



**Town of Middlefield
Selectboard**

P.O. Box 238, Middlefield, MA 01243
Tel: 413-623-2079
Fax: 413-623-6108
selectboard@middlefieldma.net

Date: April 7, 2015

To: Editor, Country Journal

Subject: Misleading WiredWest Mailing

The WiredWest mailing of March 24 to Middlefield residents made unauthorized use of our Town Hall mailing address in an apparent attempt to look like an official town communication.

Let us be clear: this *was not* an official town mailing and the Middlefield Selectboard *did not* pass a resolution of intent to participate in the WiredWest fiber project by that organization's December 31st deadline.

Moreover, at our April 6 Selectboard meeting we voted to *not recommend* the private citizen sponsored warrant article and motion to borrow money for the WiredWest project. We judge this to be a high-risk venture in support of an untested organization, which would expose our hard-pressed taxpayers to liability for well over \$1 million in principal and interest, plus all operating expenses and any cost overruns "regardless of WiredWest operating results," in the words of the Massachusetts Broadband Institute's counsel.

While we are deeply concerned with the inadequacy of Middlefield's broadband infrastructure, we need time to carefully evaluate the risks and benefits of any proposed solutions. We will work closely with the Massachusetts Broadband Institute to explore alternative ways to make optimal use of our town's share of last mile broadband funds. The Director of MBI has assured us that there is no penalty to not bonding this year.

Sincerely,

Alan Vint, Chair
David Dinicola
Howard Knickerbocker

Middlefield's WiredWest Financial Risks

The above letter to the *Country Journal* is based upon the following analysis of WiredWest's financial risks. Our examination brings to mind of all the warnings in drug commercials in print or on TV. With WiredWest (WW), there is no mention of the financial risks in their mailings to town selectboards or potential subscribers.

General financial risks

You can't even find "fine print" discussion of these risks on the WW website. Under "Get the Facts" they pose the rhetorical question "Isn't fiber too expensive for rural areas?" which they immediately dismiss as a "myth" since a municipal model "allows capital investment that can be written off over a longer period of time."

Their long term model will be discussed shortly, but first, where can we find information on WW risks? Our first inkling of the risks came during the municipal outreach meetings conducted in the fall of 2014 by WW, the Massachusetts Broadband Institute (MBI) and the Franklin Regional Council of Governments. After finding the WiredWest proposal to be "a credible outline of a sustainable business plan," MBI goes on to ask each town's Board of Selectmen to "acknowledge that the business model for operating the regional system is subject to significant risks and the town may ultimately be responsible for its share of operating costs."¹

We would have to wait until the December financial forum conducted by the same parties to hear the risks spelled out. There we learn from legal counsel that "Absent Additional Grant Funds, any Cost Overruns would require additional Town Contributions." Moreover, "the operating results of the WiredWest business over time are uncertain and will depend on take-up rates, pricing for services, operating costs, competition, technology change and many other factors." In other words, should the project fail to generate sufficient TV, phone, and data revenues from the limited number of potential subscribers, taxpayers in 44 of our most sparsely populated towns would be held legally liable for \$60M-\$79M in up to 30-year bonds, plus interest, operating expenses, and any cost overruns "regardless of WiredWest operating results."²

Financial impact on Middlefield

According to an email from MBI to the Middlefield Selectboard, the total cost to build Middlefield's fiber-to-the-home network would be \$1.59M.³ The email goes on to suggest that "you appropriate 1.01 M for the amount of debt to be authorized by your town. This figure reflects the benefit of your town's allocation of a share of available state grant funds." Moreover,

¹ *Solving the Last Mile: Fall 2014 Municipal Leaders Meeting*, slides 8 & 9, <http://broadband.masstech.org/sites/mbi/files/documents/building-the-network/mbi-wiredwest-municipal-outreach-presentation-11062014.pdf>.

² *Last Mile Broadband Financial Forum, December 11, 2014*, slides 13 & 17, <http://broadband.masstech.org/sites/mbi/files/documents/building-the-network/last-mile-financial-forums-ppt-12-21-14-1.pdf>.

³ "Draft Article, Motion, and Ballot Question," email from MBI Director Eric Nakajima to the Middlefield Selectboard, March 4, 2015.

the town should consider “administrative fees” to issue the bonds of approximately 3% for up to \$1M, or \$30,000 in Middlefield’s case.

