



Internet Service Provider Recommendation Public Hearing

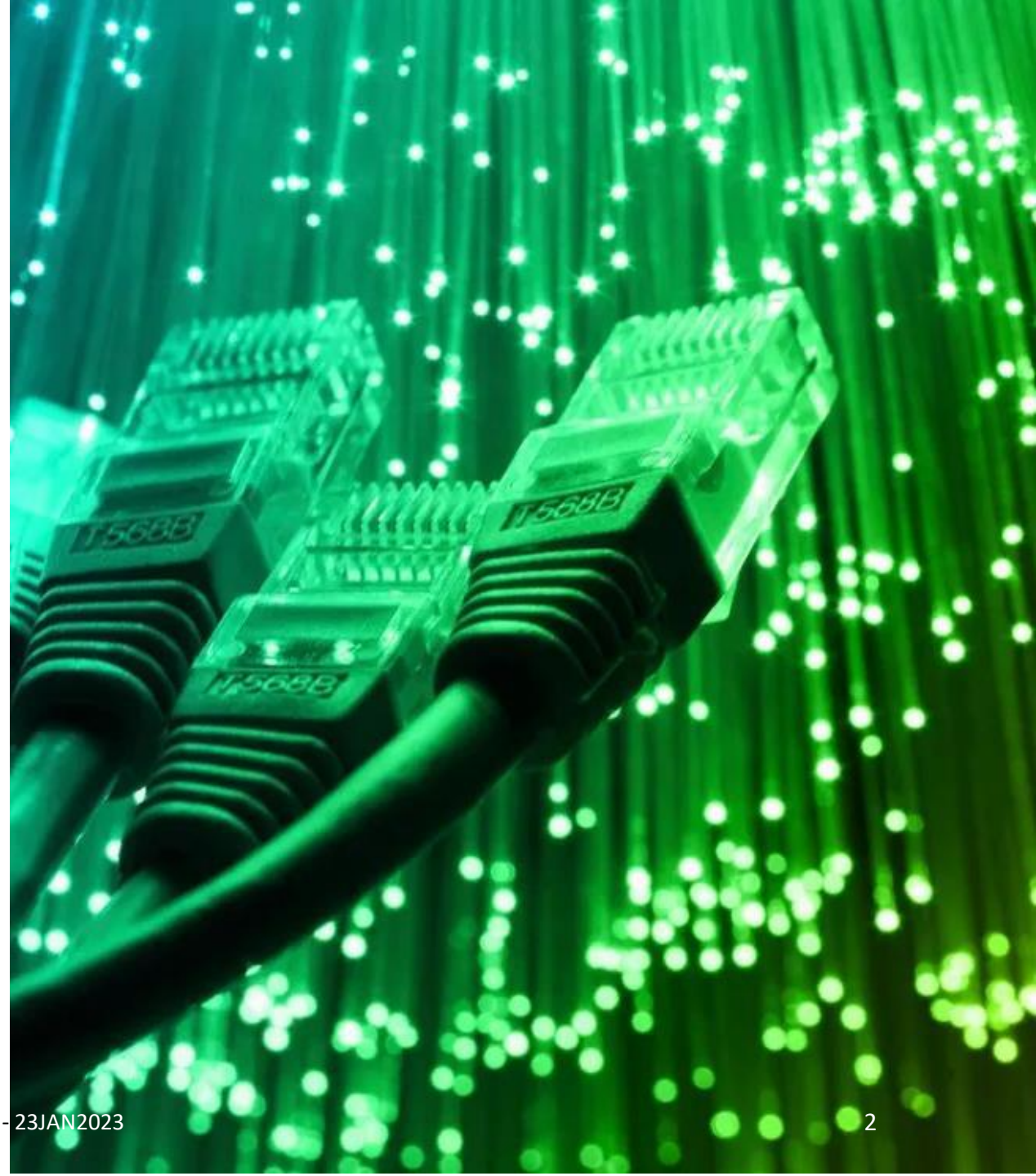
Town of Sevastopol Communications &
Technology Committee

January 23, 2023



Agenda

- Background
- Broadband Committee
- Committee Process
- ISP Selection Criteria
- ISP Recommendation
- Impact for Residents & Businesses
- Q&A
- Next Steps



Broadband Expansion Journey

2019

Town Comprehensive Plan Update

Improved broadband access was identified as an important need during resident feedback sessions

