MARATHON COUNTY BROADBAND TASK FORCE

MEETING AGENDA

Date & Time of Meeting: **Monday, September 14, 2020 at 4:00 P.M.**
Meeting Location: **Conference Room 5, 212 River Drive, Wausau, WI**

Task Force Purpose: *Develop recommendations identifying the potential role of Marathon County in facilitating the expansion of Broadband access in Marathon County. Review the Report: Broadband for Marathon County Broadband Assessment and Plan prepared by Design Nine and develop broad policies and partnership recommendations relating to the expansion of broadband/internet services throughout Marathon County.*

Task Force Members: Katrina Becker, Eric Budleski Sandi Cihlar, Sara Guild, Jacob Langenhahn, Emmett McBride, Kent Olson, and John Robinson

The meeting site identified above will be open to the public. However, due to the COVID-19 pandemic and associated public health directives, Marathon County encourages Task Force members and the public to attend this meeting remotely. Instead of attendance in person, Task Force members and the public may attend this meeting by **telephone conference**. If Task Force members or members of the public cannot attend remotely, Marathon County requests that appropriate safety measures, including adequate social distancing, be utilized by all in-person attendees.

Persons wishing to attend the meeting by phone may call into the **telephone conference beginning five (5) minutes prior to the** start time indicated above using the following number: +1-408-418-9388 Access Code: 146 156 1110 Password: BroadbandTF.
If you are prompted to provide an "Attendee Identification Number," enter the "#" sign. No other number is required to participate in the telephone conference. When you enter the telephone conference, **PLEASE PUT YOUR PHONE ON MUTE!**

AGENDA ITEMS:

1.   CALL TO ORDER;
2.   PUBLIC COMMENTS (15 minute limit)
3.   APPROVAL OF THE MINUTES OF THE AUGUST 17, 2020 BROADBAND TASK FORCE MEETING
EDUCATIONAL PRESENTATIONS AND COMMITTEE DISCUSSION
4.   PRESENTATION ON ONEIDA COUNTY BROADBAND EXPANSION PROJECT – STACEY JOHNSON
5.   PRESENTATION ON RURAL DIGITAL OPPORTUNITY FUND AUCTION – SCOTT NYMAN
POLICY DISCUSSION AND POSSIBLE ACTION:
6.   ROUTES TO RECOVERY FUND USE
   A.   EXISTING TOWER USE
   B.   TOWER INFRASTRUCTURE ACQUISITION
   C.   UPDATE ON LIBRARIES AND POLLING LOCATIONS AS WIFI HOTSPOTS
   D.   SCHOOL DISTRICT SURVEY INFORMATION - RACHEL SCHEMELIN
7.   AUGUST INTERNET SERVICE PROVIDER MEETING SUMMARY
8.   PUBLIC SERVICE COMMISSION GRANT OPPORTUNITY
9.   NEXT MEETING LOGISTICS AND TOPICS
10.   NEXT STEPS
11.   ADJOURN

"*Any person planning to attend this meeting who needs some type of special accommodation in order to participate should call the County Clerk's Office at 715-261-1500 or e-mail infomarathon@mail.co.marathon.wi.us one business day before the meeting.*

SIGNED /s/ John Robinson
 Presiding Officer or Designee

BROADBAND TASK FORCE
MINUTES

Tuesday, August 17, 2020
212 River Drive, Room 5, Wausau WI 54403

Attendance:	Present	Absent
	John Robinson, Chair	
	Nancy Anderson	

Also Present:
VIA Web or Phone:

Katrina Becker
Eric Budleski
Wade Carroll
Sandi Cihlar
Richard Downey
Randy Fifrick
Kurt Gibbs
Sara Guild
Jason Hausler
Gerard Klein
Lance Leonhard
Ka Lo
Emmett McBride
Melinda Osterberg
Peter Weinschenk, Record Review

AGENDA ITEMS

1. **Call Meeting to Order**
Meeting was called to order by Chair John Robinson at 4:00 pm. All participants welcomed.

