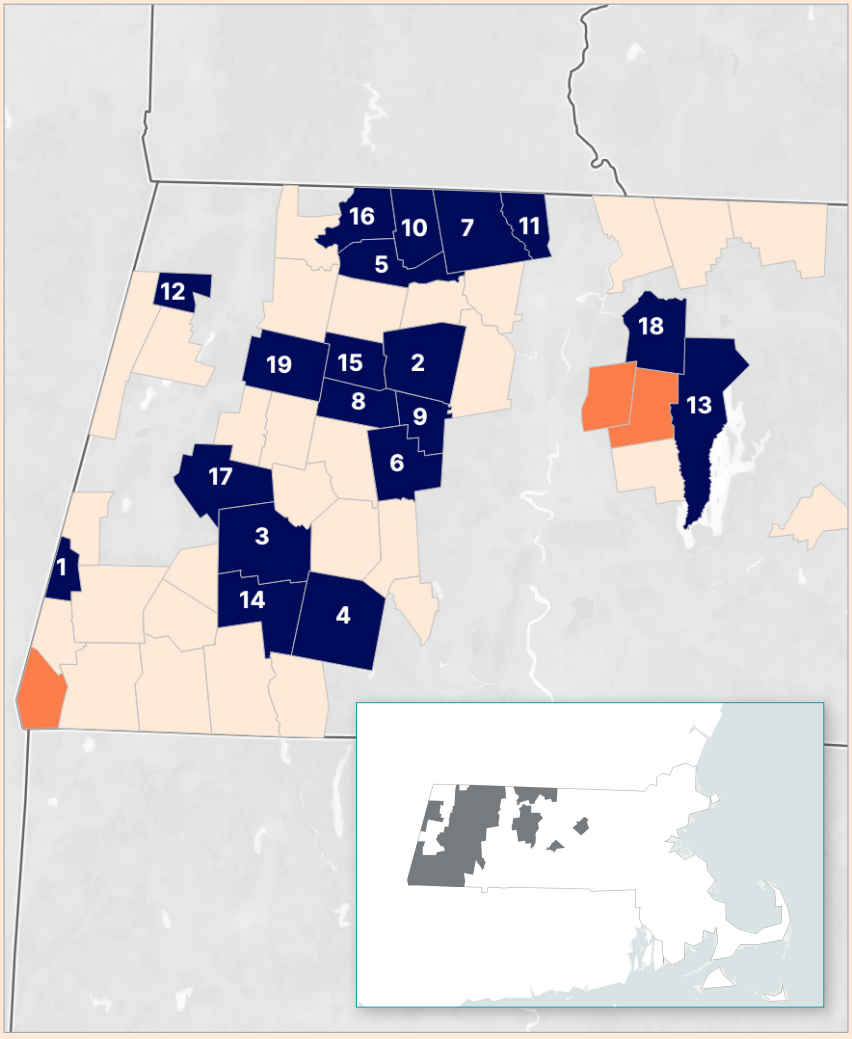
Photo Credit: Thomas H. Mitchell/500 px via Getty Images

The lush hilltowns of Western Massachusetts were — when it came to high-quality Internet access — a desert.

Today, the landscape looks remarkably different. Twenty-one towns have ubiquitous fiber-to-the-home Internet service, owned and controlled not by a giant telecom provider subject to the demands of Wall Street, but by the taxpayers of those communities, offering gigabit speeds for affordable prices. Nineteen of these new municipal broadband networks — though individually owned — are managed in partnership with another city, Westfield, that has also built its own network. This report tells the story of these nineteen networks and the public-public partnerships that help sustain them.

Small Western Massachusetts Towns and Municipal Broadband

Map Location	Town	Approx. Population
1	Alford	500
2	Ashfield	1,700
3	Becket	1,900
4	Blandford	1,200
5	Charlemont	1,200
6	Chesterfield	1,200
7	Colrain	1,700
8	Cummington	900
9	Goshen	1,000
10	Heath	700
11	Leyden	700
12	New Ashford	250
13	New Salem	1,100
14	Otis	1,600
15	Plainfield	650
16	Rowe	400
17	Washington	500
18	Wendell	900
19	Windsor	800



Note: Map shows all Western Massachusetts towns involved in original broadband organizing effort circa 2010. Towns in blue (and named above) eventually built municipal broadband networks that are operated in partnership with Westfield Gas & Electric. They are the primary subjects of this report. Towns in orange built municipal broadband networks under a different arrangement. Towns in peach did not build municipal networks. At times, this report references the experiences of these towns.

This outcome was by no means guaranteed. Theirs is a complex and winding story of attrition and resilience in the face of a "long slog," in which a surge of interest in municipal broadband in nearly fifty towns was followed by a slow retreat in the face of setbacks until fewer than half that number succeeded.[9] The state alternately played hero and villain: over the years, political winds and monopoly influence shifted the sands beneath community advocates, though state support eventually helped finance the creation of dozens of new municipal networks. And, ultimately, it is a story in which public-public partnerships play a critical role, enabling communities with as few as three hundred residents to build financially-solvent broadband networks.

The Interviews That Inform This Report

Along with other research, this report draws from interviews with people who have been involved with Internet access issues in the region over the last couple of decades and helped bring municipal broadband to their own communities. We quote extensively from interviews with the following people:

Bailey Cole | A relative newcomer to Heath, Cole is among the newest broadband leaders after recently taking over as municipal light plant (MLP) Manager. Heath is a charter member of the WiredWest Cooperative.

Jim Drawe | A resident of Cummington, Drawe helped spearhead broadband organizing in the region for many years, eventually serving as Chairman of the Board and in other leadership roles with WiredWest. He now works part-time as Executive Director of the organization.

Thomas Flaherty | As the General Manager of Westfield Gas & Electric, Flaherty oversees its subsidiary Whip City Fiber. Flaherty took on the role in 2021, but before that served as a Municipal Light Board Commissioner in Westfield for many years.

David Kulp | Another long-time broadband advocate in the region, Kulp is from Ashfield. Before becoming MLP Manager of Ashfield's town-owned broadband network, Kulp was highly involved in WiredWest local organizing efforts and served in a variety of leadership capacities for the organization.

Tim Ortwein | The MLP Manager for Alford, Ortwein was involved in efforts to bring broadband to his community for many years.

The following people were involved in organizing efforts over the period, but live in towns that ultimately did not build municipal broadband. They also agreed to be interviewed for this report, and we have incorporated their insights when appropriate.

Jean Atwater-Williams | A member of WiredWest's Executive Commitee for half a decade, Atwater-Williams also spent years as the chair of Sandisfield's Broadband Committee.

Tim Newman | Before becoming involved in WiredWest organizing, Newman served on the Technology Committee for New Marlborough beginning around 2006.

The Movement Begins

"We didn't know how we were going to do it, but we wanted to create an organization to champion broadband."

— DAVID KULP, ASHFIELD MLP MANAGER[10]

In the aftermath of the financial crisis of 2008, Congress passed the American Recovery and Reinvestment Act (ARRA) to spur economic growth and infrastructure development. The legislation included $7 billion in broadband funding, available to support construction of broadband networks in unserved areas as well as an array of activities that today we call digital inclusion. In this funding, Massachusetts saw an opportunity.

Leveraging $45 million in federal ARRA money through the **Broadband Technical Opportunities Program (BTOP)** to supplement a funding commitment from the state made in 2008, Massachusetts financed a massive $90 million middle-mile fiber construction to "solve, once and for all, the longstanding problem of lack of high speed, affordable broadband in Western Massachusetts."[11] Middle-mile networks like this one are designed to lower the cost of local last-mile networks to connect to the broader Internet. The project was eventually known as MassBroadband 123, as it connected anchor institutions in 123 communities. The Massachusetts Broadband Institute — a new state agency created to "achieve the deployment of affordable and ubiquitous broadband access" — was tasked with shepherding the project.[12]

Far from feeling relief, some local residents were frustrated with the state's emphasis on the middle mile. The costly project would offer no immediate respite for unserved communities hankering for at-home broadband. Moreover, Cummington resident Jim Drawe remembered that planners expected public libraries to pay $1,000 a month for gigabit service, a price point outside the monthly budgets of some of those libraries.[13]

Despite its weaknesses, the MassBroadband 123 project helped accelerate a rush of community organizing focused on last-mile connectivity. As MBI crisscrossed the state for informational meetings, folks in Western Massachusetts started to find shared purpose. "I attended several of those [meetings]," Jim Drawe remembered, "and several of us got together and decided that we were going to pursue a dream and get a high-speed fiber optic network built in all of our communities."[14]

New Marlborough resident and municipal broadband advocate Tim Newman remembered the sense of inchoate but profound possibility during that "heady" period. "The energy and the excitement was palpable. You could really feel that this would be game-changing for our towns. Who knows how we're going to do it, but let's just do it," he said.[15]

Ashfield resident David Kulp noted that the group drew from a diverse cross-section of hilltown society. Some of the early champions were like Kulp himself, remote workers

who personally felt the need for connectivity. "Selfishness" is how Kulp described his own motivations — "I really wanted to be able to work from home [...] and I wanted to stay here," noting also that he was thinking about his children's educational needs. But most were older, long-term residents of the hilltowns, many "not tech savvy in a more traditional sense," but nevertheless "driven by this concern" for connectivity.

Previously small, local campaigns took on the character of something bigger.

Some communities had been working independently on broadband efforts. Alford had established a broadband committee by 2008, for instance, while two intrepid Plainfield residents led the town's ad-hoc High Speed Internet Access Working Group since 2006.[16] New Marlborough's own Broadband Committee formed around that time, and Newman remembered that about a dozen towns in the Southern Berkshires region had formed an unofficial coalition on the subject before this even broader consortium of towns began to "coalesce."[17]

Now the idea of working together "was something that really got off the ground."[18] Previously small, local campaigns took on the character of something bigger. Their vision grew larger, solidifying around a regional broadband solution that would leverage the state's new middle-mile network to bring last-mile connectivity to all of their communities. These broadband champions eventually formed the organization WiredWest to guide their efforts.[19]

A retired lawyer named Steve Nelson from Washington struck upon the mechanism that would enable the local advocates in Western Massachusetts to operationalize their vision: municipal light plants (MLP).[20] Though not unique to Massachusetts, the municipal light plant has played a more central role to the emergence of community broadband there than in perhaps any other state.

A municipal light plant is a non-profit, publicly owned utility that, in most cases, provides energy services to a community. In Massachusetts, MLPs have been around for over a hundred years and are governed under General Law Chapter 164.[21] The first were established to allow municipalities in Massachusetts to ensure affordable, locally-controlled energy supply. For many years, the forty or so MLPs in Massachusetts followed just that model, offering gas and electric services to residents. Eventually, the rules for MLPs were expanded to allow them to provide first cable TV and then coaxial cable-based broadband.[22] Still, as the hilltown broadband organizing began to gain steam in 2010, only a few of the existing MLPs were offering residential broadband services.[23]

> *"A municipal lighting plant or a cooperative public corporation and any municipal lighting plant member thereof may construct, purchase or lease, and maintain such facilities as may be necessary for the distribution or the operation of a telecommunications system."*
>
> — MASS. GEN. LAWS CH. 164 § 47E

This path forward offered an organizational structure and legitimacy to the "dream" harbored by the early enthusiasts in Western Massachusetts, but Nelson had an additional legal innovation in mind that would shape the next few years of organizing: Section 47C of Chapter 164 allows for a collective of MLPs to join together in a cooperative organization.[24]

Regional cooperation was appealing for a number of reasons, not least because banding together added political weight to their demands. Champions in individual towns were committed to bringing broadband to their own communities, but they also thought that it would be cost effective to work together.

Direct Democracy in MA

The nature of local governance in some New England states added one final twist to WiredWest's task. In most of these Western Massachusetts hilltowns, major municipal business is transacted through direct democratic participation by registered voters in annual (or special) Town Meetings. That meant that all of the authorizations that were required — to work with WiredWest, to create an MLP, and to approve borrowing — had to be achieved through a direct vote.

According to Drawe, he and others preferred the legal structure of a cooperative over a 501(c)(3) structure, as it allowed "each town to form their own municipal light plant, and we could all work together."[25] Kulp recalled that, at the time, "the path was kind of clear." A cooperative of MLPs was the way that "we were going to structurally and legally accomplish this task without running into anti-competitive problems."[26]

What followed was a herculean organizing effort. The municipal light plant structure helped give a set of steps to the effort of community champions, but each step came with its own challenges. Up first was legislation to be passed by voters that would authorize the town to begin engagement with WiredWest, the newly formed cooperative organization. Then, Chapter 164 required towns to hold two separate votes authorizing the creation of a MLP. Finally, the town would need to authorize spending or borrowing that would support the construction of a fiber optic network.

Over a period of three weeks in 2010, 23 towns passed the model legislation allowing them to engage with WiredWest. All but one of the votes were unanimous.[27] Over the following month, another 24 joined the movement.[28] And by mid-2011, half of those communities had also passed the requisite two votes authorizing the creation of an MLP.[29] They became the charter members of WiredWest, though many more continued to engage with the cooperative as they moved through their own processes of debate and voting. Within a few years, a total of 44 towns had joined WiredWest and established MLPs.[30]

> *"To see if the Town will vote to enter into immediate discussions with other Western Massachusetts municipalities with the intent of entering an inter-municipal agreement for the purpose of establishing a universal, open access, financially self-sustaining communication system for the provision of broadband service, including high-speed Internet access, telephone and cable television to the residents, businesses and institutions of these municipalities."*
>
> — WIREDWEST MODEL LEGISLATION

All of the authorizations passed during this time were non-binding, including those that allowed towns to join WiredWest. Some communities continued to keep their options open, maintaining active, parallel local committees. Towns could withdraw from the cooperative if they saw fit, and some eventually did. Still, even as WiredWest's membership rolls occasionally shifted, the cooperative played a critical role in efforts to bring broadband to the region over the next decade.

The successful wave of votes gives the impression of a remarkably steady march of progress, but that impression belies the time and commitment that brought it to fruition. "That was an amazing effort," Kulp remembered, "it boggles the mind that we invested so much of our time into this effort with no immediate trade off."[31] Western Massachusetts is a big region, he noted. "We would be driving hours to meet with Select Boards — to give our pitch and get people in those towns to [...] to" take up the matter for a vote.[32]

These advocates participated in phone trees, created tracking spreadsheets, convened monthly meetings, and gave speeches throughout the region. They got press coverage in local newspapers and launched attention-grabbing marketing efforts.[33] They had also done their research. WiredWest generated engineering and market surveys as well as cost estimates using a small grant from the state, funding from several regional entities, donations, cooperative membership fees, and considerable volunteer labor.[34] "We had a baseline of cost and feasibility," Kulp remembered, that helped convince leaders and residents that the plan had legs.[35] What was an "admittedly rather idealistic" plan suddenly "seemed very possible," Newman said.[36]

Along with tying together the work of long-time advocates in places like Plainfield and Ashfield, the WiredWest organizing drive helped activate new leaders in the region. "In every town," Drawe remembers, "we found a local champion."[37] These champions joined the fray, some putting in the miles with Kulp, Drawe and their compatriots, while others worked to keep the matter front of mind for residents in their communities.

A Tremendous Undertaking

When asked how much time they devoted to WiredWest, several members of the Executive Committee estimated that it was in the thousands of hours.[252] Executive Committee members met weekly, sometimes driving over an hour each way for 2-3 hour meetings. Then there were the monthly meetings with towns, any assigned research or feasibility work, and meetings with state officials. Sandisfield resident Jean Atwater-Williams said, "I basically sacrificed a car to WiredWest."[253]

Word spread on the back of these efforts and thanks in part to the strength and consistency of local news coverage. "We were the ones who really educated Western Massachusetts" on the importance of high-speed Internet access, Newman remembered.[38]

WiredWest was planting seeds in fertile ground. In 2010, home Internet connection speeds were not what they are now, of course, but millions of Americans were streaming video on the nascent website YouTube, video calling friends and family on Skype, downloading music, sharing large files to their colleagues via the cloud, or looking at photos posted on a brand-new social media platform called Instagram. Not so in Western Massachusetts. In one dial-up community, officials had to travel to a nearby town to download critical government documents.[39] Residents in communities where wireless was the best option might establish a link and start downloading a document, only for the winds to pick up and the connection be lost. As late as 2017, DSL customers responded to a local news inquiry about Internet speeds with "HELP!!!," with one reporting a download speed of .62 Mbps.[40]

Residents focused on the future of their communities enthusiastically seized on broadband, linking its absence to a host of ongoing quality-of-life concerns. In Alford, the quest for broadband fit right into "a drive to modernize" the town. According to Ortwein, Alford was

attractive in so many ways but "the one downside was there was no connectivity to the rest of the world."[41]

Similar feelings echoed across other small towns in Western Massachusetts. Business owners in Becket complained about impossibly slow credit card processing.[42] Residents told stories of financial and interpersonal opportunities lost: a grandson visiting his grandmother that "had to leave" because he couldn't complete his work; the "inability to connect with clients or customers;" the "painful isolation" that can befall older residents; and the hits to the tax base caused by languishing housing markets.[43] "I have grandchildren and they don't want to come because we don't have broadband," said Otis resident Steve Grossman.[44]

Residents focused on the future of their communities enthusiastically seized on broadband, linking its absence to a host of ongoing quality-of-life concerns.

Percolating beneath many of these individual quality of life questions was a concern shared by many that rural, small-town life was becoming existentially threatened. Before joining the WiredWest initiative, Jim Drawe was a Cummington Selectman for 18 years, and his fear for the future of the hilltowns was profound. "At every town meeting," he recalls, "I'd sit up on stage, and I'd look out across the auditorium [...] and I saw a lot of gray hair and bald heads and no young people."[45] Census data bears out Drawe's impression: residents of these communities skewed considerably older than the state as whole, and older still than the rest of the nation.[46] Without attracting younger residents, some felt, the hilltowns would slowly die away.

Town meeting minutes from this period reveal that obsolescence was a common preoccupation, and that improved Internet access was viewed as part of the solution.[47] Communities feared being unable to attract new residents, property values falling, and schools facing a drop in funding, sending the entire region into a death spiral.[48] When a regional magazine asked the executive director of a local community development corporation "what would help stem the population loss and draw young people to the region," he named broadband as a key driver of revitalization.[49]

It was for all of these reasons that, when WiredWest organizers and other broadband advocates put the plan in front of voters across Western Massachusetts, the response was staggering. In Ashfield, Kulp's hometown, the Town Meeting attracted "one of the biggest turnouts ever. [There was] standing room only in our town hall" for the MLP vote.[50] According to Alford Municipal Light Plant manager Tim Ortwein, the broadband provisions there passed with overwhelming support, "something ridiculous — like a hundred and something [votes] to twelve."[51]The scale of this organizing effort's success was profound. "We created more municipal light plants in Massachusetts within two years than had existed before that at all in the previous 150 years," Kulp remembers.[52]

A nucleus of committed champions had begun seeding a movement. They had pulled together nearly four dozen interested communities into a coalition determined to transform connectivity in Western Massachusetts. They had developed a business plan that would bring a regional fiber last-mile network to most of the region.[53] And through sheer force of will, perhaps, they had built some political power.