2020

Fixed Wireless Broadband Expansion

Explored DCB fixed-wireless expansion in town to improve interior broadband access

2021

Co-Sponsor of countywide broadband study (aka, Finley Engineering Report)

Comprehensive engineering study to provide recommendations for improving broadband access in Door County

2022

WI-Public Service Commission (PSC) Broadband Expansion Program

Supported Charter / Spectrum grant submission to install fiber to the home at 212 locations in the town and nearby municipalities

Communications / Technology Committee initiates broadband expansion process

Broadband is not a “nice-to-have; it’s a critical utility for all residents

Town of Sevastopol Broadband Committee

Broadband Project Goals

- Gather & Quantify Town Needs
- Evaluate the Range of Solutions and Funding
- Identify potential Internet Service Provider Partner



Jeanne Vogel, Chairperson

- 4693 Windemere Dr
- Town Board Supervisor
- Real Estate (retired)



Paul Kasriel

- 4553 Glidden Dr.
- Chief Economist – Northern Trust (retired)



Steve Jenkins

- 4416 Madeline Ln
- Executive Director, Door Co. Economic Development Corp. (retired)



Darrick DeMeuse

- 4990 Country View Rd.
- Assistant videographer for Town



Paul Wickmann

- 3871 Bay Shore Dr.
- Financial Advisor, Nicolet National Bank (retired)

Advisory Support



Hugh Zettel

- 3986 Glidden Dr.
- Chairperson, Door Co. Broadband Committee
- Technology, Business Dev., Marketing: GE Healthcare (retired)



Jessica Hatch

- Door County Broadband Coordinator
- ISP industry experience



Broadband Committee Process

January '22

Gather
Feedback

- Finley Engineering Report
- Conduct Surveys
 - Town Survey (Feb-April)
 - FibernetDoorCo. Broadband Survey (July - Now)
- County-wide Broadband Summit (June 2022)

July

Identify ISP
Options

- Conducted ISP in-person presentations
 - ATT
 - Bertram
 - Charter / Spectrum
 - Nsight
- Request for Information (RFI) issued

September

Issue Request
For Proposal
(RFP)

- Detailed RFP created
- Invited broad participation statewide... and beyond
- ISP Responses:
 - ATT
 - Bertram
 - Bug Tussel
 - Charter / Spectrum
 - Frontier – declined
 - Nsight – declined
 - TDS - declined

January '23

ISP
Recommendation

- Public Hearing
- January 26, 2023: committee review of public hearing feedback
- February 20, 2023: formal recommendation to Town Board

20+ Committee Sessions; Countywide Municipality Best Practice Sharing; Thorough Analysis



What we learned from resident feedback

Two Surveys Conducted in 2022

- Town survey (Feb-Apr 2022): 432 responses; 33% of households
- Fibernet Door Co. Survey (as of Dec. '22): 472 responses 35% of households

1. Large unserved/underserved population (Fibernet DC)

- Unserved (No service): 47%
- Underserved (< 25/3 Mbps): 25%
- Served (> 25 / 3 mbps): 28%



2. Actual Service ≠ Advertised Service

- Consistent w/ findings from Finley Report (Pg.8)
- FibernetDoorCounty Survey: Sevastopol, as of Dec. 2022

ISP (survey#)	Std. Offering	Down** (mbps)	Up** (mbps)
Charter (99)	300 / 10	98.6	10.7
DCB (81)	8 / 2.5	6.4	2.5
Viasat (20)	50-75 Down	37.1	4.2
HughesNet (16)	25/3	11.8	3.2

* Based on WI-PSC Broadband Map; an estimated 53% of Sevastopol locations are unserved/underserved

** Median values

3. Broadband is essential for managing daily activities

- No Service
 - *"Currently we can't get any internet besides phones/hotspot. My family would have done much better with virtual school had we had internet options."*
 - *"Broadband internet is important for emailing, conducting transactions and entertainment."*
 - *"I don't have it now. It would save on the going over the data limit on our cell plan."*
 - *"I would be able to do my job from home."*
 - *"Most services are now using the internet for access."*
 - *"Rely on smart phone only & the connection can be quite poor. Have to stand by the right window during the right time of day - & then internet connection sort-of works. But it is generally slow and glitchy."*
- Fixed Wireless / Satellite
 - *"Not able to stream; bad weather affects performance"*
 - *"Sometimes need to go into Sturgeon Bay for better internet service"*
 - *"Frustrating. Satellite has download limits. Cannot stream. Slow. Cannot access movies or even many You Tube videos."*
- Cable
 - *"Speed is worse during tourist season"*
 - *"Service is good, but speed vs cost is poorer than service I had in IL"*
 - *"Prices keep increasing, Service is OK but not always."*
 - *"We use the internet service daily, it works well for us."*