2. **Public Comments**
No public comments

3. **Approval of the Minutes of the July 27, 2020 Meeting.**
Motion to approve by E Budleski, seconded by S. Guild.

EDUCATIONAL PRESENTATIONS AND COMMITTEE DISCUSSION

4. **Update on Research Regarding County Broadband Authority**
Chair Robinson reported that he had several discussions with the Wisconsin Counties Association related to broadband access in Wisconsin. The Counties Association is conducting research on this topic and will complete their study in August. They are not examining the State statutory framework or the role of Internet Service Providers (ISPs). J. Robinson also spoke with M Rainbolt, Government Affairs Associate, regarding the question of whether counties are eligible to become more actively engaged, owning a portion of the delivery system. Answer is forthcoming.

5. **Presentation on Public-Private Partnership Broadband Case Studies**
Please refer to links sent from M. Osterberg regarding the presentation by Oneida County in 2016. J. Robinson

asked attendees to review the summary. The case studies in the Design Nine Study provided a lot of background information on what other communities have done. The Task Force will examine a speaker to present at a future meeting.

6.   **Marathon County Broadband Funding**
L. Leonhard reported that the County Board will address the 2020 annual budget funding and set aside funds for use relative to broadband expansion. The County Board will discuss use of these funds and Route to Recovery (from Federal Care Act) funds for broadband expansion. Route to Recovery Funds must be used by the end of the year. The decision was made to approach the towns, villages and cities in Marathon County and ask them if they would be interested in transferring a portion of their allocation to help support the cost of expanding internet services, especially where service is inadequate. We're hoping to generate sufficient funds to start a pilot project(s) in the county.

POLICY DISCUSSION AND POSSIBLE ACTION:

7.   **Establish Baseline Broadband Speed**
M. Osterberg shared a summary document of what speeds are needed to support specific uses and the FCC broadband definition. The Task Force discussed the various speeds that are available throughout the County. It was also recognized that cellular hotspots must be considered as well, especially from a public safety standpoint as there are areas where there is no internet or cell phone service. The Task Force determined that they should request 100 Mbps symmetrical service. If that level of service cannot be provided, the internet service provider would need to provide a rationale for the reduced level of service. The Task Force also established a minimum speed of 25 Mbps download/3 Mbps upload speed for County supported projects. A meeting has been scheduled with the Internet Service Providers this month.

8.   **Short Term Goals**:
A.   Use of Routes to Recovery and Other Funding Sources
Discussion held earlier (see no. 6) Funds can also come from the next round of Public Service Commission (PSC) grants. The PSC will begin accepting applications September 1.

B.   Development of a Pilot Project
G. Klein reported on the Design 9 plan for broadband expansion which provides a plan for future expansion. Currently, the Task Force is examining data collected from various places, i.e., schools, libraries, polling places and outlying municipalities, and identifying gaps where the County could do pilot projects. Towns that will be allocating Routes to Recovery funds for broadband expansion should also be included if they have gaps in cell or internet service, specifically the northern tier of the County which can also be targeted in a PSC grant.

C.   Expanded Public Wi-Fi Access
Several library facilities do not have adequate Wi-Fi, Route to Recovery funds can be allocated for these improvements. The County will need to determine which facilities need improvement and identify the appropriate technology to expand service.

D.   Preparation for August Meeting with Internet Service Providers
The County met with the Internet Service Providers in March and will be scheduling a meeting with them this month. Please review the March meeting notes (included in your packet from the July 27 BBTF meeting). If you cannot attend this meeting, please send one of the committee members your questions.

9.   **Long Term Goals**:

A.   Review of Design Nine Broadband Feasibility Study Recommendations
The Task Force discussed this design expanding service, however, the Internet Service Providers were not interested in leasing fiber.