Still, as it stood in 2012, the hilltowns of Western Massachusetts had dozens of new municipal light plants on paper but no new broadband infrastructure.

The path for building networks grew clearer over the next two years as the WiredWest leadership team sought to leverage some of their newfound political power to bring state officials on board. Leaders had done something of a phone tour of successful municipal projects — Idaho, Tennessee, and Utah — to consider all the ways that one might finance the network.[54] The cooperative long intended for member towns to pay for much of the construction of the network, but given the high price tag for fiber infrastructure, leaders recognized that they needed to secure "loan guarantees or funding from state, federal, or private sources" as well.[55] "There were some very politically charged meetings with the governor and other public officials," Kulp recalled.[56]

According to Drawe, it was the collective "political muscle" of the dozens of towns speaking as one that ultimately convinced Massachusetts leaders to throw the power of the state behind bringing residential connectivity to the region.[57] In 2014, the state agreed to raise an additional $50 million to fund last-mile network construction, with 80 percent of that earmarked for the construction of local fiber distribution networks in the unserved communities of Western Massachusetts.[58] This money would be critical in turning the broadband dreams of Kulp, Drawe, Ortwein and so many others into reality. The Massachusetts Broadband Institute was tapped to oversee the grants.

Leverett Goes It Alone

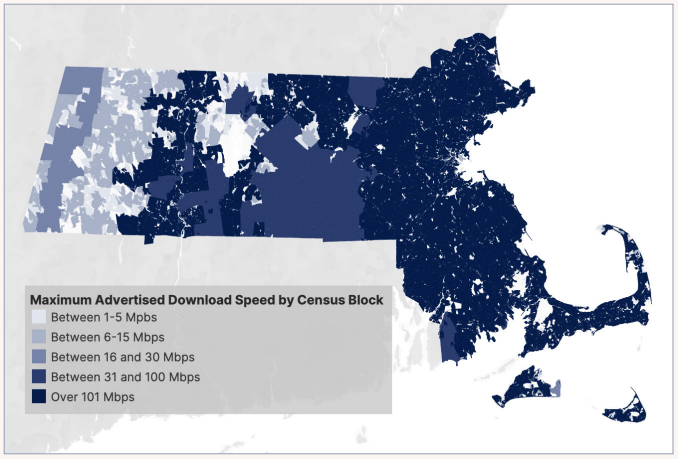
While more than 40 towns continued to organize through WiredWest and fight together for government funding throughout this period, Leverett decided early to move forward on its own. In 2012, Leverett voters overwhelmingly authorized bonding to build the network, which was completed three years later. Because of this alternative route, Leverett is not a primary focus of this report. However, like those towns profiled here, **Leverett** currently uses a public-public partnership operating model.[254]

The State of Internet Access in Massachusetts in 2014

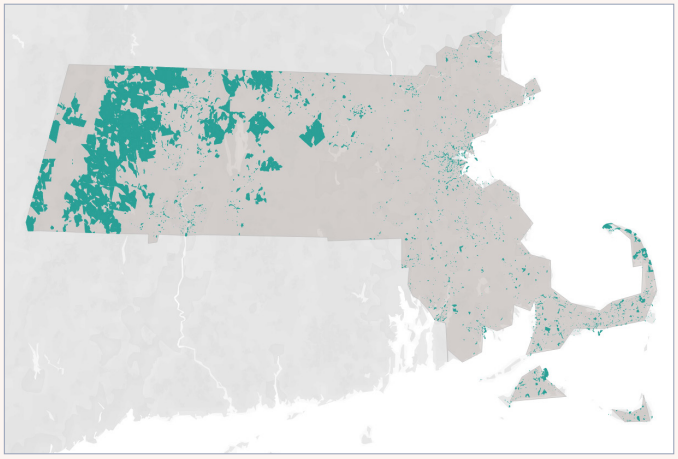
Drawing on December 2014 data from the Federal Communications Commission, these maps help illustrate the availability of high-speed Internet access in Massachusetts. Even after half a decade of organized advocacy on the part of Western Massachusetts residents, the region still lagged behind other parts of the state. According to the data, available speeds in most communities there reached only a fraction of what they did elsewhere. DSL and satellite were often the only technologies available — technologies which simply were not as reliable as the fiber and hybrid fiber-coax (HFC) increasingly enjoyed in more urban areas.

But even these maps overstate the quality of Internet access in Western Massachusetts. The FCC's data collection method allowed whole areas to be considered served if only one person in the area could sign up for Internet access. Moreover, residents frequently complained that their actual speeds did not even approach the speeds they were sold. Finally, this data was entirely self-reported by Internet Service Providers, who were often accused of exaggerating their service areas.

Highest Download Speeds Advertised for Non-Satellite Broadband, December 2014



Census Blocks Where DSL Was Only Non-Satellite Technology Available, December 2014



Data: Federal Communications Commission, Form 477 Data, December 2014.

A Parallel Path in Westfield

While many of the smaller communities of Western Massachusetts were establishing municipal light plants and building a coalition, Westfield, one of the region's larger municipalities, was also considering ways it could improve its own connectivity. Westfield had one distinct advantage: an already strong MLP delivering electricity which had been in operation since 1898.[59] In fact, it was one of the oldest MLPs in the state.[60]

Westfield Gas & Electric (WG&E) owns and manages the power lines throughout town. In the 1990s, WG&E installed a hybrid fiber-coax (HFC) ring in order to implement a supervisory control and data acquisition (SCADA) network to enhance the functioning of the electric utility. At the time, the utility had a "proactive board and General Manager" that was really trying to operate in a forward-thinking way, and the fiber-fed SCADA system was part of that initiative.

In fact, the board was thinking even bigger at the time, considering a $5 million city-wide cable system build out as well. This seemed like a good idea to many cities at the time — more than 100 built HFC networks. While many succeeded, the technology was difficult to maintain and some cities struggled to compete against well-funded national monopolies. While the cable build out project ultimately failed by one vote at city council — "in hindsight, the best failure ever" WG&E's current GM, Thomas Flaherty, says — it typified the utility's long-standing commitment to responding to community needs and emerging opportunities.[61]

WG&E's long history of service to the town had built both capacity to do this job and trust from the community.

It was in the early 2010s, just as activism in the smaller hilltowns was ramping up, that WG&E leadership began to revisit conversations about communications technology. Around 2011, the board again considered a cable plant, and again decided that a municipally-owned cable service simply could not find a competitive edge. Only a few short years later, WG&E's leaders decided to shift gears and consider a more audacious and yet potentially more sustainable plan: fiber-to-the-home. They were driven by what Flaherty says is a constant refrain at WG&E — "how can we better Westfield?"[62]

WG&E's experience with the legacy fiber installed in the 1990s had created a reservoir of expertise and knowledge that proved very helpful. This could be a financially competitive, self-sufficient enterprise.

Unlike many of the other hilltowns, who had no broadband to speak of, most Westfield residents did have a service option from a big cable company, but it was far from universally beloved. Flaherty noted that there was often "such animosity" that residents were hungry for "an option that the community can get behind." "It's really been a monopoly" out here, he said.[63]

Competing with an established Internet service provider was risky, so WG&E got approval to begin with a pilot project. Buttressed by a $2 million loan from the electric division of the company, the project got underway in 2015.[64] They chose a neighborhood with some large commercial entities as well as a mixture of low- and middle-income residents to roll out what they called **Whip City Fiber**.[65]

The success was immediate. Not only were subscribers signing up in large numbers, but "word of mouth started spreading, and other parts of town were then saying, 'Well, how can we get it?'"[66] Proof of concept secured, Westfield moved forward swiftly with an expanded service footprint. Scarcely more than a year into the new Whip City Fiber's existence, city leaders approved a $15 million bond to fund construction throughout about 70 percent of Westfield.[67]

Though not without challenges, Westfield's journey to broadband was sped along by a combination of factors. WG&E's long history of service to the town had built both capacity to do this job and trust from the community. The city could move quickly and save on costs because it had key skills and experience on staff, and because it owned the poles on which the fiber would be strung.[68]

At the same time, in part because Westfield was a larger city with this existing city-owned asset, they could self-finance the project. In other words, Westfield wasn't beholden to the state to support any portion of the work; it could make progress on its own time and its own terms. The same could not be said for the many smaller towns that had also been clamoring for connectivity, many for almost a decade. With a limited number of potential subscribers, the hilltowns required financial help to make the numbers work.

Small Town Municipal Broadband Meets Setbacks with Resilience

"We've endured a constant state of flux."

— PLAINFIELD RESIDENT HOWARD BRONSTEIN[69]

LAYING THE GROUNDWORK FOR FINANCIAL READINESS

As Westfield was undertaking its own pilot fiber-to-the-home build, the community organizing around broadband in many of the other towns continued apace. But while the years between 2014 and 2017 were marked by steady and quick progress in Westfield, advocates and champions in the hilltowns faced a more tumultuous period — one of stops and starts, setbacks and resilience.

After piquing the interest of almost four dozen communities in exploring the possibilities of regional community-owned broadband, WiredWest began to get serious with the next steps for network development. Working with a contractor, it commissioned a feasibility study and developed cost estimates, determining in 2015 that a network serving the thirty or so towns still involved in the WiredWest cooperative at that point would cost nearly $80 million.[70] Anticipating state funding of about 40 percent, the cooperative estimated that communities would need to supply the remaining amount.[71] Each town was provided with information detailing its individual contribution.

Starting in 2015, WiredWest leaders again traveled to meet with residents, hoping to convince voters to pass a measure authorizing their Select Boards to allocate or borrow the required funds to finance the network.[72] For many of these communities, some as small as a few hundred residences, the money to build the planned network simply could not be found in the regular budget. Towns would have to borrow to meet such a substantial cost. Ashfield borrowed more for broadband than it had for

Municipal Debt in MA

In Massachusetts, there are legal limits to the amount of revenue towns can raise through property taxes. This rule is called "Proposition 2 ½." Town voters can decide to exceed those limits to pay for a major capital investment. In 2015, towns that voted to authorize broadband borrowing were also required to pass a measure allowing this exception, called a debt exclusion.

any other capital project ever, including the town's elementary school. [73] And Ashfield was not alone. Drawe remembered that, in most cases, the borrowing required was "greater than in the entire existence of town."[74]

It is never easy to convince voters to increase their own taxes, and these projects carried some risk. But many residents felt that the possibility of moderately higher taxes was well worth it in exchange for a community-owned asset that would ensure full access to modern opportunities through high-speed, high-capacity, reliable Internet access.

WiredWest organizers saw enormous success in the borrowing authorization campaign, just as they had during the 2011 push to create MLPs. WiredWest leaders again crisscrossed the region, holding meetings in every member town.[75] During the period, 24 communities formally associated with WiredWest authorized a total borrowing of over $38 million, with record turnouts reported in many cases.[76] The number was even higher when including towns that were still considering independent options — nearly $50 million across 29 total localities.[77]

In an attempt to both gauge and drive interest in member towns, WiredWest also launched a pre-subscription drive. Residents were asked to send in a "deposit" of $49 and indicate to the cooperative what type and level of services they anticipated purchasing. WiredWest also told communities that a 40 percent subscription threshold would need to be met before construction could get underway. Over 6,000 potential subscribers signed up within the first three months of the campaign, with more than a dozen towns exceeding the goal.[78]

Voters Authorize Broadband Borrowing, Selected Towns[255]

Town	Date	Y-N	Amount Authorized
Alford	Aug. 2015	133-8	$1.6M
Ashfield	Sep. 2015	275-59	$2.3M
Blandford	May 2015	120-13	$1.8M
Chesterfield	June 2015	135-4	$1.5M
Cummington	April 2015	91-5	$1.4M
Goshen	June 2015	240-0	$1.4M
Leyden	May 2015	90-33	$1M

Town	Date	Y-N	Amount Authorized
New Salem	June 2015	189-1	$1.5M
Otis	Oct. 2015	321-16	$4M
Plainfield	April 2015	168-3	$1.1M
Rowe	May 2015	83-0	$0.9M
Sandisfield	May 2015	189-91	$2.4M
Washington	May 2015	100-7	$0.8M
Windsor	May 2015	102-13	$1.3M

Data sampled from towns still considering building municipal broadband, including one that later changed course.

TROUBLE WITH MBI, PART ONE: REGIONALIZATION

However, just as organizers were seeing such great success with local voters and potential subscribers, the relationship with state officials began deteriorating. Throughout the early 2010s, MBI seemed supportive of WiredWest, even giving joint talks in the region and offering

a small planning grant to the cooperative.[79] Atwater-Williams remembered that an early leader of MBI told them, "If WiredWest did not exist, we would have to invent you."[80] That relationship crumbled over the course of 2015. Recollections vary somewhat on what led to the breakdown, but what is not in dispute: the collective momentum and organizational legitimacy of the WiredWest initiative that had taken half a decade to build was nearly undone over the course of one year.[81]

The collective momentum and organizational legitimacy of the WiredWest initiative that had taken half a decade to build was nearly undone over the course of one year.

In January of 2015, after a change in the state's political leadership, MBI hired a new director, Eric Nakajima. The department soon divided up the $40 million that had been designated for last-mile connectivity in unserved towns, earmarking $18 million for professional services and $22 million for construction.[82] In April, MBI conditionally promised WiredWest a significant portion of the funding.[83]

But then a new policy adopted a few months later seemed to imperil the WiredWest model. While the motivation behind the change remains unknown, the crux of the dispute was the ownership model of the cooperative. Suddenly, MBI took a new stance: that "regional broadband networks…will be owned by their respective municipalities."[84] WiredWest's plan was for the organization itself, a cooperative of municipal MLPs, to own the full regional infrastructure on behalf of the towns. This facet of WiredWest's plan became one of the primary points of critique from MBI.

Caught off guard and attempting to answer MBI's concerns, WiredWest issued a draft agreement late in 2015 changing the ownership structure to an LLC in which communities owned WiredWest. However, this did not resolve the brewing conflict, and in December of 2015, MBI issued a scathing rejection of WiredWest. Consultants from a firm called Wipro hired by MBI argued that the initiative's financial model was unfeasible in both its expected costs and expected revenues. The report took special issue with what the consultants considered an unachievably high number of anticipated subscribers, especially considering the amount of seasonal properties in the network's footprint.[85]

WiredWest sought to fight back against the Wipro report's contentions, leveraging a much rosier review of the business model by a different consultant group and issuing a point-by-point rebuttal to many of the concerns raised. WiredWest's consultants concluded that the "financial model has been well designed and depicts a reasonable portrayal of its business."[86]

The fine details of this dispute have been lost. However, comparing the details in each report seems to suggest that Wipro did only a cursory reading of WiredWest's feasibility study. The crux of the dispute was how many subscribers the network would need in order to be self-sustaining. Based on responses (and deposits) from nearly 7,000 future subscribers about which service tiers they would purchase, WiredWest had generated a financial model showing sustainability with a 48 percent take rate — which was about 6,300 full-time and 2,300 seasonal subscribers. Given that there were already 7,000 people on board, WiredWest leaders felt secure. Instead of considering the cooperative's research, Wipro seems to have

ignored the clearly stated intentions of thousands of future subscribers and assumed that every household would sign up for the lowest tier of service. Under these conditions, Wipro told the state that the network would need to achieve a 92 percent take rate to meet its revenue goals. Besides the stated preferences of actual future subscribers, rural fiber ISPs tell us that people often subscribe to higher tiers after waiting so long without high-quality access to the Internet.

Regardless of the soundness of its consultants' arguments, MBI's attitude change was a blow to WiredWest, and Nakajima told local leaders directly that MBI would discourage towns from working with the initiative.[87] The complete breakdown was illustrated by a mid-December meeting in which scores of WiredWest supporters were barred from entering due to space constraints. "'I'm a member of the New Salem Board of Selectmen, and I can't get in," Wayne Hochey told *MassLive*.[88]

Supporters of WiredWest protesting at a meeting with MBI. Photo courtesy of Larry Parnass at *The Republican*.

Some attributed this sudden about-face to the state's recent change in political leadership. Under Governor Deval Patrick, Massachusetts appeared generally amenable to the idea of a regional public broadband network. Governor Charlie Baker's appointees brought an almost immediate change in perspective. One leader of WiredWest later lamented that they had not secured a formal agreement before the change in leadership. "That should have been the priority."[89]

Beyond the political changes, many of those involved in the community organizing during that period say that MBI officials had come to see the WiredWest plan as simply too large and too risky. MBI "was full of lawyers who were risk-averse," Drawe said.[90] Kulp echoed that sentiment: "My recollection is just that the state felt very uncomfortable, putting responsibility for such a big project" on the volunteers at WiredWest. "It just felt really risky" to them.[91]

Amidst this increasing uncertainty around WiredWest, Otis opted to withdraw from the cooperative in the middle of 2015, and instead authorized borrowing in October to work directly with MBI on the buildout. One of the larger communities to have joined the initiative, Otis' withdrawal was a blow to WiredWest, and recriminations between the two parties reflected a soured relationship.[92]

After Otis, some additional communities decided to move forward alone. Their reasons were a mixture of practical and philosophical. Some remember feeling like their size put them at a disadvantage when trying to collaborate with such a large number of localities with divergent interests. "For us," Alford MLP Manager Ortwein says, "it was just more advantageous to go ahead, use the resources in town and start pushing this along."[93] Alford had been engaged with but never formally joined the cooperative, and decided relatively early in 2015 to move forward independently.[94] Others, like Leyden and Wendell, echoed MBI's concerns about ownership, and began taking steps to develop independent solutions.[95]

Still, many involved in the WiredWest effort did not give up, and continued to press state officials to reconsider their opposition to the regional plan. In the subsequent two years, the cooperative offered a new, in-depth financial comparison between a regional solution and individual municipal networks and sought to gather support for resolutions affirming regionalization.[96]As late as 2017, local residents and advocates continued to publicly highlight the benefits of a regional solution.[97] Gathered for an information presentation from WiredWest in January, representatives from numerous towns found the pitch compelling, given the capacity limits of many local officials. One representative from New Ashford, Jason Jayko, noted that he worked an IT job, was chairman of his town's Select Board and served on its finance and broadband committees. "There is no way to be able to manage it ourselves," he told a local news outlet.[98]

> *"We have to regionalize with broadband the same way we have to regionalize with school districts."*
>
> — DOUGLAS MCNALLY, WINDSOR SELECT BOARD MEMBER[99]

In a meeting called by the state in February, residents expressed dismay at what they considered stonewalling from the state. "I am completely dumbfounded by the lack of interest in working with an organization that represents the majority of the towns that are affected," Charley Rose of Worthington told MBI leaders at the meeting. Becket resident Jeremy Dunn called on state officials to "recognize [the practicality of regionalization] and stop opposing us."[100]

WiredWest organizers also continued to be a resource for local communities. The cooperative's robust web presence included in-depth information about MLP startup and operational considerations, financing options, state readiness requirements, and sample legal documents.[101] The cooperative sought guidance and insight from Leverett, for instance, about the town's MLP and network operations and linked to a dropbox with examples of surveys, RFPs, and contracts.[102] As the state's commitment to community-led broadband solutions appeared to be waning, WiredWest poured even more time and energy into strengthening the network of knowledgeable and empowered local champions.