ISP Selection Criteria

1. Is the entire town covered?



- Coverage for the entire town
- Address access for low-income residents
- Include seasonal residences
- Support Town Infrastructure (Hall, Parks, Dock)

2. What's the project cost, i.e., minimize \$ impact to residents?



- Overall Project Cost
- Impact on Residents (i.e., tax levy)
- Out-of-pocket costs for installation
- Competitive subscription rates

3. Is the solution "Future-proof"?



- Technology consistent w/ Finley Eng. Study
- Reliability of Design, e.g., bury vs. aerial
- Ability to enable future technology solutions for the town or county

4. Is ISP a viable partner?



- Operational capability; business viability
- Customer support & education services
- Grant writing / win-rate
- Fit with operating in a rural community



Top Two ISP Candidates

1. Is the entire town covered?



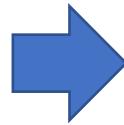
BERTRAM
INTERNET



bugtussel



2. What's the project cost, i.e.,
minimize \$ impact to residents?



3. Is the solution "Future-proof"?



4. Is ISP a viable partner?



Assessment of Bug Tussel

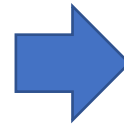


1. Is the entire town covered?



- ✓ Coverage of the entire town
- ✓ Support for all town facilities
- ✓ Offers programs for low-income households
- ✓ Proposes to start work mid-2023

2. What's the project cost, i.e., minimize \$ impact to residents?



- ✓ Favorable overall project cost: \$6.82M (includes design)
- ✓ Proposes bond funding approach: **No tax levy**
- ✓ Competitive Rates: 300/300 mbps rates @ \$62/mon

3. Is the solution "Future-proof"?



- ✓ Fiber-to-the-Premises design
- ✓ Additional fibers for future town use
- ✓ All fiber buried: increased reliability
- ✓ Multi-duct-conduit install enables future collaboration

4. Is ISP a viable partner?



- ✓ Rural-focused broadband provider since 2003
- ✓ Top tier supplier for ATT (install/service wireless infra.)
- ✓ Fiber & Fixed-Wireless projects in 14 WI counties
- ✓ "Bug Tussel University" Customer Education
- ✓ High Grant win-rate w/ WI-PSC: 20 awards in last 3 yrs



What's the Bug Tussel Offering for Residents?

Subscription Rates *

Speed (Down/Up)	Residential Price	Business Price
300/300 mbps	\$62 / mon	\$124/mon
500/500 mbps	\$82 / mon	\$164/mon
1 / 1 gbps	\$100 / mon	\$200/mon

Affordable Connectivity Program: Participating Provider

- Eligible residents receive \$30/mon towards their internet subscription. For example; 300/300 offering would become \$32/mon.

Seasonal / Vacation Hold *

- Option 1: Temporarily pause service for \$20/mon
- Option 2: Reduced fiber optic internet service to 10 Mbps for \$35/mon

Installation Costs

- Customer supplies the router
- Cost to run fiber from distribution fiber at the road to the home:
 - First 200ft is free
 - \$2 per foot thereafter

How much could I save compared to my current internet provider if I switched to Bug Tussel? **

	BugTussel Fiber	Charter Internet	DC Broadband Gold	HughesNet Gen5	Viasat Silver 25	Starlink
Technology	XGS-PON Fiber-to-the-Premise	Hybrid Fiber Cable	Fixed Wireless	Satellite	Satellite	Satellite
Speed Down / Up (mbps)	300/300	300/10	12/5	25/3	25/3	50-250 / 10-20
Caps (mon)	N/A	N/A	N/A	30GB	120 GB	N/A
Monthly Price	\$62	\$79.99	\$74.95	\$74.99	\$199.99	\$110.00
Estimated Yearly Savings w/ Bug Tussel	-	\$215.88	\$155.40	\$155.88	\$1,655.88	\$576.00

Customer Support / Education

- Bug Tussel University provides educational programs to help manage the digital transition
- Green Bay Call Center (English, Spanish)

* All rates exclude applicable taxes and other charges. Visit bugtussel.com for more information.