10. **Next Steps**
    - County board will be adopting resolution for routes to recovery funds
    - Update library coverage
    - Begin to define pilot project(s)
    - RFPs for pilot project(s)
    - Routes to recovery and Public Service Commission grants
    - Secure speaker from Oneida County
    - Inform area municipalities that they can transfer Routes to Recovery funds to the County for broadband expansion

11. **Set Future Meeting Dates and Schedule**

The Task Force scheduled meetings for every very third Monday until the end of 2020. M. Osterberg will send the group a calendar invite.

12. **Adjourn**

There being no further business to discuss, meeting adjourned at 5:27 PM.

Respectfully submitted by,
Nancy Anderson

Melinda Osterberg
Community Development Educator
Merrill: 715-539-1080 Wausau: 715-261-1204
Melinda.osterberg@wisc.edu

September 14, 2020 Broadband Task Force Meeting

It may be beneficial to review the following resources and documents prior to the first Broadband Task Force meeting on September 14th.

August ISP Meeting

Representatives from Charter Communications, Cirrinity, NetPros and AirRunner attended the August 24th Internet Service Provider meeting. Administrator Leonhard explained that the County is examining the potential to pool municipal Routes to Recovery dollars to fund projects that would increase broadband access in Marathon County. Funds would need to be allocated by November 6th.

Gerry Klein asked for input on a potential grant program for telephone poles that could be used for fixed wireless service.

The Internet Service Providers reiterated that service was available throughout the majority of Marathon County and, given the tight timeline, did not know of any projects that could be funded using Routes to Recovery funds. The Internet Service providers did think that it would be helpful to develop a database or map of service requests where they could not provide broadband service.

Also included in the meeting packet:

- Letter sent to area municipalities regarding use of Routes to Recovery Funds
- Information regarding WIFI access at the Marathon County Public Libraries
- Potential PSC grant opportunity from Northwoods Connect

August 19, 2020

Dear Local Government Leader:

The COVID-19 pandemic has placed significant burdens on all of us. It has also highlighted the need to have access to reliable and adequate broadband services. Unfortunately, there are many areas in Marathon County where there are few, if any, viable options for increasing broadband capacity.

As you may be aware, the Marathon County Board of Supervisors (the Board) has been working to expand broadband services to the County's residents. Before the COVID-19 public health emergency changed everyone's plans for 2020, Design Nine, the Board's consultant, completed and delivered a Broadband Assessment and Plan.

Click here for a link: https://www.co.marathon.wi.us/Home/Announcements/tabid/66/articleType/ArticleView/articleId/990/Broadband-Assessment-Study.aspx

In response, the Board established a Broadband Task Force to define the county's role with respect to broadband expansion, work with internet service providers and other partners and establish priorities for expansion efforts.

Following the federal declaration of emergency, you received notification from the State of Wisconsin regarding the availability of a funding allocation through the Routes to Recovery (R2R) Program to cover eligible COVID-19 costs. The federal Coronavirus Aid, Relief, and Economic Security Act (CARES) Act, which funds Wisconsin's R2R Program, imposes limits on the use of the funds. The funds may only be used to reimburse government expenditures that were unbudgeted and are necessary to respond to the COVID-19 public health emergency. The R2R Program is making these funds available for eligible expenditures incurred from March 1 through November 6, 2020.

- Guidance regarding the Route to Recovery Program is available here - https://doa.wi.gov/Secretary/RRG-ProgramGuidance.pdf
- Additional information compiled by the Wisconsin Counties' Association and League of Municipalities is available here - https://files.constantcontact.com/77ea05ac001/4e8d8739-0427-41c5-85d7-2f30146d15a3.pdf
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The R2R Program allows a local government to transfer all or part of its allocation balance to another local government (*i.e.,* Marathon County) using the Expense Reporter, so long as the transfer is made before the receiving government, in this case the county, submits its expense report for the final November reporting period. Or, a local government can also allocate a set portion of its entire balance to another local government by emailing your different allocation instructions to the Wisconsin Department of Administration (DOA)

Please note, the correct* email address is: covidgovgrant@wisconsin.gov

The customized transfer can be accommodated but cannot be entered by the local government in the Expense Reporter and must be applied by the DOA based on your email instructions. In this way, the local government can retain the flexibility to use a portion of its allocation through the reporting period and transfer a set amount to Marathon County for use increasing broadband capacity.