Despite these efforts, faith in the possibility of a regional public broadband option faded over 2016 and 2017, even among those who remained philosophically committed. "It seemed like the right thing to do was [...] join up and leverage economies of scale and be able to use the expertise of one individual instead of having to do this all ourselves," Kulp says, "but the state just wasn't going to support that."[103] More and more towns that remained members of WiredWest began signaling their openness to a range of service options.[104] Given these conditions, advocates like Kulp sought ways to salvage the time and effort already expended and move individual town projects forward.

By 2017, WiredWest also appeared to have seen the writing on the wall and sought to rework its model in response to MBI's demands. Its initial 2015 reaction to the state still positioned the collaborative as the network owner, but in the ensuing years WiredWest shifted again. Instead,

WiredWest agreed that towns would retain individual ownership, with the cooperative serving as operator.[105] This compromise marked a turning point. Though the organization remained deeply involved in advocacy and preparedness efforts, the work being done in individual localities would necessarily take center stage.

TROUBLE WITH MBI, PART TWO: PRIVATE PROVIDERS

The conflict between MBI and WiredWest that reached a crescendo in late 2015 was only the first of several roadblocks MBI placed in the way of municipal broadband development in Western Massachusetts. The next year brought more shakeups in the MBI team that led to further changes to the funding program. In September of 2016, after prodding from the governor, MBI adopted a policy that spoke of flexibility but noted that, "whenever possible, towns should look to financially established, private sector partners… without municipal ownership of the broadband assets."[106] Furthermore, when these private proposals were solicited in November, the RFP included an explicitly stated preference for large companies. A minimum annual revenue of $100 million was the first eligibility criteria listed.[107]

The preference for individual town ownership was the sticking point with WiredWest only a year earlier, but now MBI appeared to be abandoning town-owned projects entirely.

The preference for individual town ownership was the sticking point with WiredWest only a year earlier, but now MBI appeared to be abandoning town-owned projects entirely.

Over the next year, many communities were pressured to accept these private provider proposals. MBI's Board Chairman Peter Larkin attended a May 2017 Board of Selectmen's meeting in Becket to discuss what he saw as the benefits of a private provider proposal. In his telling, the private proposals were solicited because earlier municipal plans "proved unworkable," and this approach "expand[ed] the options to accomplish the goals of the MBI program." Meeting minutes note that Larkin explicitly "recommended that the town consider signing a contract with Charter Communications" because its 60 Mbps service "would handle an average family." After community members raised concerns about "worse service that covers fewer people," Larkin pushed back, calling a fiber network "an overbuild" in Becket and comparing "building a high-speed fiber network to building a highway when only two cars are driving on the road."[108]

In some cases, state officials went so far as to offer the incumbents more money than they were offering the towns.[109] In 2018, Larkin offered $2.4 million in grants and incentives to Charter Communications to build in New Marlborough, which at that point was a WiredWest member — an amount exceeding the town's original allocation of $1.7 million. When asked if the additional state funds would be available to a community-owned network, Larkin's response was succinct: "No."[110] New Marlborough was also expected to pay Charter an additional $720,000 plus interest over fifteen years.[111]

To dissatisfied local advocates, MBI's new emphasis on private providers felt like a betrayal. What had appeared only a few short years before to be a triumphant culmination of the commitment and enthusiasm of hilltown residents now seemed destined to be another

handout to monopoly providers who had never expressed much interest in these communities before. Atwater-Williams recalled that Larkin and MBI were "absolutely against public-public partnerships."[112] Newman put it even more baldly. To him, MBI was "bought and paid for by the incumbents."[113]

In some cases, state officials went so far as to offer the incumbents more money than they were offering the towns.

Some communities took the bait. Worthington, for instance, agreed to work with Comcast. All told, the company received $2.2 million in incentives from the state, including money that would be redirected from the town's regular state allocation to Comcast.[114]

New Marlborough ultimately decided to take the deal with Charter on the fiber-to-the-home network.[115] Sandisfield moved in 2017 to work with a private provider, despite objections from WiredWest board member Atwater-Williams, who criticized the Select Board for not calling another vote on the changes and resigned from the broadband committee in protest.[116] Other towns followed suit. In each of these communities, voters had passed resolutions in support of WiredWest and created an MLP. Some had even authorized borrowing to pay for the cost of construction. Ultimately, however, leaders flinched in the face of MBI's preference for a private provider and balked at the prospect of taking on any costs.[117] The Western Massachusetts municipal broadband movement, over 40 towns strong in 2010, dwindled significantly in this period.

Ironically, the municipal broadband projects in some localities were saved by the continued disinterest of private providers. Leaders in Ashfield and Alford, for instance, noted that they would have considered moving forward with an outside provider, had that been on offer. Ortwein says bluntly about Alford, "nobody wanted to touch us."[118] In Ashfield, despite concerns about Comcast's reputation for poor customer service and fears that they would not continue to invest in technology, there remained a willingness to "entertain proposals."[119]

An Opportunity Lost and a "Crushing Disappointment"

Reflecting on the decision by their towns to accept an offer from a private provider rather than continue to pursue municipal broadband, Atwater-Williams (Sandisfield) and Newman (New Marlborough) offered several overlapping explanations. Both attribute the decision to the members of the Select Boards, which simply were not committed to the project in the way that they were in other towns. Atwater-Williams was deeply let down by the choice, saying simply that the Board had "neither the courage nor the vision" to stand up to political pressure and see it through.[256] Atwater-Williams and Newman also identified a deeply-seated "risk-aversion" among the leadership of their towns.[257] Besides what they saw as the financial risks, members of the Select Boards resisted taking on the responsibility of network ownership. Newman remembered one Select Board member telling him, "I don't want to get a call in the middle of the night that you don't have Internet."[258]

Both Newman and Atwater-Williams said they faced "crushing disappointment" as they watched their towns decide to "take the easy way out" and work with a private provider.[259] Disillusioned after thousands of hours of volunteer effort in service of making their communities stronger, they withdrew from extensive civic participation.[260]

But in other cases, towns that had been active in this movement for half a decade or more pushed firmly back on these policy switches. For some, the matter was straightforwardly one of preserving local power, while dissatisfaction with monopoly providers also weighed into the decision for others. Kulp remembered that some involved in the WiredWest effort felt "philosophically that it was important to push this from a municipal perspective."[120] Communities like Heath "did want to own it so that they could make the decisions," said current MLP Manager Bailey Cole. Becket resident Jeff Piemont told Peter Larkin and the broadband Committee that "he would like the town to exercise control over its destiny," with other residents raising concerns about poor customer service and the low likelihood of technological upgrades with a private provider. [121]

The Power of Local Media

These are headlines from just a few of the dozens of news articles written about WiredWest and the broadband efforts in Western Massachusetts during the period. Papers like *The Berkshire Eagle* and *The Republican* covered the events extensively, playing a critical educational role in an environment with limited access to online media.

Charlemont received multiple private offers — including one that would have required the town to cover over $900,000 in costs and would charge subscribers $95 a month for 50 Mbps of service with a minimum two-year contract.[122] Though the Broadband Committee unanimously recommended the community-owned option, two out of three Select Board members supported the use of Comcast and the matter was put up to a town vote. In the final December 2018 showdown, voters rejected the caution of Charlemont's leadership and approved a municipal network handily, with "among the highest voter turnouts ever."[123] Tim Newman and Jean Atwater Williams both noted that the same opportunity was denied to voters of New Marlborough and Sandisfield, where the Select Boards unilaterally made the decision to abandon municipal broadband.

BROADBAND CHAMPIONS BREAK THROUGH THE IMPASSE

Meanwhile, in facing down what they considered stonewalling and pressure to accept subpar solutions, Western Massachusetts broadband champions renewed the state push that had been so essential in getting the state's $40 million commitment to begin with. Local broadband committee members and regional champions hounded the offices of the Governor, state representatives, and MBI, driving hours to Boston to lobby decision-makers for a path forward.[124]

Their message was clear: of course building Internet infrastructure had some unique technical requirements, but there was less to fear — less risk — than MBI's lawyers and consultants would suggest. Was it very different, after all, than "giving us that money to build a road?" In the end, "we're building infrastructure," Drawe said he told them.[125]

Local residents sought to hold the state's feet to the fire at public meetings. In one meeting after MBI's new plan to incentivize private development had become clear, hilltown residents expressed their frustration with the slow pace and heavy-handed attitude of state officials.

"We've endured a constant state of flux," one Plainfield resident said. Advocates demanded that the state get out of the way of progress and release the promised money to each community with urgency. "It's time that MBI acknowledge its failure, drop its paternalistic approach and simply grant money to the towns to get the job done," said David Kulp at the time.

Local champions also kept up the community-level organizing. Plainfield's broadband committee, which included Selectboard members and other "representatives from across the town," met sixteen times in the second half of 2016, "including one brief but memorable meeting held outdoors in a December snowstorm due to a lack of key to the town hall."[126] The next year, the volunteer MLP board conducted significant community outreach, including two community meetings updating residents on changes to the state broadband program.[127]

Though Charlemont's experience shows communities continued to receive offers from private providers (and pressure to accept them) throughout 2017 and 2018, local broadband champions' vocal rejection of MBI's constantly shifting strategies was impactful. In March of that year, the Governor redirected $20 million of the last-mile funding overseen by MBI to the Executive Office of Housing and Economic Development (EOHED). Under the new plan, EOHED would offer grants directly to the towns to facilitate their broadband developments. The remaining funding from the original $40 million would be spent subsidizing private network development in communities that did not elect to own the network.

EOHED grants began to be announced in the summer and fall of 2017. Ranging in amounts from $280,000 for New Ashford to just over $2 million for Becket, the 20 communities received nearly $19 million between them.[128] "When I made the announcement at Town Meeting," Kulp told a news outlet at the time, "the room broke out into cheers."[129] These awards launched the next phase of municipal broadband development in the unserved hilltowns of Western Massachusetts. After another three years of determined effort, 20 communities were finally poised to begin construction on town-owned broadband networks.

Grants to Towns from MBI in 2017

Town	Grant Amount
Alford	$500K
Ashfield	$1.4M
Becket	$2.1M
Blandford	$1M
Charlemont	$1M
Chesterfield	$900K
Colrain	$1.3M
Cummington	$800K

Town	Grant Amount
Goshen	$800K
Heath	$800K
Leyden	$700K
New Ashford	$300K
New Salem	$800K
Otis	$1.8M
Plainfield	$700K
Rowe	$400K

Town	Grant Amount
Washington	$500K
Wendell	$1.7M
Windsor	$800K
Mount Washington	*$600K*
Shutesbury	*$900K*
Warwick	*$500K*

Note: Towns in italics built municipal networks but do not operate their networks in partnership with WG&E and are not the primary subjects of this report.

Finally Lighting Up Western Massachusetts

> **"Since we were basically not in this to make money, we wanted to go with somebody who was also not in it to make money."**
>
> — WIREDWEST EXECUTIVE DIRECTOR JIM DRAWE ON PUBLIC-PUBLIC PARTNERSHIPS[130]

After half a decade of work and countless conversations, partnerships between local governments had been baked into the culture of broadband organizing in Western Massachusetts. And though WiredWest remained a valuable ally for some communities, a new partnership opportunity would finally help get these towns — which had already come so far — connected. Though only a few years into its own journey, Westfield, with its expanded network now under construction, saw an opportunity for mutual benefit as the Western Massachusetts municipal projects got underway. Because it had its own resources to leverage, Westfield was able to execute more swiftly than many of the smaller hilltowns. By late 2017, Westfield had evolved from new-kid-on-the-block to experienced hand. Drawing from this growing expertise, WG&E would prove a vital partner for the many municipal broadband projects that had endured this drawn out saga.

The entrance of WG&E into this story was gradual and informal at first. Westfield GM Flaherty remembered that Otis was one of the first communities to contact them, in 2015. "Just free advice," Flaherty described the initial casual conversations about WG&E's experience and what Otis could learn from them. As those conversations occurred with more frequency and trust was built, "somebody finally said [...] 'Can you help us? Can you design it?'"[131]

After Otis saw success working with WG&E, other communities began to consider Westfield as a viable partner that would satisfy state officials while allowing localities to remain in control. Drawe says that local advocates and Westfield met jointly with state officials, convincing them "that it made sense to partner with WG&E to get the networks built."[132] WG&E won approval from the state as the only designated Owner's Project Manager for the Last Mile program and quickly became an integral part of municipal broadband throughout much of Western Massachusetts, ultimately overseeing construction in 20 communities.[133]

The public-public partnerships that emerged in the building phase brought benefits to both parties. For the localities that chose to work with WG&E, the partnership relieved them of responsibilities and duties that would have stretched their capacity. "We saw them as a really valuable resource," Kulp remembered.[134] They were an established entity that had access to procurement specialists, network staff, and field engineers. They knew how to prepare a pro forma, which offers a breakdown of the future financial outlook of a network, and how to manage complex projects. As an active utility, they also knew how and when to push back on pole replacements and make-ready costs. These were all skills, capacities, and resources that were not readily available to MLPs run by volunteers or Managers drawing a small stipend, and serving towns of, oftentimes, less than a thousand residents.

For the localities that chose to work with WG&E, the partnership relieved them of responsibilities and duties that would have stretched their capacity.

The fact that WG&E was a public entity offered additional benefits. Partnering MLP to MLP meant that the relationship could often be governed by intermunicipal agreements, which communities were familiar with and which did not require competitive sourcing. For small towns that relied extensively on volunteer labor for their broadband projects, this added benefit meant avoiding the labor and costs associated with drafting an RFP and managing procurement.

More broadly, and equally importantly, there was a shared language and shared value system. Even some municipalities that did issue an RFP and considered other partnerships before settling on WG&E felt that there was some unique value in working with another public entity.[135]

Towns also found it helpful to be moving through construction roughly at the same time as their neighbors. Though each community was contracting with WG&E directly, the spirit of collaboration and cooperation forged in the WiredWest organizing drives continued. Here was another, more informal kind of public-public partnership. "We maintained regular communications, meetings, and discussions," David Kulp said, "and the fact that most of us were all working with Westfield, we could also keep track of how different towns were handling different steps of the process and we could support each other that way."[136]

In 2020, at the height of construction across the region, he and others from Charlemont, Chesterfield, Cummington, Goshen, and Windsor met regularly with Plainfield's MLP Manager "to share lessons learned and collaborate on solutions."[137] Tim Ortwein from Alford likewise remembered visiting some of the communities that started their construction later, sharing Alford's experiences.[138] What was for so many of these MLP managers a shared, decade-long, sometimes tortuous experience continued to bind them together in useful ways.

With project management services secured, towns could begin to perform make-ready, a process in aerial fiber construction in which the poles are prepared for the addition of the new attachments by reviewing them for soundness and either replacing poles or moving existing attachments as needed. The state grants awarded throughout 2017 were intended to offset most of the costs associated with this process.

Make-ready in Westfield itself had been eased considerably by the fact that WG&E owned the poles. In the other communities in Western Massachusetts, the poles were owned by some combination of National Grid, Verizon, and Eversource. Attaching to someone else's poles is a significantly more complex endeavor, and tensions often flare in the process. Investor-Owned Utilities (IOUs) and other pole owners can respond exceptionally slowly to make-ready requests and require attachers to contract with one of a very small number of approved firms for the work itself. According to network builders, there is also a notorious history of IOUs trying to pin them with the bill for pole replacements after years of systematic pole neglect, and inflate the price for new poles as they do it.[139] Alongside the sometimes drawn-out process of permitting in general, these tactics cause delays and significantly inflate costs.

Not only were the staff at WG&E familiar with the minutiae of the make-ready process more generally, their ability to double-check the demands of the pole owners saved the hilltowns at least $760,000, according to the state.

In addition to these normal difficulties, in Western Massachusetts the main pole-owning entities were "hit with make-ready on 2,000 miles of poles" at once, slowing progress and increasing prices even more.[140] WG&E often found that "trying to get them to do the make-ready work or get it done in a way that follows some semblance of building out, it's just banging your head against the wall."[141]

Here, WG&E's long experience with poles was an asset. Not only were the staff at WG&E familiar with the minutiae of the make-ready process more generally, their ability to double-check the demands of the pole owners saved the hilltowns at least $760,000, according to the state.[142]

In some towns, concerns about make-ready cost overruns were exacerbated by a realization that MBI had underestimated the number of poles that would be used in network construction, underfunding the make-ready portion of their buildouts. Becket, for instance, found that it would need to build almost 50 percent more than the estimated number of fiber miles and that nearly 800 poles would need replacement, ballooning overall cost estimates.[143] Charlemont said that MBI "woefully" underestimated their utility poles by 40 percent, which imperiled their plan entirely.[144] Noting that the state's make-ready estimates were created using a computer

model rather than actual local knowledge, Goshen estimated a shortfall of about $800,000, more than its entire grant allocation.[145]

In response to complaints, EOHED initiated a program called the Last Mile Contingency Fund, which made additional funds available to cover make-ready costs.[146] Brain Noyes, a state spokesman, told the *Berkshire Eagle* that additional funding would be available as towns demonstrated actual overages in make-ready costs. He said the state would guarantee covering 75 percent of the anticipated costs, and release the remaining 25 percent only if funds remained.[147] Towns like Goshen received enough additional funding to cover the costs of their make-ready, oftentimes hundreds of thousands of dollars, which served as a critical source of support in what would really have been a crisis.[148]

Local leaders also credited Governor Charlie Baker's office with speeding along the make-ready activities.[149] "'The governor has been diligent in pestering the utilities. They're like bulldogs after the utilities. The governor is himself sitting in on teleconferences or face-to-face meetings," said Windsor Select Board member Douglas McNally in 2019.[150] Though frustration with the pace of progress remained, make-ready crews slowly rolled through Western Massachusetts over the next three years preparing thousands of miles of poles for fiber construction.[151]

That process neared completion in most of the towns between 2018 and 2019, and local broadband committees and leadership turned back to the question of financing the network. Each community had previously voted to authorize borrowing to cover the remaining costs of construction, but the votes in 2015 did not actually commit the town to any specific course of action (some communities that had passed borrowing authorizations opted to take an offer from a private provider).