** Estimated savings comparing monthly subscription rates and bond funding approach



Questions?



Next Steps

- January 26, 2023: the Communication and Technology Committee meets to review public hearing feedback
- February 20, 2023: the Communication and Technology Committee makes a formal recommendation to the Town Board at their regularly scheduled meeting
- REMINDER: If you haven't participated in the Broadband Survey, please visit the fibernetdoorcounty.org website:
 - [Door County Broadband Survey](#)
 - Don't have internet, please call 1-608-267-3595

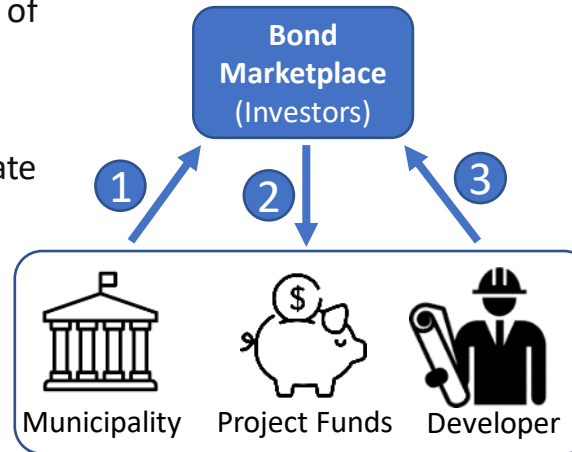


Appendix



What are Industrial revenue bonds?

- **Industrial revenue bonds (IRBs)** are a type of municipal bond, issued by a state or local government on behalf of a private company for a specific project. Examples: Building apartment housing in a city, or a hospital.
- An IRB is a variety of revenue bond, specifically a private activity bond.
- IRBs raise capital to fund the development of a manufacturing facility or equipment that will benefit the community at large; bondholders are repaid by the revenue the project generates.



How it works

- 1 Municipality issues bonds
 - Uses its borrowing power as a government entity
 - Ability/willingness to fund projects over a long-term horizon, e.g., 30 yrs
 - Attractive to investors since the government has the ability to repay debt (i.e., by raising taxes if need be)
- 2 Bond Proceeds used to fund project development
 - Project proceeds used to fund the build-out of the project
 - Funds dispersed in a transparent manner to cover specific project costs
- 3 Developer repays bondholders
 - Revenue from project used to pay principal + interest back to bondholders
 - Revenue examples: apartment rent, internet subscriptions

Using Bonds to Fund Broadband Projects

In 2012, Fond du Lac County partnered w/ Bug Tussel to issue bonds to finance rural broadband projects. Bug Tussel pays back bondholders via customer broadband subscription revenue and other revenues generated by the project.

Fond du Lac County has provided additional project funding in collaboration with counties that are partnering with Bug Tussel

- \$160MM raised in two bond issues
- 12 Rural Counties in Wisconsin as co-issuers

How it would work for Sevastopol

- 1 Sevastopol issues 30 year bonds
 - Bug Tussel works w/ Investment Banks & Bond Attorneys to set up bond structure
 - Project cost can also be reduced by submitting grant applications
- 2 Bond Proceeds used to fund the Bug Tussel project in Sevastopol
 - Funds dispersed in a transparent manner to cover specific project costs
 - Town has a lien on the project assets until bonds are paid off
- 3 Bug Tussel repays bondholders
 - Subscription Revenue used to pay principal + interest back to bondholders
 - Bug Tussel maintains a one year reserve fund to ensure payments are made
 - Bug Tussel parent (Hilbert Communications) is backstop to ensure payment

What if the Town Funded the Program via Tax-Levy?