Marathon County sees an opportunity to utilize R2R Program funds to make sure that residents are connected to broadband services which is important for telehealth, working at home and allowing students to access education on the internet.

We are requesting that you consider transferring any portion of your allocation that you are not anticipating using for your own COVID-19 response efforts to the county to be used to expand broadband services to underserved areas. Otherwise any unused funds automatically return to the state for reallocation. The county would pool those resources and work with school districts, internet service providers and others to expand access through upgrading service, creation of hotspots and other initiatives.

There are two additional considerations to bear in mind. First, your local governmental unit may wish to implement its own broadband initiative. In that case, you may plan and pay for your own project through the Expense Reporter without the involvement of the County. The second consideration is that although the County would attempt to target residents of local government units that contribute, the Board cannot guarantee that funds you transfer to Marathon County will directly benefit the residents of your local government unit. I am nevertheless requesting that you consider transferring that portion of your allocation that would otherwise go unused. As indicated above, such funds will otherwise return to the State.

For the County to adequately plan the project, we will need to know if you intend to transfer a portion of your allocation to the County no later than September 18, 2020. Once we have your commitment, you will need to email your instructions to the DOA using the email address provided, above.   These funds must be spent by November 6th.

On behalf of Marathon County, I would like to thank you in advance for your consideration of this request. If you have any questions or are interested in obtaining more information please feel free to contact Melinda Osterberg by phone at either 715-261-1240 or 715-252-9459 and by email at Melinda.osterberg@wisc.edu .

Sincerely,

Kurt C. Gibbs

Kurt Gibbs
Chairman, Marathon County Board of Supervisors

* On Page 7 of the RRG-ExpenseReporterInstructions, there is a typo on the email address for the DOA. The email address on page 8 of the instructions is the correct address. The email address listed above is correct.

Library Wi-Fi Findings

During the week dated 8/10-8/14/2020 we went to all of the Marathon County Public Library locations and conducted internal and external Wi-Fi speed testing. The testing was conducted at various locations (where we thought people would naturally try to access the Wi-Fi) outside each of the buildings.

When conducting our testing, we used a well-known third party application Speed Test by Ookla (accessed at https://www.speedtest.net/ or through the Apple/Android market place). Although the testing results, internally, weren't surprising (hovering in the 60-80 mbps download range); the branch findings tell a bit more about the fickle nature of Wi-Fi. To give an idea of how much speed one really needs to do things, Ubiquiti (the manufacturer of our AP's) suggest the following:

Application	Potential Peak Throughput	Avg. Throughput Used
Web Browsing/Email (Light)	1 Mbps	.25 Mbps
Web Browsing/Email (Moderate)	2 Mbps	.5 Mbps
Web Browsing/Email (Heavy)	4 Mbps	1 Mbps
Apple Facetime Video Call (HD quality)	.7 Mbps	.7 Mbps
Skype Group Video Call (7+ people)	8.5 Mbps	8.5 Mbps
Netflix Video Streaming (HD Quality)	5 Mbps	5 Mbps
Netflix Video Streaming (Ultra HD Quality)	25 Mbps	25 Mbps

(https://help.ui.com/hc/en-us/articles/360012947634-UniFi-Troubleshooting-Slow-Wi-Fi-Speeds-
Accessed 8/13/2020)

These speeds are almost guaranteed inside any of our buildings, externally is less reliable. Wi-Fi signal and speed can be effected by any number of things, such as the environment (building materials, trees, poles, etc.) or positioning (where is the access point AP installed at, relative to the user). As such, the following external findings will not show much in the way of consistency.

Should MCPL move forward with trying to provide 25 Mbps, as an external speed, to our communities; it would be my suggestion to purchase and install Wi-Fi antennas. We would then be able to extend our range (highly probable) and raise the speed in external areas (highly possible).