How will this \$1.01M be financed, and how will it be paid off? According to the December financial forum, the town would issue notes for a portion of the total cost in years 1 & 2, on which it would pay interest at the nominal rate of 0.5 percent. At the end of year 2:

- Town has the option of renewing notes into Years 3-4-5; pays interest plus minimal principal (approximately 3.8% of principal in Year 3)
- On project completion, town issues long-term bonds (assume interest rate 4%)⁴

Based on the “Tax Impacts” spreadsheet sent by WiredWest to its delegates on March 2, 2015, year 6 debt service will be at 4% for 15 years. The attached spreadsheet of how this would play out in Middlefield, shown in the appendix, employs the parameters above, including 3.8% principal in years 3-5 and 4% interest from year 3 on. The town would have estimated up-front costs of \$261,233 in the first five years (when there would be no prospect of revenues from WiredWest), and total payments over the 20-year period would amount to \$1,448,142.

How would WiredWest pay the town back? According to the December financial presentation, a 53% uptake would be required to meet normal operating expenses + debt service in a 44-town scenario; a 68% uptake would be required in a 22-town scenario.⁵ MBI’s “final” Last Mile Overview of March 1, 2015 speaks of 31 towns “committed to joining a regional network operated by WiredWest.”⁶ If these towns do, in fact, join (indicating a required uptake of ~60%). How would this play out in Middlefield?

If 60%, or 166 of approximately 277 residential units in Middlefield signed up for service, WiredWest would have to return a *surplus of \$48 per customer per month* over selling, general and administrative expenses (SG&A), the cost of goods & services, customer equipment, and depreciation reserve, to cover \$1,448,142 in payments to the town over years 6-20.

Quite a feat, as customers are slated to pay only \$49 per month for 25 Mbps broadband service.⁷

Likewise, when we look at the WW 44-town revenue model with a 53% uptake (14,300 customers), revenues of *\$131 per customer per month* are required to meet annual operating expenses + debt service of \$22.5M in years 5-20.⁸ This is a far cry from \$49, and even exceeds the WW starting price for “triple play” service of \$118 per month.

⁴ *Last Mile Broadband Financial Forum*, op. cit., slide 22.

⁵ Ibid, slides 37 & 40.

⁶ “Last Mile Overview,” MBI presentation dated March 1, 2015, slide 3. Middlefield is apparently included in the count although it has yet to commit to join.

⁷ *Last Mile Broadband Financial Forum*, op. cit., slide 34.

⁸ Ibid, slides 34 & 37.

Solving for the 40% uptake

At the “Last Mile Update” held at the Hampshire & Franklin Municipal Conference on March 21, 2015, WiredWest Vice-Chair and Treasurer, Jim Drawe, stated that only a 40% subscriber uptake would be required to meet each town’s operating expenses and debt service. This assertion was repeated in his answers to Town of Egremont questions sent to WiredWest delegates on March 25, in which he stated that “I only finished with the model about 4 days ago.”⁹

In solving for a 40% uptake, we now find that if only 111 residential units in Middlefield signed up for service, WiredWest would have to return a *surplus of \$72 per customer per month* over selling, general and administrative expenses (SG&A), the cost of goods & services, customer equipment, and depreciation reserve, to cover \$1,448,142 in payments to the town over years 6-20. In solving the WW 44-town revenue model with a 40% uptake (10,792 customers), revenues of *\$174 per customer per month* are required to meet annual operating expenses + debt service of \$22.5M in years 5-20.

Additional risks

Based on the above analysis, there is little chance that the principal and interest of Middlefield’s bonds would be paid out of WW surplus revenues. Unfortunately, the risks don’t end there – several other factors could potentially add to taxpayer liabilities:

- While WW took their premises count of 26,981 from the U.S. 2010 Census, Howard Knickerbocker pointed out in a letter to the Country Journal that “only 19,367 of these premises are occupied, according to the same Census, leaving 7,614 (39%) phantom potential customers in the WiredWest financial model.”¹⁰
- Many of the premises are occupied by seasonal residents – 43 out of 277 in Middlefield’s case – who are unlikely to subscribe to year-round WW service.
- Intense media competition and rapid technological change make it difficult to forecast five years into the future, let alone over the 20-year span of WW financing.
 - WW is banking on TV subscriptions at \$58 per month¹¹ when, for example, Sling TV from Dish with ESPN, ESPN2, TNT, etc. costs \$20 per month. Apple TV will soon jump into the fray. TV, in turn, is being increasingly displaced by Subscription Video on Demand (SVOD) from the likes of Netflix, Amazon Prime or Hulu, particularly among younger demographics and families with children, according to a recent Neilson Report.¹² According to a report in the Greenfield Reporter, “Drawe said **phone and TV service have low profit margins**, but WiredWest could turn a profit from Internet service.”¹³

⁹ “Egremont questions and answers,” email from Jim Drawe to WiredWest delegates, March 25, 2015.