Project Costs	
Total Project Cost	\$ 6,824,980.00
ISP Share	\$0
County Share @ \$25 per dwelling	\$ 53,925.00
Total Town Cost	\$ 6,771,055.00
Grants	\$ -
Net Town Project Loan Amount	\$ 6,771,055.00

Project Financing Costs	
Total Principal	\$ 6,771,055.00
Total Interest	\$ 4,797,089.18
Total Program Cost (Principal + Interest)	\$ 11,568,144.18

Broadband Funding Tax Rate	
Annual Loan Payment	\$ 578,407.21
Sevastopol RE Valuation	\$ 993,171,800.00
Effective Tax Rate per \$1000	0.582383842

Annual Broadband Project Costs to Taxpayers		
Assessed Value	Annual Cost	Monthly Cost
\$100,000	\$58.24	\$4.85
\$200,000	\$116.48	\$9.71
\$300,000	\$174.72	\$14.56
\$400,000	\$232.95	\$19.41
\$500,000	\$291.19	\$24.27

This is a worst-case analysis of the taxpayer impacts for implementing the Bug Tussel project through a loan, instead of through bonding.

Assumptions

- Includes Door County contribution per dwelling.
- No grant applied for and received to reduce project cost
- No ISP project cost share
- Financing is a 20 year Loan from the State of Wisconsin Board of Commissioners of Public Lands, @5.75%

Effective Monthly Subscription Rate

- For a \$100,000 Home, based on equalized value, the effective monthly subscription would be \$66.85 for 300/300 mbps service, assuming a subscription price of \$62.00



What are the Options for TV & Landline w/ Fiber? *

Phone Example 1

Landline Phone

(Existing ATT wireline, estimated monthly cost: \$79/mon)

Use Personal Mobile Phone & WIFI

- Requires mobile phone w/ WIFI calling
- Requires a WIFI router
- Monthly Cost: \$0

Estimated monthly savings vs wireline plan: \$79

Phone Example 2

Install a Voice Over IP (VOIP) Phone

- Requires a VOIP-capable handset
- VOIP Phone Plan: ([Ooma](#), [Google Voice](#), [ATT](#), [Vonage](#))
- Monthly costs based on call features/coverage
- Monthly Cost: \$0 - \$35

Estimated monthly savings vs wireline plan: \$44 - \$79

TV Example 1

TV

(Direct TV Satellite, estimated monthly cost: \$155/mon)

- Local TV stations plus Cable Channel
- One-time cost: streaming electronics, e.g., Google Chromecast, Roku, Amazon Firestick, Apple TV: \$30-\$79
- TV w/ HDMI port and/or USB port
- Examples of Options: [DirectTV Stream](#), [YoutubeTV](#), [Hulu+LiveTV](#), [FuboTV](#). Monthly costs: \$65-&75

Estimated monthly savings vs DirectTV Satellite: \$66-\$76

TV Example 2

- Cable TV package without local TV

- One-time cost: streaming electronics, e.g., Google Chromecast, Roku, Amazon Firestick, Apple TV: \$30-\$79
- TV w/ HDMI port and/or USB port
- Examples of Options: SlingTV: Monthly costs: \$40-\$50

Estimated monthly savings vs DirectTV Satellite: \$105-\$115

Bundle: Ethernet

+ TV+ Phone

(Charter estimated monthly bundle cost: \$240)

Bundle Example 1

- Bug Tussel Fiber: \$62/month
- Ooma Residential Plan: \$10/month
- YoutubeTV: \$65/month
- Estimated total monthly cost: \$137

Estimated monthly savings vs Charter Bundle Package: \$105-\$115

** Note: all examples are illustrative of potential savings. Costs may vary substantially based on features, installation costs, or other fees of the existing and new plans.*

Is this project a good risk for Sevastopol?

Societal Impact:

The pandemic provided ample examples of the negative societal impacts of not having broadband internet available to residents, whether it's the ability to work from home, allow children to do their school work remotely, check-in in with family...there's a long list. Every resident has a story.

- [According to a UW study](#), Access to High-Speed internet is associated with faster rates of population growth, higher levels of educational attainment (percent of the population age 25 and over with at least some college education), higher 3rd-grade reading test scores, and lower levels of both the percent of population reporting poor or fair health and the number of poor mental health days.
- [In Wisconsin](#), there is a clear relationship between access to broadband and economic performance and overall community well-being.

Economic impact:

- There have been multiple studies that have identified the economic impact of high-speed broadband internet in terms of home prices or community economic impact.
- A [2014 UW-Whitewater Survey](#) identified \$1,425.74 increased spending annually for seasonal homeowners if they had highspeed internet
- Housing
 - A [2015 Wall Street Journal Article](#) cites a Carnegie Mellon / U of Michigan study that says a high-speed internet would increase the value of a \$175,000 home by \$5,437, or 3.1%. The same article identified a 2014 UW-Whitewater study that showed that high-speed internet could add \$11,815 (or 2.7%) to the value of a \$439,000 vacation house in Door County, Wis.