Notes: Due to the location of the library in the building, there is not signal enough to connect to. Denoted by the red oval. Therefore, no test could be taken.

Other Signals: There are several other signals available all low and private, including Trinity Church.

MCPL Athens

	Download in Mbps	Upload in Mbps
1	16.8	4.5
2	16.7	4.7
3	20.6	4.75
4	28.7	4.8
5	18.5	4.65
6	16.4	4.9
7	14.5	4.83
8	22.1	4.85

MCPL Edgar

Other Signals: There are two other signals available here: Edgar Police and Edgar Municipal.

	Download in Mbps	Upload in Mbps
1	27.4	6
2	25.7	7.2
3	20	7.17
4	24.9	7
5	31.6	7.19
6	29.2	7.10
7	6.2	1.19
8	14	6.68

MCPL Hatley

Other Signals: There are 3 private low signaled networks detected.

MCPL Marathon City

	Download in Mbps	Upload in Mbps
1	10.4	4.46
2	10.4	4.38
3	10.3	4.59
4	9.54	4.52
5	No Signal	No Signal
6	8.41	4.3

Other Signals: No other network were detected.

	Download in Mbps	Upload in Mbps
1	6.03	4.39
2	7.26	4.6
3	8.35	1.02
4	9.10	3.66
5	9.12	3.87
6	No Signal	No Signal

MCPL Mosinee

Other Signals: Several private low powered networks were detected.

	Download in Mbps	Upload in Mbps
1	4.91	6.67
2	15.1	16.5
3	2.75	2.5
4	4.73	7.18
5	No Signal	No Signal

MCPL Rothschild

Notes: The notation used by Google for the location of the village hall and library are incorrect, as the library is actually located closest to testing sites 1 and 2. We believe that speeds can be improved with the relocation of the library's AP and finishing the Charter/Spectrum project including a new firewall, switch, and the library's own internet connection (was shared with police department).

Other Signals: There is a Village of Rothschild signal available.

	Download in Mbps	Upload in Mbps
1	12.1	9.44
2	18.2	11.4
3	18.7	11.3
4	13.9	11.3
5	10.2	4.18
6	No Signal	No Signal
7	No Signal	No Signal

MCPL Spencer

Notes: There is a Village network (NetGear 18) available.