It is common for municipalities that are self-financing broadband networks to work with a team of financial professionals to issue a bond. In issuing the bond, the municipality would receive the funds for immediate use, and would pledge to pay off the bond within a particular term at a set interest rate determined by the current market and the municipality's creditworthiness.

However, issuing a bond carries certain requirements that are often difficult for a small town to meet. For one, they often do not have credit ratings, which can hurt them on the market or take time and resources to obtain. Secondly, bonds require annual financial audits and other compliance measures, which can cost upwards of $15,000 a year — a substantial expense in a small-town budget.[152] Finally, while the municipality's treasurer or primary financial officer might have experience in some kinds of municipal debt, small towns would likely need to work with outside experts to navigate the bond market. For communities like Alford, Tim Ortwein said, "issuing bonds would have just been too costly for us."[153]

For all of these reasons, most of these communities eschewed the bond market and instead took advantage of an unusual state municipal debt program, the State House Note program. Massachusetts describes the State House Note program, established in 1911, as a "convenient,

no-cost note certification procedure for the issuance of short-term debt and long-term serial and refunding notes" and "an alternative to the certification of Notes procedure by commercial banks."[154] The program allows municipalities to take out one-year loans, renewable for up to ten years, or a longer-term serial note. The town makes interest-only payments in the first two years and then begins to pay off a portion of the principal as well.[155]

These State House notes are more like a bank loan than a bond and are considerably less expensive and onerous to obtain. Because they are shorter-term borrowing, interest rates are often lower than on the bond market. The program also allowed communities to borrow as needed instead of going to the bond market for the entire authorized amount at once.[156] A final benefit is that "the state handles a majority of the paperwork," remembered Alford's Ortwein.[157] As a result, it was an attractive option. Of the localities under consideration here, only Cummington and New Ashford did not appear to use the state house note program at all.[158]

Each town had a slightly different approach to the task of paying the debt service. In some, like Ashfield, voters had been promised that "we weren't going to raise property taxes to pay for the borrowing."[159] Property taxes could be used to pay for the interest on the loan within the current tax rate, but payments on the principal would need to come from the income generated by the network itself. However, Ashfield also designated some portion of its accrued "free cash" — excess money budgeted but not needed in a given fiscal year — to broadband costs before the build even began, in their case about $400,000.[160]

In Alford, a much smaller community, the agreement at the start was that the debt service would be split between the municipal light plant (through subscription revenue) and the Town itself.[161] In the very early stages, Alford used a rolling, yearly note to borrow what was needed. At the end of each year, Alford would renew the note and borrow any additional money that was needed. In 2021, Alford converted the annual note to a five-year State House Note.

Some went so far as to pick up the shovel themselves: Plainfield volunteers spent two weekends clearing trees and brush to make room for the hut and later dug trenches for the fiber.

A number of communities, like Ashfield, ended up borrowing less than they had originally expected, as a result of being able to draw from free cash or stabilization funds or allocate unanticipated COVID-19 stimulus funds towards the project. Charlemont allocated $350,000 in American Rescue Plan Act (ARPA) funding to the project. This and other cost-saving measures resulted in the community borrowing less than two thirds of the originally anticipated amount.[162] Chesterfield allocated nearly $400,000 in funding from the Coronavirus Aid, Relief, and Economic Securities Act (CARES) and ended up borrowing about half of what they anticipated.[163] New Ashford, a tiny town of about 250 residents, managed to find the funding for the entire network and all drop costs in its Free Cash and Stabilization funds, never borrowing any of the $400,000 authorized by voters in 2015.[164]

Some also kept costs down by other means, including volunteer labor. Nearly all local broadband champions served as volunteers; MLP directors often received only a nominal salary. Some went so far as to pick up the shovel themselves: Plainfield volunteers spent two

weekends clearing trees and brush to make room for the hut and later dug trenches for the fiber.[165] Washington volunteers likewise prepared the concrete pad for their network's hut and helped install an underground conduit, to the tune of $230,000 in estimated savings.[166] Windsor negotiated a deal with its energy provider to allow the company to install larger poles in exchange for a lowered rate on make-ready costs.[167]

The involvement of Whip City helped in one additional, and quite significant, way related to costs. In 2018, the Federal Communications Commission (FCC) launched a broadband subsidy program called the Connect America Fund II (CAF II) Auction. CAF II offered financial incentive to providers to bring Internet connectivity to previously unserved communities, defined as census blocks where not a single broadband plan with speeds of at least 10/1 Mbps was available or already supported by the FCC.[168] Many of the Western Massachusetts unserved towns were eligible — including all of those working with WG&E.

As a more experienced operator, WG&E may have been more attuned to federal programs of this sort. To Flaherty's recollection, "we presented [the idea of applying] to the towns and then we drove the application process."[169] He remembered that it was a "complex process," because Westfield had to come to an agreement with each community, and the agreements also had to be approved by WG&E's board as well as the Westfield City Council.[170] Later that year, the FCC announced WG&E as the recipient of CAF II funding in 21 Massachusetts communities (one, Royalston, ultimately did not decide to build).[171] After the state stepped in with critical support to help secure the required letter of credit, the projects were officially in line to receive approximately $10 million over 10 years, with a distinct amount allocated to fund construction in each town, ranging from $10,000 to $100,000 annually.[172] Funding would flow through Westfield, as the applicant, to each locality.[173]

WG&E began disbursing CAF II funds to towns in 2024, when 95 percent of the construction was completed across the service area and it had satisfied the program's requirements.[174] It appears that many have used these disbursements to pay their debt service, in effect refunding the town for the capital it fronted for construction.[175] In some cases, a portion of the funding is being used to seed a stabilization fund to cover anticipated cyclical equipment upgrades and help protect against unforeseen or emergency costs.[176] Though the CAF II funding was not available to cover the costs of construction in real time, it nevertheless significantly decreased the long-term cost burden of network building for most of the communities.

Finally, after what was sometimes over a decade of effort, "the most anticipated news": the long night of digital disconnection was coming to a close as high-speed municipal networks began lighting up across Western Massachusetts.

Finally, after what was sometimes over a decade of effort, "the most anticipated news": the long night of digital disconnection was coming to a close as high-speed municipal networks began lighting up across Western Massachusetts.[177]

The first ember flickered in Otis in 2018, with tiny Alford following shortly thereafter. New Ashford, Plainfield, and Rowe lit up in 2019. COVID-19 slowed the pace slightly, with

Washington experiencing an eight-week delay on the eve of installations.[178] However, outdoor work continued apace and installations soon resumed, with Ashfield, Cummington, Leyden, New Salem, Washington, Wendell, and Windsor blinking on in 2020. Seven more came online in 2021: Becket, Blandford, Charlemont, Chesterfield, Colrain, Goshen, and Heath.

Small Towns and Long-Term Public-Public Partnerships

> **"We've got cell phone numbers to parties. We know who we need to call for what. That relationship is what makes it sustainable."**
>
> — ALFORD MLP MANAGER TIM ORTWEIN[179]

As the networks across Western Massachusetts neared completion, each community had another big decision on its hands: who would run them? Many of the municipal light plants were still run by volunteer boards, and some paid the MLP Manager a small yearly stipend to manage the network.[180] It was not the intent of most of these towns to take on the day-to-day management. Tim Ortwein from Alford noted very frankly that "we have a part-time office administrator, board secretary, and two and a half guys on the highway crew. Alford does not have the resources to have a dedicated, broadband team."[181]

WiredWest Reconstituted

WiredWest had supported communities as they undertook construction with advocacy and education, and now pitched the cooperative again as an option for regionalization. Six communities elected to continue this path with WiredWest, while others withdrew from the cooperative and decided to make decisions about operations on their own.[261]

It was time to find a trustworthy partner to operate the network on the day-to-day. At least one locality, Blandford, elected to contract with WG&E for ISP services before construction was even underway, but others separated their construction and operation decisions.[182] When it came time to make operational decisions, many considered a variety of options and formally solicited proposals. WG&E had been a preferred state project manager and had made clear its willingness to serve as the network operator once construction was complete, but towns were not locked in on who they could select as provider.[183]

In the end, most entrusted their networks to WG&E, forging what are so far long-lasting public-public partnerships. Just as Westfield played a critical role at a moment of uncertainty years before, it would step up again now, working with 19 towns as a trusted partner to establish a uniquely robust and successful public-public partnership. (Shutesbury was the only community for which WG&E served as construction Project Manager that opted to contract elsewhere for operation. Another municipal entity, South Hadley Electric Light Department, now operates the network for Shutesbury.[184])

Towns had a variety of reasons for pressing forward with public-public partnerships for the long-term, especially with WG&E. Many of the same factors contributed to an ease in the partnership — like experience, capacity, and shared public commitments — in the operation phase as in the building phase. WG&E was not guaranteed these contracts, but, trust had been built among many of the parties as the construction project proceeded. Broadband leaders in New Ashford summed up the thinking in a 2021 annual report: "we are aligned in our mission for success and our relationship continues to strengthen as we work together."[185]

Monthly Price for Symmetrical Gigabit Internet Service

Alford	$110
Ashfield	$65
Becket*	$84
Blandford	$85
Charlemont	$80
Chesterfield	$75
Colrain	$84
Cummington	$85
Goshen	$85
Heath*	$75
Leyden	$85
New Ashford	$85
New Salem*	$75
Otis	$70
Plainfield	$85
Rowe*	$75
Washington*	$75
Wendell	$89
Windsor*	$75

Prices last checked in Oct. 2025.

*Towns also offer 25/3 Mbps tier for $59 or $68.

Tim Ortwein in Alford is convinced that partnering with a public entity has made the project much smoother than had they gone with another operator. "Even still to this day, we encounter problems with the private partnerships," not least because it is difficult to get the bureaucracy of a corporate giant to be responsive to a small community in Massachusetts, population 500. On the other hand, public entities "understand the nuances and the regulations under Massachusetts law" — for instance around town notices and meetings.[186]

WG&E's experience and capacity operating state-of-the-art fiber networks was also important. "They had already stood up customer service, they had already stood up tech support," Drawe noted. Why reinvent the wheel on a much smaller scale if Westfield had already invested $3 million in a billing system, already hired and trained customer service representatives, already had the bucket trucks and the field techs?[187] "We had that space and that capacity" to take on these partnerships, WG&E Manager Flaherty said.[188]

For Westfield, the partnership's benefits are pretty straightforward. "We can actually develop our business," Flaherty noted. WG&E can leverage its expertise, its existing technology and staffing, and develop new revenue sources without taking on the risk of new capital investments. Altogether Whip City Fiber estimates that they serve around 8,000 subscribers across the 19 partner towns in Western Massachusetts.[189]

Westfield charges a flat fee of between $26 and $29 per subscriber to serve as provider. In return, it operates and monitors the network, diagnoses outages, fields customer service calls, bills subscribers, and markets the service. Each community pays for its own backhaul and contracts with WG&E on an additional cost-plus basis for maintenance and repairs.[190] If one of the fiber lines is hit in a storm, "I would be calling Whip City to have them come out with a cherry picker and take care of it," says Health MLP Manager Bailey Cole.[191] Though each town owns their own network, Whip City owns the in-home router, which gives staff greater visibility into network problems than they would have otherwise and substantially cuts down on troubleshooting costs.

Individual communities retain ultimate responsibility for the health of the network, of course, but capacity-strapped communities are shouldering far less of the daily workload. MLP boards

and managers oversee the generator backups at the huts, which can be critical in areas prone to weather related power outages. Earlier this year, for instance, the Heath network operated on generator power for four days before the grid was back up and running.[192] They safeguard the physical integrity of the network by ensuring tree maintenance is done promptly and properly. Many perform yearly rideouts, driving the full distance of the network to get eyes on every strand and guarantee the integrity of the network.[193] In some cases, the responsibilities of a MLP manager might add up to 5-7 hours a week.[194]

Each town is also responsible for setting its own policies related to pricing, installation costs, seasonal service, and shut off for nonpayment — the "executive decisions" of the network.[195] Whip City Fiber executes those policies, but they remain entirely in the hands of local residents. As evidence of this control, WiredWest member towns elected to offer subscribers two plan options because they felt that a lower-cost option would be welcome in their communities. In contrast, every other town offers only one package. Whip City operates a sort of network of networks, but each town retains final responsibility for how their community is served.

Local broadband staff are critical liaisons between Whip City and community leaders — they "maintain all the communication lines with everybody," Cole said.[196] Whip City holds monthly partner calls with the hilltowns, and many MLP managers remain in close contact with Whip City staff. They can then relay major milestones or decisions to Municipal Light Boards to make sure local leaders "are able to have their voice."[197]

As noted above, most of the original members of WiredWest eventually elected to move forward alone (with some only withdrawing in 2020 as operations decisions were made), but six decided to remain members of the cooperative: Becket, Heath, New Salem, Rowe, Washington, and Windsor. While WG&E currently manages the daily operation of these networks, WiredWest members have an additional layer of support.

WiredWest member towns see value in the sharing of resources, of risk — and of information.

Each community's MLP manager still performs some of the maintenance and monitoring functions of their own network, but WiredWest takes on some of the financial management responsibilities and manages the relationship with Whip City. WiredWest collects the customer payments for all member networks, and pays all costs, including the fee paid to Whip City. The set-up allows for WiredWest to help "protect each of our members from extraordinary expenses because we have the ability to spread the cost across six towns," according to Drawe.[198] Insurance, accounting, contract negotiations, legal services, auditing, and marketing are all services that WiredWest provides to its members.

WiredWest towns see value in the sharing of resources, of risk — and of information. "Discussing issues with the group prior to going to Whip City has been helpful," Heath MLP Manager Cole said.[199] "I don't have to just sit here and think, 'I wonder if I should even ask this,' and really just talking with them and figuring things out as a group" allows the communities to understand and advocate for their interests better. "Our voices are louder," he asserts. As

one of the first of the new guard MLP Managers (Cole took over at the retirement of the long-serving MLP Manager Sheila Litchfield), Cole benefited considerably from having consistent access to collected knowledge.[200] When the WiredWest contracts were up for renewal in 2024, Becket's representative told the Select Board that he felt that being a part of the cooperative was a "good value," not least because of the knowledge and resources that Jim Drawe and other MLP managers brought to the table.[201]

Many of the other communities likewise maintain some level of collaboration, particularly with neighboring communities. At Whip City's suggestion, New Ashford and Alford decided to share the cost of a back-up modem for network resilience.[202] At least two consortiums of neighboring towns have built interconnections in order to ensure resiliency and create cost-savings.[203] "Now we have a regional network that is much more resilient and much cheaper," Kulp said. A new iteration of the original WiredWest theme.

In some cases, the layout of the power grid makes it more reasonable for one locality to reach a small number of another's residents. The towns have worked out agreements that provide for such circumstances, bound together by a shared commitment to ensure that every resident of the area is properly served.

> *"It's that kind of inter-town communication and cooperation that makes this a feasible project."*
>
> — ALFORD MLP MANAGER TIM ORTWEIN

Many credit WG&E's commitment to communication for the partnerships' success. Heath MLP Manager Cole noted that they keep the partner towns in the loop on everything from network health, maintenance, and resiliency planning.[204] Even, or perhaps especially, as the first of the second generation of MLP managers, good communication has stood out to him as the single most important trait to find in a partner. "If I was a small town [getting into a partnership], I would want a real strong point of contact with that provider and making sure that there is just good amicable communication constantly going on. Just being allowed to be heard," he said.[205]

Rather than face a constant revolving door of anonymous voices and email addresses, many MLP managers feel that they are able to develop meaningful, reliable, and consistent relationships with Whip City. After an outage in June, "within five minutes" Ortwein was "on the phone with the director" at Whip City. The outage was resolved in a few hours.

Individual subscribers also feel that sense of familiarity and community. Ortwein notes that "the people who handle the billing, they have a name. When [residents] call up tech support, they get one of three people. When they call up billing, they get one of two people. They know who they're talking to." He told the story of one subscriber who was having trouble with the bill platform. "He always talked to Leanne. He didn't have to call up there and explain the whole situation again. It was, 'Hey, it's Leanne, I'll take care of it.'"[206]

Kulp says that, even among residents that don't care that WG&E is a public entity, they

appreciate "the fact that it is a local company and we're not dealing with a big telecom." But perhaps even more than that, "you can call [them] and always just get a human who actually works in the office."[207] For Kulp, WG&E's commitment to investing in customer service has marked them as a good partner, and helped them earn the trust of community members. Residents in Charlemont, in Becket, in Otis are served by the same people and in the same way as residents in Westfield itself — like people, like neighbors, like a community.

Residents in Charlemont, in Becket, in Otis are served by the same people and in the same way as residents of Westfield itself — like people, like neighbors, like a community.

On the other hand, it is important to acknowledge the limits and tensions that might accompany any partnership. Jim Drawe is less effusive about the special nature of a public-public partnership, preferring instead to view the relationship in a more transactional manner. "Give me somebody that knows what they're doing and can do it well at a decent price," Drawe said.[208] For all the shared values that might exist, it is the contract that most matters to Drawe. For now, WG&E fits that bill.

Over the last few years, as many operating contracts came up for renewal, WG&E sought to move partners to a 10-year contract to better allow for budgeting and planning. In exchange, WG&E would charge a discounted rate per subscriber. Most agreed to the extended contract, some as early as 2022, but others resisted committing to such a lengthy term.[209] A few expressed discomfort with making such a significant financial commitment to any outside party, while others emphasized upcoming leadership transitions. For whatever the town's reason, WG&E has been willing to strike a variety of agreements with partners, a flexibility that has helped continue to facilitate productive partnerships. Nevertheless, this push for longer-term contracts speaks to the ways that each party in the public-public partnership must balance competing priorities of long-range planning, sustainability, and independence.