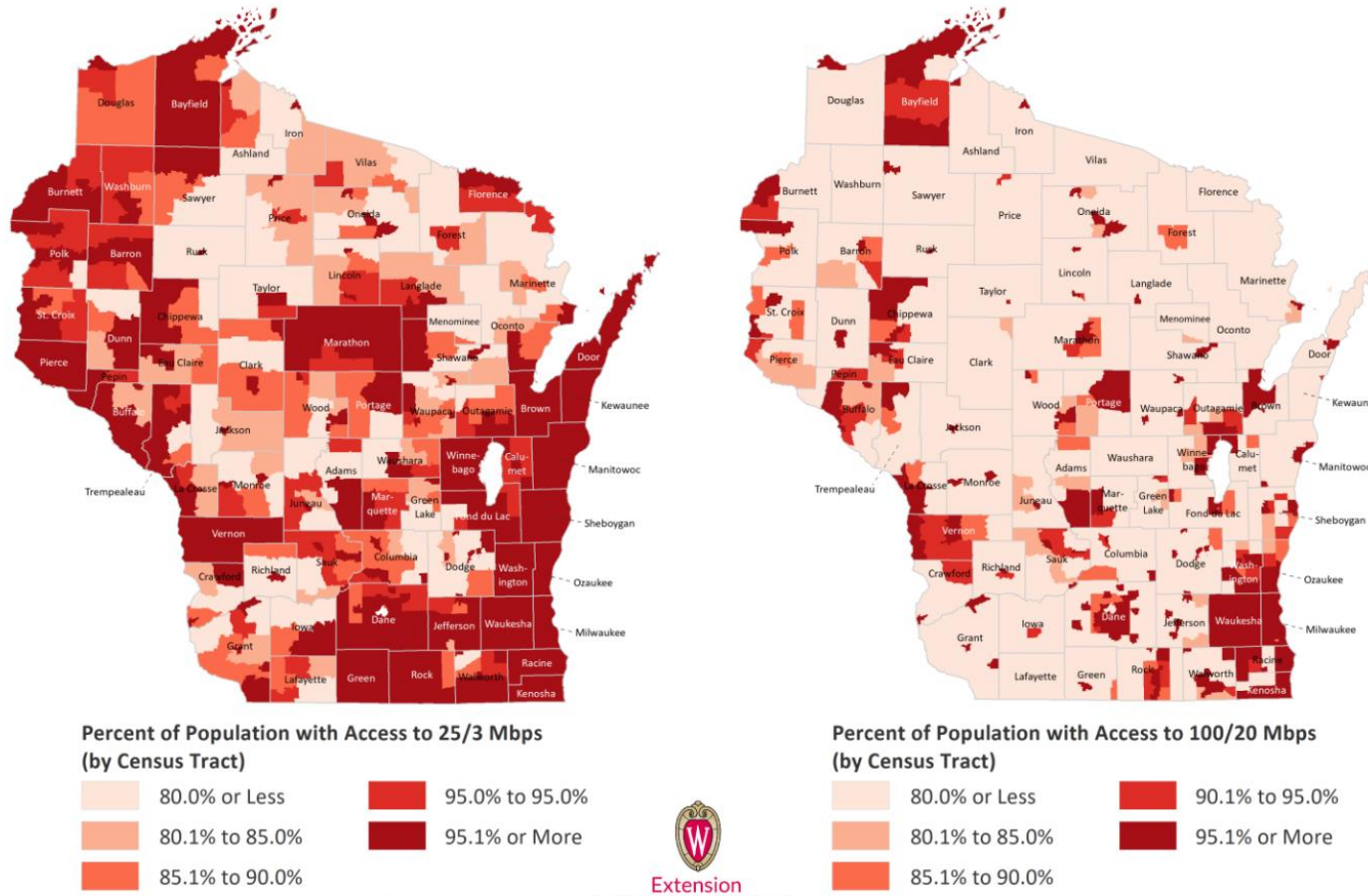


Future-proofing: Broadband Access in Wisconsin:

Map 2 - Share of Population with Access to Broadband at 25/3 Versus 100/20 Benchmarks