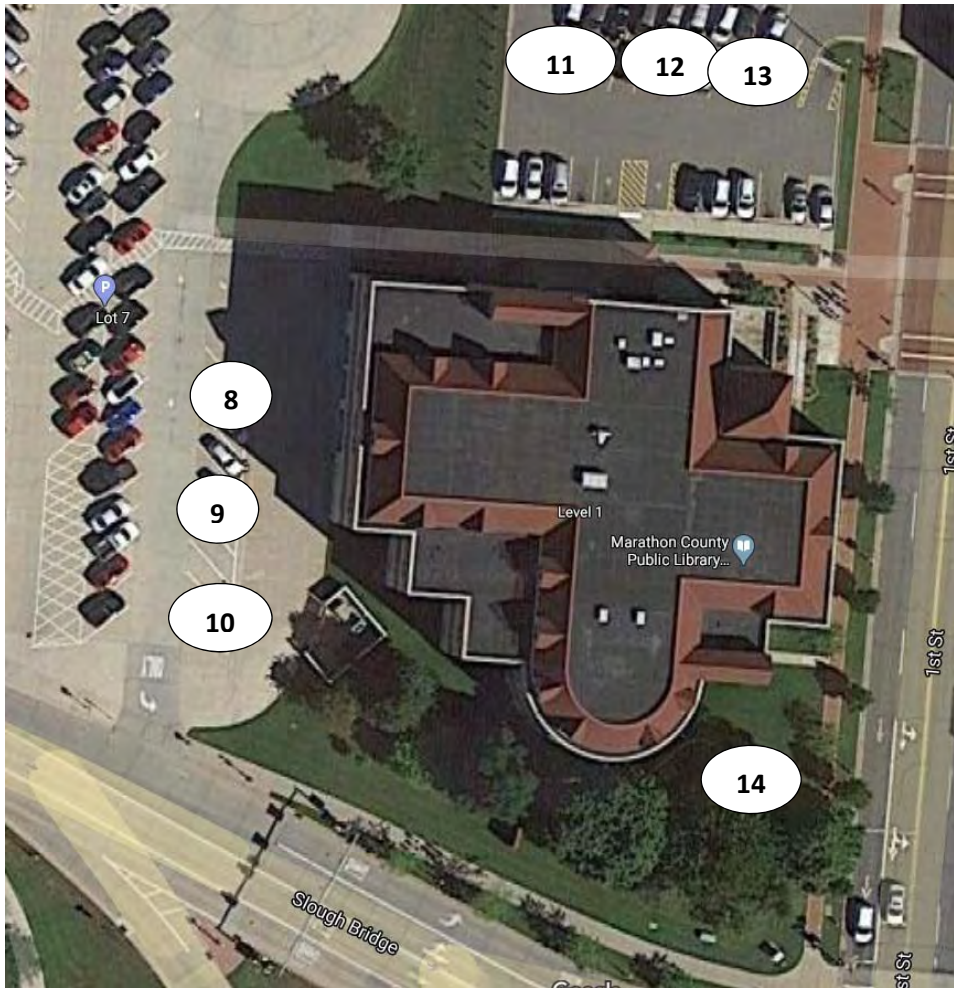|	Download in Mbps	Upload in Mbps
1	17	5
2	7.1	4.9
3	8	5.1
4	3.3	5.2
5	.44	4.14

MCPL Stratford

Notes: Signal strength may be improved with relocation of AP.

Other Networks: There are 2 weak signaled networks available- Strat Guest and Strat Open.

MCPL Wausau

	Download in Mbps	Upload in Mbps
1	26	7
2	21	6
3	5	5
4	No Signal	No Signal
5	2	2
6	1.6	0
7	11	1

	Download in Mbps	Upload in Mbps
8	9.8	5.8
9	22	7.5
10	16	6.87
11	No Signal	No Signal
12	No Signal	No Signal
13	No Signal	No Signal
14	17	8.32

From: Matt Osterman <matt@northwoodsconnect.com>
Sent: Tuesday, June 16, 2020 10:35 AM
To: Melinda Osterberg <melinda.osterberg@wisc.edu>
Cc: Paul Osterman <paul@northwoodsconnect.com>; Lance Leonhard <Lance.Leonhard@co.marathon.wi.us>
Subject: Re: Marathon County Grant Updates...