The View On the Other Side

Jean Atwater-Williams and Tim Newman now live in towns served primarily by one of the big cable providers. In Sandisfield, the situation is "exactly what we cautioned and predicted," said Atwater-Williams. Instead of "fair prices for excellent Internet," Sandisfield has no control. Cable and Internet costs for residents have nearly doubled since the network was fully connected three years ago.[262] Newman noted that, purely on the level of Internet access, he felt his service was "adequate," though he too complained about rising costs after the introductory rate. He also shared ongoing reservations about the model itself — the money generated by the network does not stay local, and is instead appropriated by a company that is not invested in the wellbeing of the community. This, he said, "is not a partnership." The taxpayers of New Marlborough, on the hook for $720,000 plus interest over 15 years, are paying "this huge corporation money for the privilege of taking our money."[263]

Atwater-Williams and Newman were among WiredWest's strongest advocates in their communities. Both said that the vast majority of residents of their towns were "highly supportive" of the project and frustrated with decisions made by town leadership, though for many residents the sting of the failure has likely faded.[264] For Atwater-Williams, Newman, and others in their position, however, they remain deeply cognizant of the opportunity that was lost. "[WiredWest] would have been a triumph," Atwater-Williams said.[265]

Reaping the Benefits of Broadband

"It's been one of the best things that's ever happened."

— OTIS RESIDENT LARRY GOULD[210]

With about four years of service under the Ashfield MLP's belt, David Kulp calls the project — and the years of commitment, unpaid labor, and the enormous financial risk the town took on — "a roaring success." He has not "even heard of an inkling of anyone regretting it."[211] It's a sentiment that is shared across the broadband-rich hilltowns of Western Massachusetts.

The exceptionally high take rates in each community are a testament to that success. When planning for the networks, local champions estimated the percentage of households they would need to sign up (called the take rate) to make the network sustainable. Ashfield, for instance, estimated that the network could be sustainable with a 40-45 percent take rate, while Washington said its network could sustain on a 55 percent take rate.[212] Instead, every locality vaulted past a 70 percent take rate almost immediately.[213] Now, several years later, WG&E says that towns approach a take rate as high as 90 percent, remarkable in a region with high numbers of seasonal residents.[214]

The high take rates, affordable contracts with Whip City, and strategic decisions have led to healthy financial success for the networks.

The high take rates, affordable contracts with Whip City, and strategic decisions have led to healthy financial success for the networks as well. In Heath, the income from the network and the CAF II funding are helping to pay the debt service and paying all maintenance costs of the network, as well as contributing to the WiredWest contingency planning.[215] In Blandford, by 2024 earnings from broadband were not only paying the principal and interest on the town's debt and covering operational costs, but the network was even reimbursing the town general fund for earlier debt service.[216] Charlemont's network was "in the black" within the first year of operation, with subscriber fees paying for all operation costs. Beginning the following year, local leaders projected that the network would generate enough revenues "to cover the debt payments one year in advance."[217] Likewise, Wendell's network revenue was paying for the expenses, debt service, and a depreciation fund by 2023, and the MLP was making plans to establish a stabilization fund.[218]

The networks' financial success means that broadband is paying back communities more quickly than anyone anticipated. Ashfield paid off its borrowing this fiscal year using network income, less than five years after launch.[219] At the same time, MLPs are earmarking some of the network income for stabilization or contingency funds to ensure they have the resources to maintain and upgrade their networks as needed.[220]

Some networks are even leveraging this windfall to lower costs for subscribers. Ashfield decided to lower its rates by $20 a month after the debt was satisfied. Alford too plans to lower its rates next year as its debt is retired. Wendell lowered its fee in 2022, and New Salem

and Chesterfield a few years later.[221] Speaking about these decisions, WG&E GM Flaherty said "they're definitely community-minded, and they're like, this is the community's money."[222]

Opposition to Public Broadband

Opponents of municipal broadband used WG&E's decision to increase its contributions as a pretext to criticize its work with surrounding towns. Mass Priorities, a dark money group that had previously been involved in an anti-community broadband campaign on the Cape, launched a series of television and billboard ads targeting the public-public partnership model.[266] "It really should give municipalities pause to partner with Whip City Fiber," the organization's director said, claiming that subscribers in neighboring communities were funding "pet projects that benefit only the few at the expense of the many."[267] The incumbent cable companies and groups like Mass Priorities obviously see the public-public partnership model being pioneered in Western Massachusetts as a threat to telecom monopolies.

The partnership has been financially productive for Whip City Fiber as well. Income from operating these networks was not anticipated in the original business plan. The injection of nearly 8,000 new customers helps its own financial security, while keeping operating costs for the partner networks low. Buoyed by this unexpected income, WG&E has recently increased its financial commitments to the city. WG&E has always supported community institutions and non-profits as well as made "payments in lieu of taxes" (PILOT) to the municipality. In 2024, WG&E offered to increase its PILOT to support the costs of a new high school sports complex.[223] For WG&E, the project was in line with the company's long-standing self-image and reputation as a driver of community development. The project broke ground in late May.[224]

Two circumstances help explain the exceptionally high take rates in these towns. For one, these were previously unserved communities. Were residents really going to stick with spotty and slow satellite or patchy DSL over high-speed fiber Internet access? Secondly, the years of community organizing, and the necessity of bringing these plans through multiple rounds of town-wide votes, had inculcated a "hunger for Internet" that drove subscriptions.[225]

Another factor was a decision made by nearly every community to heavily subsidize what are called "drop costs" for subscribers. Towns were already stitching together funding from grants, free cash, and debt to pay for the construction of what is called the distribution network — the fiber that ran throughout the area and past every serviceable building. But it is relatively common for fiber networks to charge residents for at least a portion of the costs to bring the fiber to the home itself, which can range from several hundred to thousands of dollars.

Fearing that high out-of-pocket costs would deter sign-ups, local leaders decided that subsidizing these costs for residents would be strategically critical. Kulp said that Ashfield's decision to subsidize the drop costs "was a very, very important part of the formula that allowed us to" reach Ashfield's impressive take rate, but that "it was also a point of contention."[226]

There were two interrelated questions for decision makers: at what rate would they subsidize and how would they pay for those costs. On the second question, the state stepped in again with assistance, offering a reimbursement of several hundred dollars per drop for up to 70 percent of the households in each town.[227] From there, towns often drew from COVID-19 stimulus funds or free cash to enhance that dollar amount.[228]

In setting the subsidy rate, it was a matter for most leaders of finding "what seemed to be a good balance point" that would meet the needs of most residents but recognize that "we just didn't have endlessly deep pockets to subsidize everybody."[229] Working with Whip City, local officials ran models that sought to find the particular dollar amount responsive to both concerns. Ashfield settled on a $3,000 maximum subsidy, which would make installation entirely free for an estimated 95 percent of residents but wouldn't leave the community on the hook for miles-long driveways.[230] Many seemed to seek out a comparable coverage percentage but, because of unique circumstances, set subsidy rates a little above or below that number. A handful, including Plainfield and New Ashford, committed to meeting all costs of the drop, provided the property owner signed up in the initial period.[231]

Most communities also made the decision to sunset that drop cost subsidy, or at least substantially reduce it after a certain period of time. This decision helped drive early sign-ups for service but, according to Kulp, has led to some criticism, as it left newcomers and late-adopters on the hook for much higher costs.[232]

Some also experimented with more creative outreach efforts to drive sign-ups. While Alford residents were waiting for home installations to begin, the MLP set up a demonstration of the network at the fire house so people could experience the connection's speed and reliability. "I've seen a bunch of people there downloading software rather than waiting at home," the MLP Chairman said.[233] Hoping to dispel confusion or fear about digital tools, Chesterfield broadband champions published articles in the town newsletter explaining digital skills like how to use video conferencing. "Remember that you have friends and family eager to help you get started," the article said, "Maybe you will even do that over a video conference call!"[234]

Besides financial sustainability and subscriber enthusiasm, the success of the projects can be measured by the benefits they have brought to communities. Unlike many of the newer community Internet access initiatives that are, in effect, artifacts of the COVID-19 pandemic, municipal broadband in Western Massachusetts is a product of longer-term recognition of the digital divide. Not all of the networks were completed before the pandemic struck, but local broadband champions had long sought to put fast, reliable, and affordable broadband front and center in conversations about the health of their communities. For anyone still on the fence about the wisdom of this project, COVID-19 made it abundantly clear that "they would have never been able to have participated in public life like the rest of the country could have without this broadband."[235] COVID-19 was rather proof of concept than first flash of insight.

Access to broadband meant that both individual residents and communities as a whole could still hope to prosper in the midst of an unprecedented crisis. Ortwein remembered that "for the longest time, people would not go to Alford because [...] there was no connectivity. It felt

"Long Drop" Costs and Rural Internet Networks

Network builders and operators in rural areas often have to weigh how to address the costs of "long drops," or connections to homes that span considerable distances. For individual residents, these costs might prevent them from subscribing to Internet service, harming the network in the long term. **In Vermont**, many of the community-run networks building fiber throughout the state cover installation for long drops up to 2000 feet. To help the networks mitigate those costs, the state has also created a grant program for providers called the Affordable Long Drop Program.[268]

really distant from the world in that way."[236] But, far from being abandoned, with its newfound connectivity, Alford saw a surge in primary residency during the pandemic.[237]

Many local leaders also highlight broadband's effect on real estate in their communities. "Houses which used to stay on the market for a year are selling on average in 14 days," one local realtor told the *Berkshire Eagle*.[238] Professionals from New York City began moving full-time into the small towns of Western Massachusetts; so too did families with children that simply didn't consider a place like Becket or Cummington before. Heath's new MLP manager himself moved into the community only three years ago. He says he wasn't drawn to Heath for the connectivity, but that it would have been a dealbreaker without it. "The Internet really saved these towns from extinction," Drawe said.[239]

"Real estate agents were finally happy."

— WIREDWEST EXECUTIVE DIRECTOR JIM DRAWE

Businesses have since hailed the benefits of broadband in their communities. In Colrain, the owner of Pine Hill Orchards celebrated its newfound ability to handle credit card and EBT payments. "It's just changed the whole way that everyone lives and does business and it's so much cheaper," Colrain's broadband manager, Mike Slowinski, told the *Boston Globe*.[240] When reflecting on the impact of this project as a relatively new resident, Cole from Heath focused on the quality of life improvements connectivity brings, citing its benefits to emergency services, employment, education, and general welfare.[241]

The success of these municipal projects continue to reverberate in unexpected ways. Others in the region have seen the success of Westfield and the hilltowns, and have begun considering ways they might build and operate broadband networks with WG&E. The biggest of these communities is West Springfield, a city with nearly 30,000. Initial interest in West Springfield in 2019 was further accelerated by the imposition of data caps by Comcast in 2020.[242] In 2021, the city voted to establish a municipal light plant and authorized the launch of a $2.5 million pilot program in four neighborhoods.[243] A 2022 city-wide vote resulted in 77 percent support for the program. A unanimous city council overcame industry opposition to authorize a further $11 million borrowing to expand the network in 2024.[244] Subscribers in West Springfield are already being served.

West Springfield may just be the first in a new crop of municipalities leveraging public-public partnerships to bring broadband to Western Massachusetts. Residents of East Longmeadow are also looking at the opportunity to provide broadband service to their community.[245] In both of these communities, the service will be a competitor to an existing cable provider that residents feel is not meeting their needs and expectations. Take rates will likely lag those of the communities explored here, but they've found inspiration enough in the ways that these small towns have resisted the power of massive telecom monopolies and delivered better, cheaper, and more reliable service to their communities through public-public partnerships.

Antagonists of community broadband have also made note of the hilltowns' success. Even as newcomers have taken up the mantle of community broadband, efforts have faced stiff resistance in the form of astroturf campaigns aimed at tearing down public broadband options. In Southwick, Flaherty said, the Select Board "was very excited about moving forward with a

plan" involving Whip City. When they called for a vote on authorizing the necessary borrowing — in this case $15 million — Mass Priorities, the anti-municipal broadband group, blanketed the community with flyers and door-knockers, pushing claims about rising taxes and limited services.[246] It wasn't the first time this group had targeted WG&E.[247] Flaherty noted that enthusiasm had been so high that many supporters didn't think they needed to attend, and the measure failed by 12 votes (a two-thirds majority was required).[248] A similar situation unfolded in Hamden, where the measure failed by two votes.[249] While West Springfield successfully repelled a similar approach from Mass Priorities, residents of Hampton and Southwick now face an uphill battle in getting the broadband their communities deserve.

Lessons Learned

The municipal broadband networks in Western Massachusetts are both products and drivers of community pride, engagement, and commitment. The entire first page in Goshen's 2022 Annual Report was dedicated to the success of the broadband project and was titled simply, "Thank you for your hard work and dedication."[250]

> *"There is a lot of pride and satisfaction that we were able to build it ourselves, and that it's run by a local entity."*
>
> — ASHFIELD MLP MANAGER DAVID KULP

These are networks built by and for the communities themselves, and they remain accountable to those communities. According to Ortwein, "the thing that is really attractive about something like this being a town-owned service is that we're [...] responsible to the townspeople."[251] That sense of responsibility undergirded a community organizing and advocacy effort that spanned three decades. And it is lived out, now, in the quotidian decisions and functions of any municipal project. Public-public partnerships, in which the transactional nature of contracts is laced through with a shared sense of community and purpose, have been critical to these towns' ability to meet those responsibilities.

These are the biggest lessons we take away from the Western Massachusetts story.

Unique circumstances in town governance helped drive success. Though an absence of these factors hardly dooms an effort to fail, we would be remiss not to address the unique conditions and community traditions that helped buttress organizing and advocacy here.

- **Annual Town Meeting/Direct Democracy:** This factor proved to be both a challenge and an asset for community broadband champions. Towns in Massachusetts are required to conduct major business through a process called Town Meeting, whereby an open gathering of registered voters acts as the Town's legislative body and approves

spending and other important decisions. Direct democracy is not easy. Corralling the votes of hundreds of residents took enormous effort, as did convincing them to raise their own taxes. But it meant that broadband advocates won essential community buy-in every step of the way.

- **Geography:** In Massachusetts, there are no unincorporated areas; every area in the state is divided among its towns and cities. As a result, towns play an outsized role in regional development. The communities under study here were committed to serving every household in their area. There would be no patchwork development, and no household in Alford, or Ashfield, or Heath would be left behind.

Political and financial opportunities shaped by state actions. For many of the broadband advocates in Western Massachusetts, the state was a fickle but crucial partner. At times, state officials appear as obstructive characters, too skeptical of local community power. Yet later state financial support of these projects proved critical. States should recognize the relatively inexpensive ways they can help small, sometimes under-resourced areas transform their digital futures and trust that bigger is rarely better.

- **State Grants:** Though a smaller number than what some advocates hoped for or anticipated, Massachusetts ultimately offered nearly $30 million in financial support for these small-town broadband projects. In some cases, municipal broadband may have been attainable even without that support (as shown by the Leverett case), but the funding helped make capital-intensive development possible in some very small communities.

- **State House Note Program:** State mechanisms for low-cost borrowing proved especially important for the small municipalities that would have struggled to participate in the municipal bond market. State-facilitated lending programs like this (as well as other mechanisms like **State bond banks**) can help smooth the way for low-cost, short- and medium-term municipal borrowing essential for building for the future.

For these towns, success depended on working together, but remaining adaptable. For many years, and even now in different ways, this was a story fundamentally about cooperation and collective action. Local leaders and broadband champions found allies in one another, sharing knowledge, building relationships, and dreaming of a structural solution to their regions' long-term digital neglect. They built community power through those efforts. When political pressure came to bear on the collective, some fell away, but many others stayed the course, even if it meant pivoting to a modified version of that shared dream. Still, "independence" did not mean a total loss of shared values, resources, and commitments — demonstrated in the continued life of WiredWest and the more informal cooperation we see among these communities to this day.

Self-reliance is sometimes the only way. Around 2010, widespread frustration with monopoly Internet service providers spurred the massive wave of broadband organizing that swept across nearly four dozen communities in the region. For years after, many broadband

advocates fruitlessly sought partnerships with large, for-profit ISPs. Again and again, they were turned away. From the vantage point of the present, a few of the battle-hardened broadband champions might see this as a blessing in disguise. It was a bitter pill to swallow, but it hardened the resolve and clarified the thinking of many local leaders: no one cares about saving you as much as you.

Volunteers can make a difference. Years of volunteer effort and thousands of hours went into the municipal broadband successes outlined here — effort with a very uncertain payoff on a very long time-horizon. That effort had to be offered again and again in the face of changing circumstances and unexpected challenges. Some of these volunteers were elected town leaders as well, but many others were just neighbors who cared. Some felt the crush of disappointment, but many others succeeded in doing something that most would have found unthinkable only a few years before.

It takes sacrifice for small towns to build big things. Many towns who were initially interested eventually fell away from the project, fearful of borrowing or taking on responsibility and lured away by the promise of getting something for nothing. But the communities discussed in this report persevered. They scraped together financing; they asked people to show up on the weekend to dig trenches; they volunteered to raise their taxes. One hopes that other communities might have an easier journey, but there is value in reflecting on their conclusion. Something worth something might cost something.

Know your own market. It is illustrative to consider the different measures of take rate success in Westfield itself and some of these small hilltowns. WG&E went into broadband development anticipating a take rate of between 50-60 percent in Westfield, knowing that there was a competitor in the market. However, it was reasonable for the take rates in these small communities to far exceed those numbers despite the concerns of the state's consultants, especially after years of community organizing and educational campaigns and with no competition. It is also worth noting that there were strategic decisions that helped drive success, especially finding ways to subsidize the costs of initial installation for many residents.

Partnerships built on shared values can facilitate municipal broadband success, even in very small towns. The communities studied here brought an enormous amount to the table, drawing from a cross-section of townspeople with varied skills and experiences. But most were frank in that they did not have the capacity or expertise to run a broadband network, nor did they have the potential subscriber base to justify setting up a full network operations center or hiring an entire customer service team. To be financially feasible, these networks needed to remain lean while meeting residents' expectations for service and responsiveness.

As project manager and now network operator, WG&E has played a truly vital role in making these networks possible. No partnership is without its challenges, and the networks pay for WG&E's services, but it is nevertheless worth highlighting the special value of these partnerships. In reflecting on the success of this model, local leaders cite robust

communication, local knowledge and commitment, and a fundamentally shared system of values. WG&E charges a reasonable rate and is highly responsive. And on a very critical level, WG&E recognizes and respects that these networks were built by these towns for these towns — a recognition reflected in its daily interactions with local leaders and in its policies administering the networks as each community sees fit.