Percent of Population with Access to 25/3 Mbps

Percent of Population with Access to 100/20 Mbps

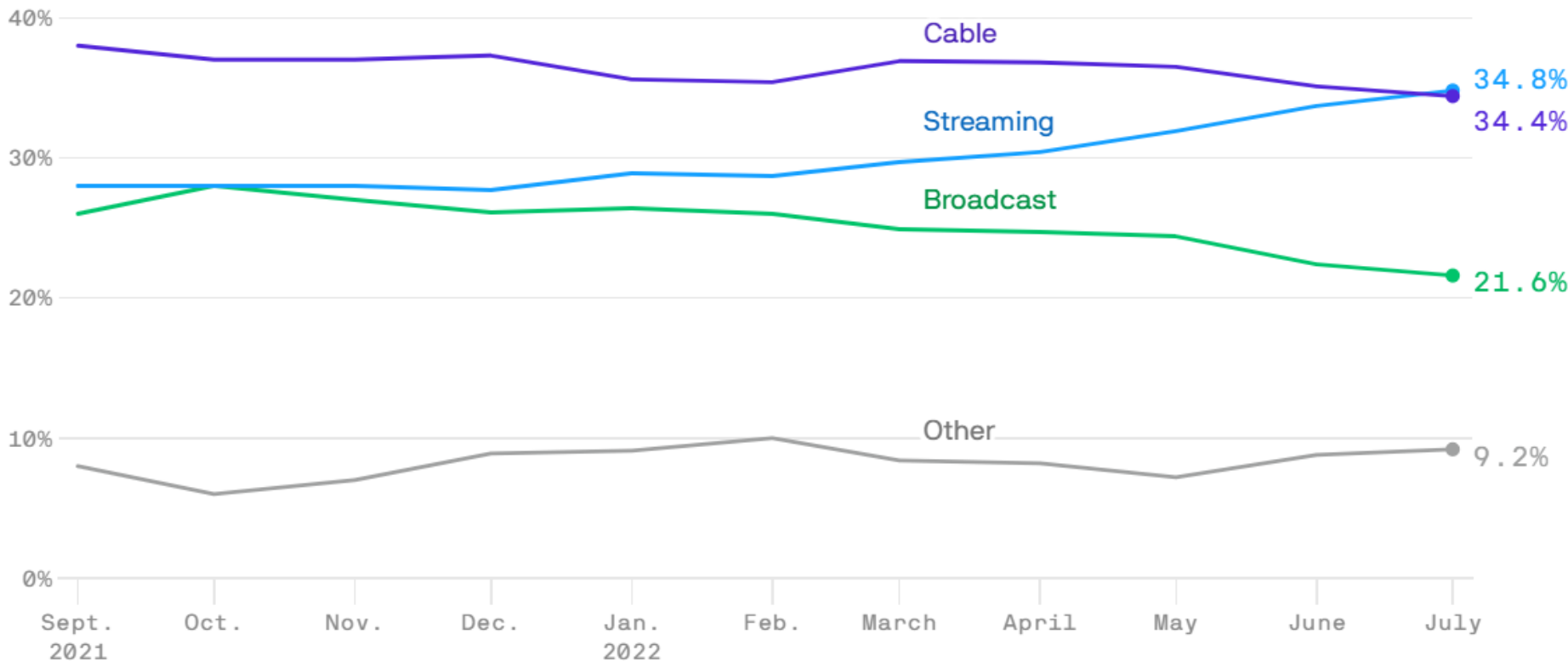


- Recently, [FCC Chair Jessica Rosenworcel](#) proposed that broadband should be defined by minimum download/upload speeds of 100/20 Mbps. While it is unknown whether these speeds will become official FCC thresholds, the 100/20 Mbps benchmarks already are being applied in some settings including the [Broadband Access, Equity and Deployment \(BEAD\) grant program](#), where a lack of access to 100/20 Mbps is used to define an “underserved” location.
- Source: [Broadband Disparities Apparent in Many Regions of Wisconsin, UW-Extension, Community Economic Development](#)

Future-proofing: Streaming surpasses Cable Usage

Share of total TV consumption, by type

For people ages 2+; Monthly, September 2021 to July 2022



Data: Nielsen; Chart: Axios Visuals

Source: [Streaming surpasses cable as top way to consume TV \(axios.com\)](https://www.axios.com/2022/07/27/streaming-surpasses-cable-as-top-way-to-consume-tv/)