¹⁰ “Phantom figures,” Howard Knickerbocker Letter to the Editor of the Country Journal, February 2, 2015.

¹¹ *Last Mile Broadband Financial Forum*, op. cit., slide 34.

¹² Neilson *Total Audience Report, Q4 2014*, <http://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2015-reports/total-audience-report-q4-2014.pdf>.

¹³ “Warwick gets breakdown of \$2.5M broadband project,” Greenfield Recorder, March 15, 2015 (<http://www.recorder.com/home/16054176-95/warwick-gets-breakdown-of-25m-broadband-project>).

- “Fully-featured phone service, with nationwide calling, for an additional \$25 a month” might be a hard sell for WW. Younger phone users tend to be mobile-only, while families with land lines may be reluctant to give up copper service with its proven reliability when power goes out. Moreover, Google, among other providers, is coming out with low cost hybrid offerings that utilize WiFi indoors and automatically switch to cellular service when outdoors.
- New broadband delivery technologies, such as drones or low orbiting satellites, could drastically lower the cost of broadband service. Google and Facebook, for example, follow a different business model, and may want to give basic service away in order to keep their search advertising market share.
- Above all, Mobile internet traffic, which had been a fraction of that of wired PCs at WW’s founding in 2010, now exceeds that of PC’s, and mobile video traffic is expected to undergo a further 10X explosion between 2014 & 2020. LTE will be the predominant means of communication by then, and we will be evolving toward 5G wireless technologies with data rates exceeding 10 Gbps.¹⁴

According to Jim Drawe, “WW will have the flexibility to seek other sources of revenue that that [sic] of residential subscribers, such as leasing dark fiber to other networks and offering other services such as home security and cloud based computing and storage.”¹⁵ It’s hard to see WiredWest as a significant player in dark fiber, home security or cloud-based computing. Cloud storage is being given away by Microsoft, Apple, Amazon, Google, Dropbox and others.

However, should revenues fall short, Drawe assures us that “**WW will have no restrictions on its ability to raise rates if that should become necessary.**”¹⁶ Even if it were capable of such monopolistic behavior, WiredWest would be violating the promise of \$49 service it made to secure town and subscriber commitments.

Conclusion & recommendation

In conclusion, there is no evidence to support the WW assertion that their municipal model “allows capital investment that can be written off over a longer period of time.” On the contrary, we should carefully weigh the risks laid out by MBI’s legal counsel, as well as the additional risk factors that could burden us with both financial and operational costs.

Also recommended is that we work with MBI to examine alternate ways to invest Middlefield’s share of last mile broadband funds.

Middlefield Selectboard

Alan Vint, Chair

David Dinicola

Howard Knickerbocker

¹⁴ *Ericsson Mobility Report*, November 2014, <http://www.ericsson.com/res/docs/2014/ericsson-mobility-report-november-2014.pdf>.

¹⁵ “Egremont questions and answers,” op. cit.

¹⁶ Ibid.

Appendix: Middlefield's WiredWest Fiber Financing

Borrowed amount = \$1,010,000 (year 3) at 4%; renewed year 6					
Year 1 = 0.5% interest + legal fees					
Year 2 = 0.5% interest only					
Years 3-5 = 3.8% principal + 4% interest (no WW reimbursement)					
Years 6-20 = Principal + 4% interest					
Total Payments = 1,448,142					
	Bond	Owed		Payments	
Year	Balance	Principal	Interest	Town*	Town or WW
1	250,000		1,250	31,250	
2	500,000		2,500	2,500	
3	1,010,000	38,380	40,400	78,780	
4	971,620	36,922	38,865	75,786	
5	934,698	35,519	37,388	72,906	
6	899,180	59,945	35,967		95,912
7	839,235	59,945	33,569		93,514
8	779,290	59,945	31,172		91,117
9	719,345	59,945	28,774		88,719
10	659,400	59,945	26,376		86,321
11	599,455	59,945	23,978		83,923
12	539,510	59,945	21,580		81,525
13	479,565	59,945	19,183		79,128
14	419,620	59,945	16,785		76,730
15	359,675	59,945	14,387		74,332
16	299,730	59,945	11,989		71,934
17	239,785	59,945	9,591		69,536
18	179,840	59,945	7,194		67,139
19	119,895	59,945	4,796		64,741
20	59,950	59,950	2,398		62,348
		1,010,000	408,142	261,223	1,186,919
* Year 1 includes estimated \$30,000 cost to issue bonds					