Internet access in this country is better than it has ever been, but hundreds of communities continue to struggle with low-quality, expensive broadband. Beholden to the demands of shareholders, the largest Internet Service Providers raise prices annually and have long neglected rural and low-income areas. The federal $42.5 billion Broadband Equity Access and Deployment (BEAD) program was expected to bring high-quality Internet access to everyone, but deeply flawed maps have left countless communities excluded from that funding and recent changes to the program promise to strand many households with slower, less reliable technologies.

But we need not wait for large ISPs or the federal government to solve our connectivity crisis. The networks in these small Massachusetts towns are just a handful of the more than 400 municipal networks providing service to more than 800 municipalities across the country. Local solutions like these remain necessary, and can offer a model for states and local advocates looking to truly close the digital divide in their communities.

Over the last two decades, residents in these rural communities committed to themselves and their neighbors, found a trusted partner, and built the Internet access of their dreams. Now they determine their own digital futures. ■

Endnotes

1. "Western Massachusetts Highlights," Visit the USA, accessed September 5, 2025, https://www.visittheusa.com/experience/western-massachusetts-highlights-family-fun-stunning-landscapes-and-beyond; Dave Christopolis, "Rural Seniors Must Not Be Left Out," *Daily Hampshire Gazette*, July 4, 2025, https://gazettenet.com/2025/07/04/guest-column-62150183/.
2. "Hilltown Directory," Hilltown Community Development Corporation, accessed September 5, 2025, https://hilltowndirectory.com.
3. David Kulp, personal interview, June 2025.
4. Tim Ortwein, personal interview, June 2025.
5. Ibid.
6. Ibid.
7. Ashfield Municipal Light Plant, "Meeting Minutes," February 16, 2012, https://ashfield.org/DocumentCenter/View/1426/AMLP-Regular-Meeting-20120216-Minutes?bidId=.
8. "Early History," Alford Municipal Light Plant, accessed May 2025, https://www.alfordmamlp.com/what-is-an-mlp. Town of Heath, Massachusetts, "Annual Report," 2021, https://townofheath.org/news/newsfile_9143_2021HeathAnnualReport-web.pdf.
9. Tammy Daniels, "Governor, State Officials Mark 'Last Mile' Connections in Becket," *iBerskhires.com*, August 31, 2021, https://www.iberkshires.com/story/65831/Governor-State-Officials-Mark-Last-Mile-Connections-in-Becket.html?source=most_read.
10. Kulp, interview.
11. Mitchell Lash Adams, "Massachusetts Technology Park Broadband Infrastructure Application," March 25, 2010, 9, https://www2.ntia.doc.gov/files/grantees/massachusettstechnology_infrastructure_application_part1_redacted.pdf. See also "MassBroadband 123 Network Construction," Massachusetts Broadband Institute, https://broadband.masstech.org/about-mbi/past-programs-legislation/massbroadband-123-network-construction.
12. Chapter 231 of the Acts of 2008, Commonwealth of Massachusetts (2008), https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter231
13. David Dvore, "My Turn/Dvvore: Where is the Broadband?," *Greenfield Recorder,* January 23, 2017, https://recorder.com/2017/01/23/my-turn-dvore-broadband-7552368/; Jim Drawe, personal interview, June 2025.
14. Drawe, interview.
15. Tim Newman, personal interview, October 2025.
16. Goshen's first broadband committee likewise dates to around that time. "AflordLink Commission," Town of Alford, accessed June 2025, https://www.townofalford.org/home/alfordlink-commission; "Plainfield Broadband MLP: Project History & Overivew," Town of Plainfield, accessed June 2025, https://www.plainfield-ma.us/plainfield-broadband-mlp/page/project-history-overview; Town of Goshen, Massachusetts, "Annual Town Report," 2022, https://storage.googleapis.com/proudcity/goshenma/uploads/2023/05/Annual-Town-Report-2022.pdf.
17. Newman, interview.
18. Kulp, interview.
19. Numerous others were highly involved and held leadership positions in WiredWest, from a variety of the member towns. Drawe and Kulp are singled out here only because they were interviewed for and feature heavily in this report.
20. Drawe, interview.
21. Mass. Gen. Laws ch. 164, https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter164.
22. Mass. Gen. Laws ch. 164 § 47E, https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter164/Section47E.
23. One report counted ten MLPs offering some sort of Internet connectivity in 2015, though several did not yet offer residential service. Some of the earlier offerings came through a cable plant or a hybrid fiber-coax system - including Shrewsbury (1983 for cable and 1999 for Internet), Russell (1988), Braintree (2001), Norwood (2002), and Taunton (1997). By 2015, others had built out municipal systems and/or offered services to businesses, like Concord, Chicopee, Holyoke, Westfield and South Hadley. David Talbot, Waide Warner, Carolyn Anderson, Kira Hessekiel, and Daniel Dennis Jones, "Holyoke: A Massachusetts Municipal Light Plant Seizes Internet Access Business Opportunities," Berkman Center for Internet & Society, July 2015, https://cyber.harvard.edu/publications/2015/municipal_fiber. For details on individual MLPs, see "History," Taunton Municipal Light Plant," accessed July 2025, https://www.tmlp.com/191/History; Katie Kienbaum, "After Years of Consideration, South Hadley Electric Department Moves Forward with FTTH Network," Community Networks, a project of Institute for Local Self-Reliance, November 21, 2018, https://communitynetworks.org/content/after-years-consideration-south-hadley-electric-department-moves-forward-ftth-network; David Talbot, Waide Warner, Susan Crawford, and Jacob White, "Citizens Take Charge: Concord,

Massachusetts, Builds a Fiber Network," Berkman Klein Center for Internet & Society, February 201, 7, https://cyber.harvard.edu/publications/2017/MF/Concord; "SELCO HIstory: The First Hunded Years," Shrewsbury Electric & Cable Operations, 2008, https://45971892-f07e-4880-bdd9-93c0a3b608e7.filesusr.com/ugd/5d892c_cfb975f173a14f22992e0591857644bf.pdf; Mike Farrell, "Comcast Buys Two Massachusetts Municipal Broadband Systems," *Multichannel News*, December 2, 2021, https://www.nexttv.com/news/comcast-buys-two-massachusetts-municipal-broadband-systems; Tom Asp, Cynthia Studner, and Eric Wirth, "Broadband Upgrade Study for Norwood Light & Broadband (Norwood Light)," Power System Engineering, Inc., January 2022, https://norwoodlight.com/wp-content/uploads/PDFDirectory/NorwoodBroadbandUpgradeStudyRev12.pdf; David Talbot, Waide Warner, Carolyn Anderson, Kira Hessekiel, and Daniel Dennis Jones, "A Massachusetts Municipal Light Plant Seizes Internet Access Business Opportunities" Berkman Center for Internet & Society, July 2015, https://cyber.harvard.edu/sites/cyber.harvard.edu/files/2015-07_broadbandVERTICAL_0.pdf;

24. Mass. Gen. Laws ch. 164 § 47C, https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter164/Section47C.

25. Drawe, interview.

26. Kulp, interview.

27. WiredWest, "22 Towns Have Voted So Far - Most Unanimously - To Direct Their Selectboards to Join WiredWest's Community Fiber-Optic Network," Press Release, May 10, 2010, https://wiredwest.net/2015s2/uploads/2010/07/WiredWest-press-release-May-10-2010.pdf.

28. WiredWest, "All Towns Ratify WiredWest Warrant Article and Convene for First Meeting," Press Release, June 27, 2010, https://wiredwest.net/2015s2/uploads/2010/07/WiredWest-press-release-Jun-27-2010.pdf.

29. David Talbot, Waide Warner, and Susan Crawford, "WiredWest: A Cooperative of Municipalities Forms to Build a Fiber Optic Network," Berkman Center for Internet & Society, April 2016, 7, accessed June 2025, https://communitynetworks.org/sites/default/files/2016-04-wiredwest-berkman-report.pdf.

30. Ibid.

31. Kulp, interview.

32. Ibid.

33. Talbot, Warner, and Crawford, "WiredWest," 6.

34. WiredWest, "WiredWest Celebrates Milestone and Path Forward on First Anniversary," Press Release, August 13, 2012, https://wiredwest.net/2012/08/13/wiredwest-celebrates-milestones-and-path-forward-on-first-anniversary-2/; Town of Ashfield, Massachusetts, "Annual Town Report," 2011, https://ashfield.org/DocumentCenter/View/42/Annual-Town-Report---2011-PDF.

35. Kulp, interview.

36. Newman, interview.

37. Drawe, interview.

38. Newman, interview.

39. WiredWest, "Western Mass. towns embrace fiber-optic project," June 2010, reproduced at https://www.mma.org/western-mass-towns-embrace-fiber-optic-project/.

40. Larry Parnass, "Angst Over Internet Speeds," *The Berkshire Eagle*, January 8, 2017, https://www.berkshireeagle.com/archives/angst-over-internet-speeds/article_4c661772-5e09-560b-a2ea-a71854b51dee.html.

41. Ortwein, interview.

42. Daniels, "Governor, State Officials."

43. "Our Opinion: A Crucial Step Toward Connection in Becket," *The Berkshire Eagle*, December 2, 2020, https://www.berkshireeagle.com/opinion/editorials/our-opinion-a-crucial-step-toward-connection-in-becket/article_3704b204-34e7-11eb-b9db-93dffc01b45a.html; Dick Lindsay, "Otis Special Town Meeting Voters Back Broadband Network Activation," *The Berkshire Eagle*, October 7, 2015, https://www.berkshireeagle.com/archives/otis-special-town-meeting-voters-back-broadband-network-activation/article_cee1a328-8f91-5885-a582-6d08d16fb6b3.html.

44. Lindsay, "Otis Special Town Meeting."

45. Drawe, interview.

46. In 2011, the median age of residents of WiredWest-affiliated towns was, on average, about 48 years old, 23 percent higher than the median age of residents of Massachusetts (38.9), which was higher still than the median age of all US residents (37). A similar pattern holds if one considers the portion of the population over 60 years old: 25.8 percent on average across the towns, 19.2 percent in Massachusetts, and 18.2 percent in the United States. U.S. Census Bureau, "American Community Survey, 2011 American Community Survey 5-Year Estimates, Table S0101, generated by Jessica Auer using data.census.gov, September 22, 2025.

47. Town of Becket, "Board of Selectmen's Working Meeting Minutes," May 11, 2017, https://www.townofbecket.org/sites/g/files/vyhlif4146/f/minutes/bos_051117_working_meeting.pdf

48. See letters from citizens in 2020 anticipating the arrival of broadband in Becket in "Our Opinion: A Crucial Step Toward

Connection in Becket."

49. Catherine Tumber, "Western Mass. 'Hilltowns' Look for a Foothold," *Commonwealth Beacon*, June 20, 2019, https://commonwealthbeacon.org/arts-and-culture/western-mass-hilltowns-look-for-a-foothold/.

50. Kulp, interview.

51. Ortwein, interview.

52. Kulp, interview.

53. Town of Ashfield, Massachusetts, "Annual Town Report," 2011, https://ashfield.org/DocumentCenter/View/42/Annual-Town-Report---2011-PDF?bidId=.

54. Drawe, interview.

55. Christopher Mitchell, "WiredWest Plans Muni Open Access Fiber in Western Massachusetts," Community Networks, a project of Institute for Local Self-Reliance, June 10, 2010, https://communitynetworks.org/content/wired-west-plans-muni-open-access-fiber-western-massachusetts.

56. Kulp, interview.

57. Drawe, interview.

58. Talbot, Warner, and Crawford, "WiredWest."

59. "History," Westfield Gas & Electric, accessed September 2025, https://www.wgeld.org/pages/about-wge/history/.

60. Thomas Flaherty, personal interview, July 2025.

61. Ibid.

62. Ibid.

63. Ibid.

64. Christopher Mitchell, host, Community Broadband Bits, Episode 429, "Whip City Fiber's Next Phase: Connecting Hill Towns in Western Massachusetts," September 29, 2020, 35 min., 2 sec., https://communitynetworks.org/content/whip-city-fibers-next-phase-connecting-hill-towns-western-massachusetts-community-broadband.

65. Westfield acquired the nickname Whip City in the 19th century because of its status as center of manufacturing for buggy whips.

66. Flaherty, interview.

67. "Whipping Up Better Internet in Western MA," Community Networks, a project of Institute for Local Self-Reliance, March 13, 2017, https://communitynets.org/content/whipping-better-internet-western-ma.

68. Flaehrty, interview.

69. Larry Parnass, "Towns to Massachusetts Broadband Institute: Back Regional Broadband," *The Berkshire Eagle*, February 16, 2017, https://www.berkshireeagle.com/archives/towns-to-massachusetts-broadband-institute-back-regional-broadband/article_3eb9e0f0-b9e4-5af0-a4bc-46a30d3ee503.html.

70. Jim Levulis, "Many Western Mass. Towns To Vote On Fiber-Optic Internet Expansion," *WAMC Northeast Public Radio*, May 1, 2015, https://www.wamc.org/new-england-news/2015-05-01/many-western-mass-towns-to-vote-on-fiber-optic-internet-expansion.

71. WiredWest, "Business Plan for WiredWest Municipal Lighting Plant Cooperative LLC: Working Draft," October 12, 2015, https://wiredwest.net/2015s2/wp-content/uploads/2012/10/WiredWest-BUSINESS-PLAN-WORKING-DRAFTV6-10_6.pdf.

72. WiredWest, " Board of Directors Meeting Minutes," January 10, 2015, https://wiredwest.net/2015s2/wp-content/uploads/2015/03/2015-01-10_BoDMeetingMINUTES.pdf

73. Kulp, interview.

74. Drawe, interview.

75. Larry Parnass, "Inside the Broadband Meltdown: WiredWest Retools After Losing Faceoff with MBI," *The Berkshire Eagle*, February 6, 2017, https://www.berkshireeagle.com/archives/inside-the-broadband-meltdown-wiredwest-retools-after-losing-faceoff-with-mbi/article_fb196456-1c67-5c52-a418-ccec1d823708.html.

76. In Goshen, the meeting had to be moved from the Town Hall to a nearby church to accommodate the crowd. The vote in favor of authorization was unanimous. Talbot, Warner, and Crawford, "WiredWest;" Drawe, interview; WiredWest, "Update: 22 towns authorize $34.5M for fiber. 6,700+ deposits on service," press release, July 2, 2015, https://wiredwest.net/2015/07/02/update-22-towns-authorize-34-5m-for-fiber-6700-deposits-on-service/.

77. This includes Alford ($1.6M), Lanesborough ($2.5M), Otis ($4M), and Princeton ($1.2M). See Heather Bellow, "Alford Residents Vote 133-8 for town-wide Internet service," *The Berkshire Edge*, August 11, 2015, https://theberkshireedge.com/alford-residents-vote-133-8-for-town-wide-internet-service/; Patricia LeBoeuf, "STATUS CHECK: Here's Where Berkshire County's 19 'Unserved' Internet Towns Stand," The Berkshire Eagle, February 4, 2017, https://www.berkshireeagle.com/archives/status-check-here-s-where-berkshire-county-s-19-unserved-internet-towns-stand/article_84587afe-11fe-5e9d-b0e1-680e460ff37e.html; Dick Lindsay, "Otis Special Town Meeting Voters Back Broadband Network Activation," The *Berkshire Eagle*, October

7, 2015, https://www.berkshireeagle.com/archives/otis-special-town-meeting-voters-back-broadband-network-activation/article_cee1a328-8f91-5885-a582-6d08d16fb6b3.htm; Town of Princeton, Massachusetts, "Annual Town Report, 2015," https://www.town.princeton.ma.us/sites/g/files/vyhlif4891/f/uploads/2015_report.pdf.

78. WiredWest, "Business Plan for WiredWest Municipal Lighting Plant Cooperative LLC: Working Draft."

79. Parnass, "Inside the Broadband Meltdown."

80. Jean Atwater-Williams, personal interview, September 2025.

81. Susan Crawford, an author of a Harvard Berkman Center report on the crisis, attributed the sudden shift to a change in political leadership at the state. She also quotes a 2014 MBI-WiredWest joint presentation as saying, "MBI finds the current WiredWEst proposal to be a high-quality solution," which is evidence that the events in 2015 represent a significant break. For his part, Nakajima blamed the previous administration's lack of clear process and frameworks. A state Representative said, "I think there have been too many lawyers on this." Susan Crawford, "Why Western Mass Doesn't Have the Internet," *Wired*, April 20, 2016, https://www.wired.com/2016/04/why-western-mass-doesnt-have-the-internet/; Parnass, "Inside the Broadband Meltdown;"

82. Talbot, Warner, and Crawford, "WiredWest."

83. "Shoot-Out Over the WiredWest: MBI Pulls Funding in Massachusetts Saga," Community Networks, a project of Institute for Local Self-Reliance, January 27, 2016, https://communitynetworks.org/content/shoot-out-over-wiredwest-mbi-pulls-funding-massachusetts-saga

84. Massachusetts Broadband Institute, "Last Mile Broadband Policy," July 30, 2015, https://www.tolland-ma.gov/sites/g/files/vyhlif3926/f/uploads/mass_broadband_last_mile_policy_july_30-2015.pdf. This policy was ultimately superseded by one adopted by the board in September of 2016.

85. Wipro Technologies, "WiredWest Business Model Review and Potential Options for Unserved Towns in Western Massachusetts," December 10, 2015, accessed June 2025 on https://www.scribd.com/document/293357881/WiredWest-Business-Plan-Analysis-WIPRO#scribd&content=query:take-rate,pageNum:9,indexOnPage:0,bestMatch:false.

86. CTC Technology & Energy, "High-Level Assessment of the WiredWest Financial Model," December 1, 2015, https://wiredwest.net/2015s2/wp-content/uploads/2015/12/CTC-Report-to-WiredWest-final-20151201.pdf.

87. Heather Bellow, "State threatens to withhold funds from WiredWest member towns," *The Berskhire Edge*, December 4, 2015, https://theberkshireedge.com/26002-2/.

88. Mary Serreze, "WiredWest members shut out of Mass. Broadband meeting in Greenfield," *The Republican,* December 15, 2015, https://www.masslive.com/news/2015/12/wiredwest_members_barred_from.html.

89. Parnass, "Inside the Broadband Meltdown."

90. Drawe, interview.

91. Kulp, interview.

92. Talbot, Warner, and Crawford, "WiredWest."

93. Ortwein, interview.

94. Heather Bellow, "$1.6m High-Speed Internet Proposal Attracts Crowd in Alford," *The Berkshire Edge*, August 9, 2015, https://theberkshireedge.com/1-6m-high-speed-internet-proposal-attracts-crowd-in-alford-pop-454/.