Hey Melissa and Lance,

We put together an example coverage map to show you what's possible given wireless technology and to reiterate our interest in partnering on making high-speed Internet ubiquitous within Marathon. We selected 5 locations in the NE section of Marathon and put up 5 virtual towers to see what kind of coverage was possible. Obviously these locations aren't secured, we just felt that the geographic distribution and population centers worked well enough for this example. And based on our experience, we could expect that most people within the coverage areas could expect 25Mbps download speeds (or more if they have line of sight to the tower).
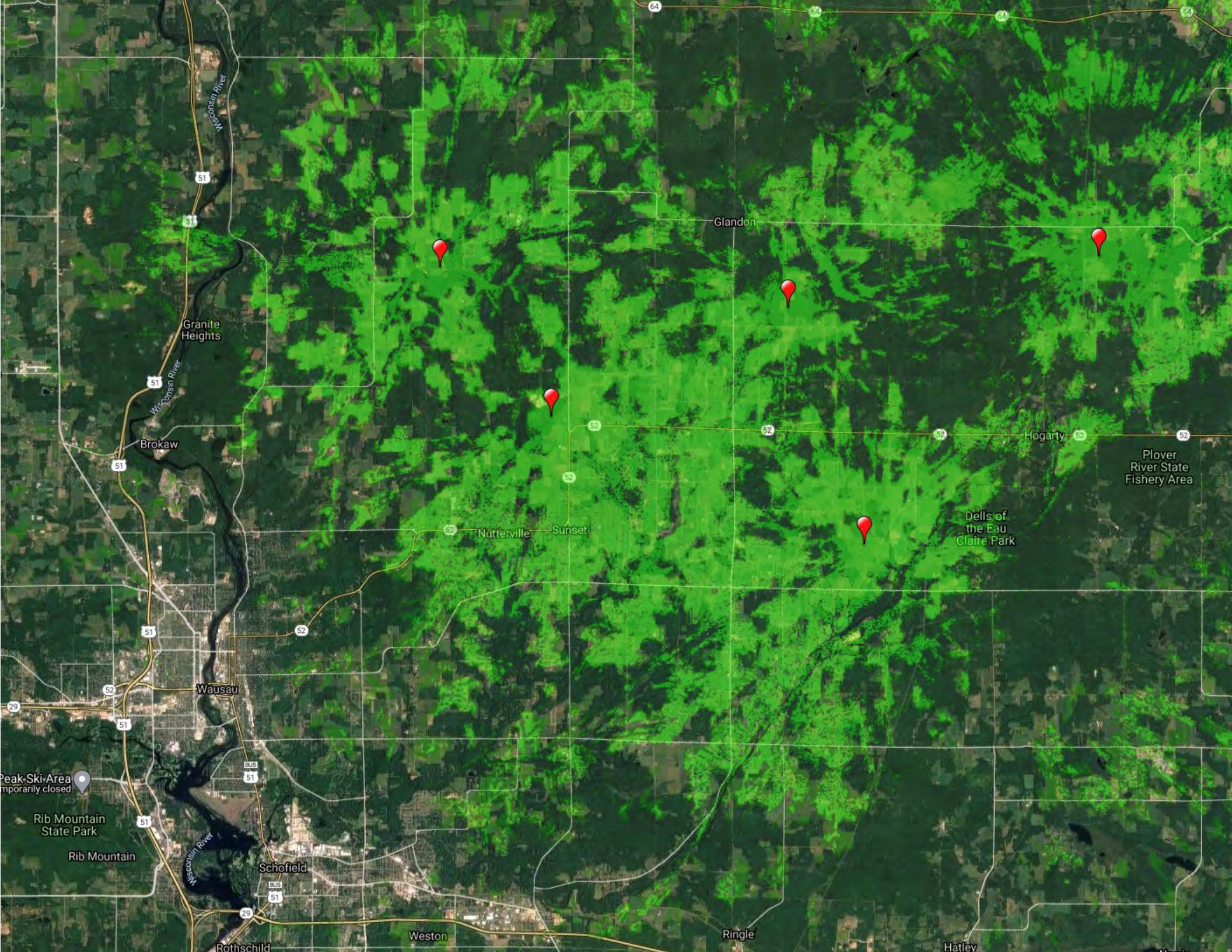
Generally speaking, we can purchase, engineer, and install a tower and all equipment for around $150k (not including land). So this phase of the project would likely come in around $750k-$850k. If we're partnering on the next WI PSC grant, we could throw in $50k in matching labor costs in addition to the already discounted construction fees. Assuming the county (and/or other partners) could find $300k-$350k in cash for matching funds, we'd be fairly confident that the PSC would fund such an endeavor. As a reminder, we've won 8 previous PSC grants, so we have a decent system down. We also feel like phase 2 of this approach would lend itself well to connecting towers via fiber and ultimately FTTH if deemed necessary.

It's also important to note that the PSC doesn't deem all of Marathon eligible, but they also understand their map is not perfect and will listen to counter arguments if the boots-on-the-ground feedback is valid.

We're truly unsure of how far down the road you are or if you've picked other partners yet, but if you're hoping to aim for a PSC grant this year, we feel like the work should begin soon.

Either way, we're always happy to answer any questions!

Matt Osterman
Northwoods Connect