95. Diane Broncaccio, "Wendell Eyes WiredWest Alternatives," *Greenfield Recorder,* March 7, 2016, https://recorder.com/2016/03/07/news-local-wendell-eyes-alternatives-to-wiredwest/; For a sense of the debate in Leyden, see Town of Leyden, Massachusetts, "Broadband MLP Meeting Minutes," November 3, 2015, https://www.townofleyden.com/files/Broadband-MLP_2015-11-03_Minutes.pdf.

96. WiredWest, "The Case for Regionalization," May 10, 2016, https://wiredwest.net/2015s2/wp-content/uploads/2016/05/TheCaseforRegionalization.FINAL_.02MAY10.pdf; WiredWest, "Suggested Resolution on Regional Broadband," December 29, 2016, https://wiredwest.net/2016/12/29/suggested-resolution-regional-broadband/.

97. LeBoeuf, "STATUS CHECK"; Larry Parnass, "WiredWest: Build Your Networks and Let Us Take Care of the Rest," *The Berkshire Eagle*, January 28, 2017, https://www.berkshireeagle.com/archives/wiredwest-build-your-networks-and-let-us-take-care-of-the-rest/article_684876bf-792e-5381-b3d6-18a46dd2b3ee.html.

98. Parnass, "WiredWest: Build Your Networks and Let Us Take Care of the Rest."

99. LeBoeuf, "STATUS CHECK."

100. Parnass, "Towns to Massachusetts Broadband Institute: Back Regional Broadband."

101. "Advice for Towns," WiredWest, accessed July 2025, https://wiredwest.net/advice-for-towns/.

102. WiredWest, "Leverett MLP Board/MLP Manager Meeting with Members of the Shutesbury, Wendell, New Salem, and Ashfield Broadband Committees," September 27, 2016, https://wiredwest.

net/advice-for-towns/mlp-startup-operational-considerations/leveretts-answers-questions-running-mlp/.

103. Kulp, interview.

104. LeBoeuf, "STATUS CHECK."

105. Parnass, "Towns to Massachusetts Broadband Institute: Back Regional Broadband."

106. Massachusetts Broadband Institute, "Last Mile Program Policy," September 29, 2016, https://broadband.masstech.org/last-mile-programs/last-mile-program-policy.

107. Massachusetts Technology Collaborative, "Request for Proposals: For Last Mile Grants to Provide Broadband Service to Unserved Towns in Western Massachusetts," January 11, 2017, https://cam.masstech.org/sites/default/files/2022-06/2017-MBI-02-RFP-Last-Mile-Broadband-Service-Grants-2016-11-18.pdf.

108. Town of Becket, "Board of Selectmen's Working Meeting Minutes."

109. Drawe, interview.

110. Phillip Dampier, "Corruption? Massachusetts Giving Preferential Treatment, Taxpayer Dollars to Charter/Spectrum," *Stop the Cap!*, April 16, 2018, https://stopthecap.com/2018/04/16/corruption-massachusetts-giving-preferential-treatment-taxpayer-dollars-to-charter-spectrum/; Town of New Marlborough, "Joint Meeting of Selectmen and Broadband Committee Minutes," April 13, 2018, https://www.newmarlboroughma.gov/sites/g/files/vyhlif4771/f/minutes/bb_min_4.13.18.pdf; Heather Bellow, "MBI Pitches Charter Broadband to New Marlborough, With Strings Attached," *The Berskhire Eagle*, April 14, 2018, https://www.berkshireeagle.com/archives/mbi-pitches-charter-broadband-to-new-marlborough-with-strings-attached/article_990183fc-6d47-5a41-8379-dbfd133f6b48.html.

111. Bellow, "MBI Pitches Charter"; Barry R. Shapiro, "Broadband Update: Signed, Sealed, Delivered," *New Marlborough 5 Village News*, February 2019, https://static1.squarespace.com/static/642d88cca29b57368f05d451/t/643920d1f59a006134cb1610/1681468886666/02_2019.pdf. This plan was still far more advantageous than one initially selected, which would have seen Sandisfield, Tolland, Monterey, and New Marlborough pay Frontier $15.5 million in addition to MBI funding to build and own networks in their towns. Heather Bellow, "Frontier's Fiber-Optic Networks to Deliver High-Speed Internet to Monterey, New Marlborough, Sandisfield and Tolland," *The Berkshire Eagle*, March 13, 2017, https://www.berkshireeagle.com/archives/frontiers-fiber-optic-networks-to-deliver-high-speed-internet-to-monterey-new-marlborough-sandisfield-and/article_30822cef-0d36-54bd-a833-e9d15fbfd6b8.html; and "MBI: Remaining Last Mile Towns On Set Path For Broadband," *WAMC Northeast Public Radio*, December 29, 2017, https://www.wamc.org/new-england-news/2017-12-29/mbi-remaining-last-mile-towns-on-set-path-for-broadband.

112. Atwater-Williams, interview.

113. Newman, interview.

114. Massachusetts Broadband Institute, "Commonwealth of Massachusetts & Town of Worthington Select Comcast for Town's Broadband Project," Press Release, December 26, 2018, https://worthington-ma.us/2019/01/%EF%BB%BFcommonwealth-of-massachusetts-town-of-worthington-select-comcast-for-towns-broadband-project/.

115. LeBoeuf, "STATUS CHECK"; Heather Bellow, "New Marlborough Inks Network Deal with Charter, Looking to Bridge 'Digital Divide'," *The Berskhire Eagle*, January 24, 2019, https://www.berkshireeagle.com/archives/new-marlborough-inks-network-deal-with-charter-looking-to-bridge-digital-divide/article_92175135-d184-5d04-9fdb-b0ee363c259f.html; "Last Mile Programs," Massachusetts Broadband Institute, accessed September 2025, https://broadband.masstech.org/last-mile-programs.

116. Heather Bellow, "Sandisfield Resident Calls for Town To Vote on Broadband Strategy," *The Berkshire Eagle*, March 4, 2017, https://theberkshireedge.com/sandisfield-resident-calls-for-town-revote-on-broadband-strategy/.

117. LeBoeuf, "STATUS CHECK." Though one cannot make generalizations, there are at least some indications that towns have had issues with these outside providers. See discussion in Egremont about the frustration with the "lack of action" by the provider, and the acknowledgement that the provider "is not answerable to the Town." Town of Egremont, Massachusetts, "Meeting of the Select Board Minutes," February 15, 2022, https://www.egremont-ma.gov/AgendaCenter/ViewFile/Minutes/_02152022-71.

118. Ortwein, interview.

119. Kulp, interview.

120. Ibid.

121. Town of Becket, "Board of Selectmen's Working Meeting Minutes." Becket and Goshen both ultimately rejected proposals from private providers.

122. Town of Charlemont, "Broadband Committee Meeting Minutes," April 20, 2016, https://charlemont-ma.us/files/BroadbandComm_2016-04-20_minutes.pdf.

123. "Charlemont residents vote in favor of building town-owned

broadband network," *WWLP.com*, December 10, 2018, https://www.wwlp.com/news/local-news/franklin-county/charlemont-residents-vote-in-favor-of-building-town-owned-broadband-network/1651257986/; Lisa Gonzalez, "Charlemont Chooses Community-Owned Fiber Over Comcast," Community Networks, a project of Institute for Local Self-Reliance,December 13, 2018, https://ilsr.org/articles/charlemont-chooses-community-owned-fiber-over-comcast/. The pros and cons listed on the Warrant Fact sheet for the vote highlighted transparency, ubiquity, prices, and the fact that it would be "town owned and controlled" as elements in favor of the municipal plan. Town of Charlemont, "Warrant Article Fact Sheet," December 6, 2018, accessed on https://communitynetworks.org/sites/www.muninetworks.org/files/2018-12-06%20Comcast:Muni%20information_meeting_-_one_pager_-_final.pdf.

124. Kulp, interview.

125. Drawe, interview.

126. Town of Plainfield, Massachusetts, "Annual Town Report," 2016, https://www.plainfield-ma.us/media/2691.

127. Town of Plainfield, Massachusetts, "Annual Town Report," 2017, https://www.plainfield-ma.us/media/2681.

128. Mary C. Serreze, "Six Massachusetts Towns Win Broadband Infrastructure Grants to Build Fiber Optic Networks," *The Republican*, May 9, 2017, https://www.masslive.com/news/2017/05/ashfield_shutesbury_among_town.html.; Mary C. Serreze, "Seven More Rural Hilltowns Win State Broadband Grants," *The Republican,* May 24, 2017; Mary C. Serreze, "Chesterfield Among Four Latest Hilltowns to Recieve State Broadband Grants," *The Republican*, June 26, 2017, https://www.masslive.com/news/2017/06/chesterfield_among_four_hillto.html; Domenic Poli, "Wendell Getting $730K for Broadand," *Greenfield Recorder*, June 27, 2017, https://recorder.com/2017/06/27/wendell-getting-730k-for-broadband-10966709/; Hope Tremblay, "Blandford Gets $1 Million State Grant to Build Broadband Network with Westfield Gas & Electric," *The Republican*, December 29, 2017, https://www.masslive.com/news/2017/12/with_1_million_grant_blandford.html.

129. Serreze, "Six Massachusetts Towns Win Broadband Infrastructure Grants."

130. Drawe, interview.

131. Flaherty, interview.

132. Drawe, interview.

133. Westfield Gas & Electric, "Response to Information Requests Issued by the Department of Telecommunications and Cable in Docket D.T.C. 19-1," January 2019, accessed on https://www.mass.gov/doc/dtc-19-1-wgeld-responses-to-dtc-irs-1-1-1-15/download; Amy Porter, "Blandford Takes Another Step Towards Broadband," *The Westfield News*, July 25, 2017, https://thewestfieldnews.com/blandford-takes-another-step-towards-broadband/. Mount Washington and Warwick both built town-owned networks. Massachusetts Broadband Institute, "MBI Approves $1.9 Million in Last Mile Grants to Support Broadband Expansion in Alford, Otis, Warwick," press release, December 6, 2016, https://broadband.masstech.org/news/mbi-approves-19-million-last-mile-grants-support-broadband-expansion-alford-otis-warwick; Jim Levulis, "Mount Washington is Latest Town to Seek Own Internet Network," *WAMC Northeast Public Radio*, January 18, 2016, https://www.wamc.org/new-england-news/2016-01-18/mount-washington-is-latest-town-to-seek-own-internet-network.

134. Kulp, interview.

135. Drawe, interview.

136. Kulp, interview.

137. Town of Plainfield, Massachusetts, "2020 Annual Report from Plainfield Light and Telecommunications Department," 2020, https://www.plainfield-ma.us/media/2881.

138. Ortwein, interview.

139. For an overview of the pole-attachment process and challenges there, see Jake Varn and Sarah Ali, "Broadband Expansion May Hinge on States' Processes for Attaching Lines to Utility Poles," *Pew Charitable Trust*, March 12, 2025, https://www.pew.org/en/research-and-analysis/issue-briefs/2025/03/broadband-expansion-may-hinge-on-states-processes-for-attaching-lines-to-utility-poles.

140. Flaherty, interview.

141. Flaherty, interview.

142. Massachusetts Broadband Institute, "Board of Directors Meeting Minutes," April 12, 2019, https://masstech.org/sites/default/files/2022-05/Minutes_MBI_Board_Meeting_April_12_2019.pdf.

143. Town of Becket, Massachusetts, "Report of the Broadband Ad Hoc Group," 2018, https://www.townofbecket.org/sites/g/files/vyhlif4146/f/uploads/report_of_the_broadband_ad_hoc_group.pdf.

144. Mary C. Serreze, "State Grossly Undercounted Utility Poles for Town-Owned Fiber Network, Charlemont Officials Tell Lt. Gov. Karyn Polito," *The Republican*, October 28, 2017, https://www.masslive.com/news/2017/10/state_woefully_undercounted_ut.html.

145. "High Speed Internet - Grant Award Updates," Town of Goshen, June 18, 2020, https://www.goshen-ma.us/broadband-high-speed-internet-grant-awards-updates/.

146. Larry Parnass, "State Sweetens Deal for Towns Building Own Fiber Networks," T*he Berkshire Eagle*, August 5, 2019, https://www.berkshireeagle.com/archives/state-sweetens-deal-for-towns-building-own-fiber-networks/article_67c85657-81a1-531f-a11c-2e8471a1a0d6.html; "High-Speed Internet Announcement in Blandford," *WWLP.com*, October 10, 2019, https://www.wwlp.com/news/local-news/hampden-county/watch-live-high-speed-internet-announcement-in-blandford/.

147. Parnass, " State Sweetens Deal."

148. Town of Goshen, Massachusetts, "High Speed Internet - Grant Awards Updates," June 18, 2020 https://www.goshen-ma.us/broadband-high-speed-internet-grant-awards-updates/; Parnass, " State Sweetens Deal."

149. Town of Heath, Massachusetts, "Minutes of the Meeting of the Heath MLPAC with Bill Ennen," April 6, 2021, https://townofheath.org/files/MLPAC_2021-04-06_with_B-_Ennen.pdf.

150. Parnass, " State Sweetens Deal."

151. Town of Washington, Massachusetts, "Annual Report," 2020, https://www.washington-ma.gov/sites/g/files/vyhlif7491/f/uploads/fy2020_annual_report.pdf; Town of Colrain, Massachusetts, "Annual Report," 2019, https://colrain-ma.gov/files/Colrain_2019_Annual_Report.pdf.

152. Town of Cummington, Massachusetts, "Cummington MLP Board Minutes," July 10, 2019, https://cummington-ma.gov/Boards.php?103&2019-07-10&bond#minutes.

153. Ortwein, interview.

154. Bill Arrigal and Bethiny Mosley, "FY22 State house Notes Program Summary," https://www.mass.gov/info-details/fy22-state-house-notes-program-summary.

155. Ibid.

156. Town of Charlemont, Massachusetts, "Select Board Status Report," November 1, 2020, https://charlemontconnect.org/2020-11-01-select-board-update/.

157. Ortwein, interview.

158. Data downloaded from Division of Local Services, Department of Reveue, State of Massachusetts, https://www.mass.gov/doc/fy18-state-house-notes-program/download, https://www.mass.gov/doc/fy2021-state-house-notes-report/download, https://www.mass.gov/doc/fy19-state-house-notes-program/download, https://www.mass.gov/doc/fy2020-state-house-notes/download, and https://dls-gw.dor.state.ma.us/reports/rdpage.aspx?rdreport=bonds.statehousenotes. Otis and Colrain appear to have eventually converted their borrowing through the state house note program to the traditional bond market. See Electronic Municipal Market Access, https://emma.msrb.org/Home/Index.

159. Kulp, interview.

160. Ibid.

161. Ortwein, interview. New Salem used a similar approach. See Town of New Salem, Massachusetts, "Annual Town Meeting Warrants," 2023, https://www.newsalemma.org/sites/g/files/vyhlif7486/f/uploads/2023_atm_final.pdf.

162. "Charlemont Network Operating Budget Approved at Annual Town Meeting," Charlemont Connect, June 1, 2022, https://charlemontconnect.org/charlemont-network-operating-budget-approved-at-annual-town-meeting/. Becket borrowed about two-thirds of what the town had initially authorized, see Town of Becket, Massachusetts, "Select Board Meeting Minutes," January 4, 2023, https://www.townofbecket.org/sites/g/files/vyhlif4146/f/minutes/2023.01.04_select_board_minutes_01242023104904.pdf.

163. Broadband Chesterfield, "Year-End Report - FY 2022," https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/uploads/broadband_mlp_fy22_year_end_report-for_posting.pdf; Broadband Chesterfield, "MLP Board Meeting Minutes," February 8, 2024, https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/minutes/2824_board_meeting_minutes_1.pdf.

164. Town of New Ashford, Massachusetts, "Annual Report," 2019, https://www.newashford-ma.us/wp-content/uploads/2020/04/AnnualTownReport2019.pdf. Plainfield, too, needed to borrow only $1.4 million of the anticipated $1.53 million. Plainfield Light and Telecommunications Department, "Update to Selectboard and Proposed FY 2023 Budget," February 20, 2022, https://www.plainfield-ma.us/media/2896.

165. Town of Plainfield, Massachusetts, "Annual Reports," 2018, https://www.plainfield-ma.us/media/2686.

166. Larry Parnass, "Washington Penny-Pinches Its Way to High-Speed Internet," *The Berkshire Eagle*, February 1, 2020, https://www.berkshireeagle.com/archives/washington-penny-pinches-its-way-to-high-speed-internet/article_ed1c8b92-2e34-5289-b555-55f01fef5c6a.html; Town of Washington, Massachusetts, "Annual Report," 2020, https://www.washington-ma.gov/sites/g/files/vyhlif7491/f/uploads/fy2020_annual_report.pdf.

167. "Small Massachusetts Town Moves Closer to Muni Fiber," Community Networks, a project of Institute for Local Self-Reliance, January 2, 2019, https://communitynetworks.org/

content/small-massachusetts-town-moves-closer-muni-fiber.

168. "Connect America Fund Phase II Auction," Federal Communications Commission, accessed July 2025, https://www.fcc.gov/auction/903.

169. Flaherty, interview. See also Town of Ashfield, Massachusetts, "Select Board Meeting Minutes," August 6, 2018, https://ashfield.org/DocumentCenter/View/3291/Select-Board-08202018-Meeting-Material-PDF?bidId=; Westfield Gas & Electric Municipal Light Board, "Executive Session Minutes," January 2, 2019, https://www.cityofwestfield.org/AgendaCenter/ViewFile/Minutes/_01022019-4264.

170. Flaherty, interview.

171. Mike Dano, "Here Are the Top 100 Winners of the FCC's $1.5B CAF II Auction," *Fierce Network*, August 28, 2018, https://www.fierce-network.com/wireless/here-are-top-100-winners-fcc-s-1-5b-caf-ii-auction. For an illuminating and in-depth discussion of the CAF II experience in Plainfield, see S. Derek Turner, "Plan Fail: How Pai Imperiled a Rural Town's Fiber Network," *Free Press*, January 26, 2021, https://www.freepress.net/blog/plan-fail-how-pai-imperiled-rural-towns-fiber-network.

172. Westfield Gas & Electric Municipal Light Board, "Regular Meeting Minutes," August 7, 2019, https://cityofwestfield.org/AgendaCenter/ViewFile/Minutes/_08072019-4650.

173. Flaherty, interview.

174. Westfield Gas & Electric Municipal Light Board, "Regular Meeting Minutes," August 7, 2019.

175. Town of Heath, Massachusetts, "Annual Town Report," 2024, https://townofheath.org/news/newsfile_11271_2024_HeathAnnualReport-print.pdf; Town of Cummington, "Annual Town Report," 2024, https://cummington-ma.gov/PDFs/TownReportFY2024.pdf.

176. Town of Goshen, "Report and Budget Recommendations for the Annual Town Meeting," May 20, 2023, https://storage.googleapis.com/proudcity/goshenma/uploads/2023/05/Finance-Committee-Report-Budget-Recommendations-for-the-Annual-Town-Meeting-May-20-2023.pdf.

177. William J. Caldwell, "Town Administrators Update," November 23, 2020, https://www.townofbecket.org/sites/g/files/vyhlif4146/f/uploads/town_administrators_update_novenber_2020_11.19.20.pdf.

178. Town of Washington, Massachusetts, "Annual Report," 2020, https://www.washington-ma.gov/sites/g/files/vyhlif7491/f/uploads/fy2020_annual_report.pdf.

179. Ortwein, interview.

180. Heath Municipal Light Board, "Meeting Minutes," January 7, 2025, https://townofheath.org/files/MLB_2025-01-07_Minutes.pdf.

181. Ortwein, interview.

182. Town of Blandford, Massachusetts, " Annual Report," 2019, https://townofblandford.com/wp-content/uploads/2019/04/annual-town-report-2019.pdf.

183. Matthew Marcus, "WhipCity Fiber Charges Forward in Westfield and Massachusetts Despite Pandemic," Community Networks, a project of Institute for Local Self-Reliance, June 9, 2020, https://communitynetworks.org/content/whipcity-fiber-charges-forward-westfield-and-massachusetts-despite-pandemic; Westfield Gas & Electric Municipal Light Board, "Regular Meeting Minutes," July 11, 2018, https://www.cityofwestfield.org/AgendaCenter/ViewFile/Minutes/_07112018-3965.

184. Shutesbury issued an RFP to which Whip City and several other applicants responded. Shutesbury initially went with Crocker Communications as its partner, but has since switched to South Hadley Electric Light Department. Town of Shutesbury, "Broadband Committee Minutes," December 4, 2017, https://www.shutesbury.org/sites/default/files/minutes/broadband-committee/shutesbury-broadband-committee-01112018.pdf; "ShutesburyNET," Town of Shutesbury, Massachusetts, https://www.shutesbury.org/broadband-home_transition.

185. New Ashford Municipal Light Plant, "Annual Town Report, FY21," https://www.newashford-ma.us/wp-content/uploads/2021/05/New-Ashford-Annual-Town-Report-2021.pdf.

186. Ortwein, interview.

187. Drawe, interview.

188. Flaherty, interview.

189. Ibid.

190. Westfield Gas & Electric, "Response from WG&E to Rquest for Infofrmation for Fiber-to-the-Home Internet Service and Network Operator Provider," September 1, 2017, accessed at https://wiredwest.net/2015s2/wp-content/uploads/2018/01/WGE-RFI-Response-9.1.17.pdf.

191. Bailey Cole, personal interview, June 2025.

192. Ibid.

193. Ibid.; Kulp, interview; Ortwein, interview.

194. Heath Municipal Light Board, "Meeting Minutes," April 1, 2015, https://townofheath.org/files/MLB_min_04-01-25_2.pdf.

195. Drawe, interview.

196. Cole, interview.

197. Ibid.

198. Drawe, interview.

199. Cole, interview.

200. Ibid.

201. Town of Becket, Massachusetts, "Select Board Meeting Minutes," January 4, 2023, https://www.townofbecket.org/sites/g/files/vyhlif4146/f/minutes/2023.01.04_select_board_minutes_01242023104904.pdf.

202. Ortwein, interview.

203. Town of Wendell, Massachusetts, "Annual Town Report," 2024, https://www.wendellmass.us/documents/2024-annual-town-report/; Town of Goshen, Massachusetts, "Annual Town Report," 2022, https://storage.googleapis.com/proudcity/goshenma/uploads/2023/05/Annual-Town-Report-2022.pdf; Town of Rowe, Massachusetts, "Annual Town Report," 2022, https://rowe-ma.gov/files/2022_ANNUAL_TOWN_REPORT.pdf

204. Cole, interview.

205. Ibid.

206. Ibid.

207. Kulp, interview.

208. Drawe, interview.

209. Whip City Fiber, "Whip City Fiber and Colrain Sign a 10-year Contract for Gigabit Internet," press release, December 8, 2022, https://colrain-ma.gov/files/20221208_Press_Release_-_10_Year_Colrain_FINAL.pdf; Flaherty, interview.

210. Cameron Pugh, "Millions in Rural America Lack Reliable Internet. How Massachusetts Towns Got Online," T*he Christian Science Monitor*, November 19, 2024, https://www.csmonitor.com/USA/Society/2024/1119/rural-broadband-internet-access-massaschusetts.

211. Kulp, interview.

212. Kulp, interview; Larry Parnass, "Washington Penny-Pinches Its Way to High-Speed Internet," *The Berkshire Eagle*, Feb 1, 2020, https://www.berkshireeagle.com/archives/washington-penny-pinches-its-way-to-high-speed-internet/article_ed1c8b92-2e34-5289-b555-55f01fef5c6a.html.

213. Parnass, "State Sweetens Deal"; Kulp, interview; Town of Blandford, Massachusetts, "Broadband Update - October 19, 2021," https://townofblandford.gov/tag/broadband/; Town of Chesterfield, Massachusetts, "Broadband Chesterfield Year-End Report - FY 2022," https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/uploads/broadband_mlp_fy22_year_end_report-for_posting.pdf; Town of Colrain, Massachusetts, "Broadband Update - December 13, 2021," https://colrain-ma.gov/p/2095/Project-Update; Town of Goshen, Massachusetts,"Goshen's High-Speed Internet Service - Sign Up & Customer Installation Info," https://www.goshen-ma.us/news/?filter_categories[]=98; Town of Heath, Massachusetts, "Annual Town Report," 2021; Town of New Ashford, Massachuetts, "Annual Town Report," 2021; Town of Rowe, Massachusetts, "Broadband Municipal Light Plant," https://rowe-ma.gov/p/38/Broadband-Municipal-Light-Plant; Town of Windsor, Massachusetts, "MLP Minutes, August 16, 2022," https://drive.google.com/drive/u/0/folders/1LE0CqtjinHPjWsSRC8yG5mrHqWERO8BS.

214. Flaherty, interview. David Kulp says Ashfield has an 80% take rate. Ortwein confirms that Alford is around 90%, as WG&E suggest. Kulp, interview; Ortwein, interview.

215. Cole, interview.

216. Amy Porter, "Blandford Voters Pass All Articles, Including $4.37M Budget," *The Reminder*, June 11, 2024, https://thereminder.com/local-news/hilltowns/blandford-voters-pass-all-articles-including-4-37m-budget/.

217. "Charlemont Network Operating Budget Approved at Annual Town Meeting," *Charlemont Connect,* June 1, 2022, https://charlemontconnect.org/charlemont-network-operating-budget-approved-at-annual-town-meeting/. See also Goshen in its first year, which the finance committee reported was likely to generate enough revenue to pay some of the costs of borrowing. Town of Goshen, "Report and Budget Recommendations for the Annual Town Meeting," May 21, 2022, https://storage.googleapis.com/proudcity/goshenma/uploads/2022/05/Finance-Committee-Report-Budget-Recommendations-for-the-Annual-Town-Meeting-May-21-2022.pdf.

218. Town of Wendell, Massachusetts, "Annual Report," 2023, https://www.wendellmass.us/documents/wendell-2023-annual-report/. Chesterfield too. Broadband Chesterfield, "MLP Board Meeting Minutes," February 13, 2025, https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/minutes/21325_board_meeting_minutes.pdf.

219. Alford is on track to pay off its debt next year. Ortwein, interview.

220. Broadband Chesterfield, "Broadband Chesterfield Year-End Report - FY 2022," https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/uploads/broadband_mlp_fy22_year_end_report-for_posting.pdf. Plainfield was already building a stabilization fund by 2021. Plainfield Light and Telecommunications Department, "Update to Selectboard and Proposed FY 2023 Budget," February 20, 2022, https://www.

plainfield-ma.us/media/2896.

221. Town of Wendell, Massachusetts, "Annual Report," 2023, https://www.wendellmass.us/documents/wendell-2023-annual-report/; "New Salem," WiredWest, https://wiredwest.net/towns/newsalem/; "Chesterfield," Whip City Fiber, https://www.whipcityfiber.com/chesterfield/.

222. Flaherty, interview.

223. Ibid.

224. Ibid.

225. Drawe, interview.

226. Kulp, interview.

227. Town of Chesterfield MLP, "Meeting Minutes," June 28, 2021, https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/minutes/062821_select_board_minutes_mlp_-justin_west.pdf; Town of Washington Finance Committee, "Meeting Minutes," October 21, 2019, https://www.washington-ma.gov/sites/g/files/vyhlif7491/f/minutes/fincomm_minutes_10_21_2019_0.pdf.

228. Town of Chesterfield, Massachusetts, "Annual Report," 2020, http://chesterfieldma.test-civiccms.acsitefactory.com/sites/g/files/vyhlif7606/f/uploads/chesterfield_town_report_fy2020.pdf.

229. Kulp, interview.

230. Ibid.

231. Town of Plainfield, "Detailed Exterior Service Drop and Installation Policy," Effective March 26, 2019, https://www.whipcityfiber.com/uploads/2019-03-26_Detailed_Drop_Policy.pdf?_cchid=9ace48857736c6f3fe82df01e1a3f654; New Ashford, "New Ashford Municipal Light Board/Select Board/Finance Committee Public Forum," December 12, 2018, https://newashford-ma.us/wp-content/uploads/2019/01/MLP12122018.pdf.

232. Kulp, interview.

233. Lisa Gonzalez, "Tiny Massachusetts Town Takes a Stand for Local Internet Access," Community Networks, a project of Institute for Local Self-Reliance, April 19, 2018, https://ilsr.org/articles/tiny-massachusetts-town-takes-a-stand-for-local-internet-access/.

234. Justin West, "Video Conferencing," *Chesterfield Council on Aging Newsletter*, March 2021, https://northernhilltownscoas.org/files/Chesterfield_Newsletter_2021-03.pdf.

235. Kulp, interview.

236. Ortwein, interview.

237. Ibid.

238. Jane Kaufman, "High-speed Internet, a New Playground and a Town Welcome Basket are Just Some of the Ways Windsor is Attracting Younger Families to its Remote Town," *The Berkshire Eagle*, March 11, 2023, https://www.berkshireeagle.com/news/central_berkshires/town-of-windsor-massachusetts-is-getting-younger-by-the-year/article_dc166a96-a3e2-11ed-8b27-fbdec1fa4f21.html.

239. Drawe, interview.

240. Julian E.J. Sorapuru, "High Speed Internet Can Be Expensive. Do Towns in Western Massachusetts Hold the Secret to Sustainable, Affordable Connectivity?," *The Boston Globe,* May 16, 2024, https://www.bostonglobe.com/2024/05/16/metro/affordable-high-speed-internet-western-massachusetts/.

241. Cole, interview.

242. Karl Bode, "West Springfield, MA Breaks Ground on Citywide Fiber Plan," Community Networks, an initiative of the Institute for Local Self-Reliance, April 2, 2024, https://communitynets.org/content/west-springfield-ma-breaks-ground-citywide-fiber-plan.

243. Michael Ballway, "Fiber-Optic Utility Expects 55% to Sign Up, Profits in 2 Years," *The Reminder*, February 21, 2024, https://thereminder.com/local-news/west-springfield-fiber-optic-utility-expects-55-to/.

244. Michael Ballway, "Council Votes Unanimously For $11M Boost to West Springfield Fiber," *The Reminder*, June 25, 2024, https://thereminder.com/local-news/hampden-county/west-springfield/council-votes-unanimously-for-11m-boost-to-west-springfield-fiber/.

245. Flaherty, interview.

246. Ibid.

247. Mass Priorities, "Municipal Broadband: Southwick's Fiber Network Proposal Faces Scrutiny Amid Financial Uncerttainties," press release, November 22, 2024, https://www.masspriorities.com/latestnews/municipal-broadband-southwicks-fiber-network-proposal-faces-scrutiny-amid-financial-uncertainties; Mass Priorities, "Southwick Risks Taxpayer Money on Uncertain Fiber-Optic Network Demand," press release, October 5, 2024, https://www.masspriorities.com/latestnews/southwick-risks-taxpayer-money-on-uncertain-fiber-optic-network-demand.

248. Flaherty, interview.

249. Ibid.

250. Town of Goshen, Massachusetts, "Annual Report," 2022, https://storage.googleapis.com/proudcity/goshenma/uploads/2023/05/Annual-Town-Report-2022.pdf.

251. Ortwein, interview.

252. Newman, interview; Atwater-Williams, interview. Newman called the effort "a tremendous undertaking."

253. Atwater-Williams, interview.

254. Susan Crawford and Robyn Mohr, "Bringing Municipal High-Speed Internet Access to Leverett, Massachusetts," Berkman Center Research Publication No. 26 (2013), Available at SSRN:https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2366044; "Leverett Municipal Light Plant," Town of Leverett, Massachusetts, accessed September 2025, https://leverett.ma.us/p/33/Leverett-Municipal-Light-Plant; Larry Parnass, "From Unserved to Connected: Leverett's Fiber Optic System a Model for Rural Towns," *The Berkshire Eagle*, Mary 27, 2017, https://www.berkshireeagle.com/archives/from-unserved-to-connected-leveretts-fiber-optic-system-a-model-for-rural-towns/article_ef46ce78-c722-5126-a13d-6d133933a947.html; Ben Storrow, "Leverett, Worthington Give Nod to Local Broadband," D*aily Hampshire Gazette*, February 16, 2011, accessed at https://wiredwest.net/2015s2/uploads/2010/07/Daily-Hampshire-Gaz-Feb-16-2011.pdf.

255. Bellow, "Alford Residents Vote 133-8"; Town of Ashfield, Massachusetts, "Annual Town Report," 2015, https://ashfield.org/DocumentCenter/View/637/Annual-Town-Report---2015-PDF; Town of Blandford, Massachusetts, "Minutes of May 4, 2015 Annual Town Meeting," https://townofblandford.gov/wp-content/uploads/2016/09/ATM-050415-minutes.pdf; Town of Chesterfield, Massachusetts, "Annual Town Report," 2015, https://www.townofchesterfieldma.com/sites/g/files/vyhlif7606/f/uploads/chesterfieldtownreport_2015_draft_4-11-16.pdf; Town of Cummington, Massachusetts, "Annual Town Report," 2015, https://cummington-ma.gov/SiteAssets/Docs/Town/TownReportFy2015.pdf; WiredWest, "Update: 22 towns authorize $34.5M for fiber"; "WiredWest," *Leyden Life*, June/July 2015, https://townofleyden.com/files/2015-06_Leyden_Life.pdf; Phillip Dampier, "Broadband Excitement Continues in Westeern Mass.; Big Support for WiredWest," *Stop the Cap!*, June 3, 2015, https://stopthecap.com/2015/06/03/broadband-excitement-continues-in-western-mass-big-support-for-wiredwest/; Lindsay, "Otis Special Town Meeting Voters Back Broadband Network Activation"; Town of Rowe, Massachusetts, "Annual Town Report," 2015, https://rowe-ma.gov/files/2015_Annual_Town_Report.pdf; Dick Lindsay, "New Selectmen Elected in Sandisfield, Tyringham," *The Berkshire Eagle*, May 19, 2015, https://www.berkshireeagle.com/archives/new-selectmen-elected-in-sandisfield-tyringham/article_0b833644-8081-5351-b613-d330a34bd34c.html; Phil Demers, "Washington Voters Eagerly Back $770,000 Broadband Measure," T*he Berkshire Eagle*, May 8, 2015, https://www.berkshireeagle.com/archives/washington-voters-eagerly-back-770-000-broadband-measure/article_600f30dd-b7b8-59d3-a3e7-8c584897f24b.html; Jim Therrien, "Windsor OKs Bonding for Broadband, Fiscal 2016 Budgets," *The Berkshire Eagle*, May 5, 2015, https://www.berkshireeagle.com/news/local/windsor-oks-bonding-for-broadband-fiscal-2016-budgets/article_1530d400-d2cb-51a1-8e76-1627a98efa4f.html.

256. Atwater-Williams, interview.

257. Ibid.

258. Newman, interview.

259. Newman, interview; Atwater-Williams, interview.

260. Ibid.

261. "Plainfield Broadband MLP," Town of Plainfield, Massachusetts, accessed July 2025, https://www.plainfield-ma.us/plainfield-broadband-mlp/page/project-history-overview.

262. Atwater-Williams, interview.

263. Newman, interview.

264. Atwater-Willaims, interview; Newman, interview.

265. Atwater-Williams, interview.

266. Sean Gonsalves, "Municipal Broadband Dark Money Campaign Washes Ashore on Cape Cod," Community Networks, an initiative of Institute for the Local Self-Reliance, December 11, 2023, https://communitynetworks.org/content/municipal-broadband-dark-money-campaign-washes-ashore-cape-cod; Calli Remillard, Noelle Annonen and Mackenzie Ryan, "Mass Priorities Looks to Shift Town Spending Through Targeted Ads; But Who Are They?", *The Enterprise*, November 16, 2023, https://www.capenews.net/townnews/welfare/mass-priorities-looks-to-shift-town-spending-through-targeted-ads-but-who-are-they/article_7f43acf2-b9de-5ad6-84d0-dd7da17f8c06.html The same parent organization waged a campaign against a Utah municipal network, UTOPIA. Tony Semerad, "Battle Erupts Over Internet Network That Serves Tens of Thousands of Utahns," *The Salt Lake Tribune*, February 9, 2024, https://www.sltrib.com/news/2024/02/09/battle-erupts-over-internet/?mc_cid=e21fc3c30f.

267. Amy Porter, "Ad Campaign Questioning Where Whip City Fiber Profits Go," *The Reminder*, May 22, 2024, https://thereminder.com/local-news/hampden-county/westfield/ad-campaign-questioning-where-whip-city-fiber-profits-go/.

268. To learn more about the Communications Union Districts in Vermont, read Ry Marcattilio and Revati Prasad, "Neighborly Networks: Vermont's Approach to Community Broadband," Benton Institute for Broadband and Society, June 2024, https://communitynets.org/reports/neighborly-networks-vermonts-approach-community-broadband.