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# Office of Broadband Development

Annual Report

January 15, 2022

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## Introduction and 2021 Highlights

The Office of Broadband Development (OBD) is located in the Minnesota Department of Employment and Economic Development (DEED). The Office was created by statute in 2013 and just completed its eighth year of work on its mission to improve access to broadband service that meets the state's speed goals, serving the needs of anchor institutions, and expanding the skills and knowledge needed to use these services. Responsibilities of the OBD are statutorily outlined in Minn. Stat. § [116J.39](#). Border-to-border high speed Internet access is the goal throughout Minnesota. OBD connects communities, policy makers, providers, regional support organizations, and state and federal programs with each other and the resources they need to improve broadband access and use in Minnesota.

The need for ubiquitous broadband access continued at a critical level as the COVID-19 pandemic did not let up in 2021. Residents and businesses continued to rely on broadband connectivity to access telehealth services, remote learning, telework, engage in commerce, participate in government, and remain connected to family and friends.

2021 milestones for OBD included:

- In January 2021, awarded 39 projects totaling \$20,645,425 with FY21 state general revenue funds
- Certified 12 Telecommuter Forward! Communities
- Updated broadband availability maps in April and October, including more granular data from two large providers
- Provided broadband availability analysis to over 126 constituents
- Participated in state and national meetings and conferences to continue to learn about and/or promote the broadband resources available from state and federal sources
- Assisted in planning the virtual Blandin Conference, Building on Broadband Inspiring Progress
- Met with local groups to provide technical assistance on broadband issues, including the state grant program
- Engaged Minnesota Congressional staff and federal agencies in work to maximize impacts of federal broadband programs in Minnesota
- Provided administrative support to the Governor's Task Force on Broadband
- Supported policy makers on broadband discussions throughout the 2021 legislative session
- Updated the broadband availability by township and by county maps to continue to engage township supervisors and county commissioners in discussion of how to improve broadband availability to their residents

- Updated the broadband availability by school district map to continue to document the homework gap in Minnesota

## Border to Border Broadband Development Grant Program

### FY21 Grant Program Update

For FY21, the legislature appropriated \$20 million from state general revenue funds for the Border to Border Broadband Infrastructure grant program. Awards totaling \$20,645,425 were announced in January 2021 for 39 projects which will bring broadband service at speeds of at least 100Mbps download/20Mbps upload to approximately 7,000 locations in the state.

### FY22/FY23 Grant Program Information

For FY22 and FY23, the legislature appropriated \$70 million (\$35 million for each fiscal year) from the federal American Rescue Plan Act (ARPA) Sec. 604 Capital Projects Fund as the funding for the Border to Border Broadband Development Grant Program. The U.S. Department of Treasury (Treasury) is the federal agency administering that funding. Sec. 604 of ARPA, as signed into law in March 2021, provided that each state would receive baseline funding of \$100 million with an additional allocation based on a formula accounting for the state's total population, rural population, and low-income population in comparison to all other states. In August 2021, based on application of that formula, Treasury announced the amounts of each states' allocation, with Minnesota's full allocation at \$180,702,620.

On September 20, 2021, Treasury issued guidance as to how each state could apply for and receive its allocated funding. The guidance also included the types of expenditures that would be considered presumptively eligible uses of the funds: broadband infrastructure, digital connectivity technology projects (hotspot loan programs and Wi-Fi equipment) and multi-purpose community facility projects. States had to apply for the funding by December 27, 2021. Upon approval of its application, a state would enter a grant agreement with Treasury. Once a grant agreement is in place, states must submit a Grant Plan identifying its intended uses of the funds and then individual Program Plans for each proposed use of the funds. The Grant Plan and individual Program Plans must be submitted to Treasury no later than September 24, 2022.

The Department of Employment and Economic Development (DEED) submitted an application to Treasury on December 20, 2021 requesting Minnesota's full allocation of \$180,702,620. Once the grant agreement is executed, DEED will submit a Grant Plan and also a Program Plan to use \$70 million of the state's allocation for the Border to Border Broadband Infrastructure Grant Program. Infrastructure was identified by Treasury as a presumptively eligible use of the Sec. 604 funds, so the Office is not anticipating any issues with receiving approval from Treasury for this Program Plan. Once Treasury approves the Program Plan, OBD will launch the grant application window for the FY22 funding and then a subsequent FY23 application window. The latest information available on the Border to Border Broadband grant program is posted on the OBD website at: [Broadband Grant Program / Minnesota Department of Employment and Economic Development \(mn.gov\)](https://www.broadband.gov/minnesota)

Additional Program Plans will be submitted to Treasury to expend the remainder of Minnesota's full allocation, as the state makes decisions on how to expend those funds.

For reference, the below table summarizes the initial six rounds for the Border to Border Broadband Infrastructure Grant program, all rounds funded with state general fund appropriations:

**Table 1: Border to Border Broadband Infrastructure Grant Program six year summary**

Year	Applications Received	Applications Awarded	% of Applications Funded	Amount Requested	Amount Awarded	Number of Locations Served
2014	40	16	40%	\$44,215,644	\$18,670,337	6,333
2015	44	15	34%	\$29,063,436	\$11,008,366	4,098
2016	57	40	70%	\$54,228,825	\$29,040,896	16,708
2017	70	39	56%	\$50,348,055	\$26,475,556	12,202
2019*	80	30	37%	\$67,809,312	\$23,270,933	10,938
2020	64	39	61%	\$42,038,097	\$20,645,425	6,922

\*There was no grant round in 2018 as no appropriation was approved for FY19.

## Telecommuter Forward! Community Certification Program

The Office launched the Telecommuter Forward! Community Certification Program in December 2019 and certified 29 communities in the initial year. In 2021, an additional 12 communities were certified. Telecommuter Forward! certification recognizes communities that meet criteria for promoting telecommuting opportunities in partnership with broadband providers, economic development professionals, and OBD. Program guidance is provided by Minn. Stat. [§116J.9923](#).

## Minnesota Broadband Mapping Program

The OBD completed its seventh year of independently mapping broadband access and speeds across Minnesota in 2021. This work continues to be performed through a contract with Connected Nation, a non-profit organization that has considerable experience working with Minnesota broadband providers. The requirement to conduct these mapping activities was codified into law (Minn. Stat. [§ 116J.397](#)). It should be noted that funding for mapping activities comes from the administrative allowance of the Border to Border Grant program per Minn. Stat. [§ 116J.396](#) at subd. 2(3). With the grant program being funded with federal ARPA monies for at least the next two years, OBD will also need to secure federal approval to use those funds for broadband mapping in order to continue the mapping program.

The state broadband speed goals are articulated at Minn. Stat. § 237.012. They call for achieving border-to-border access by all homes and businesses in the state to a service that offers speeds of at least 25 Mbps download by 3 Mbps upload by the year 2022. A second goal to be achieved by the year 2026 seeks to have broadband service offering 100 Mbps download and 20 Mbps upload from at least one provider available to all homes and businesses.

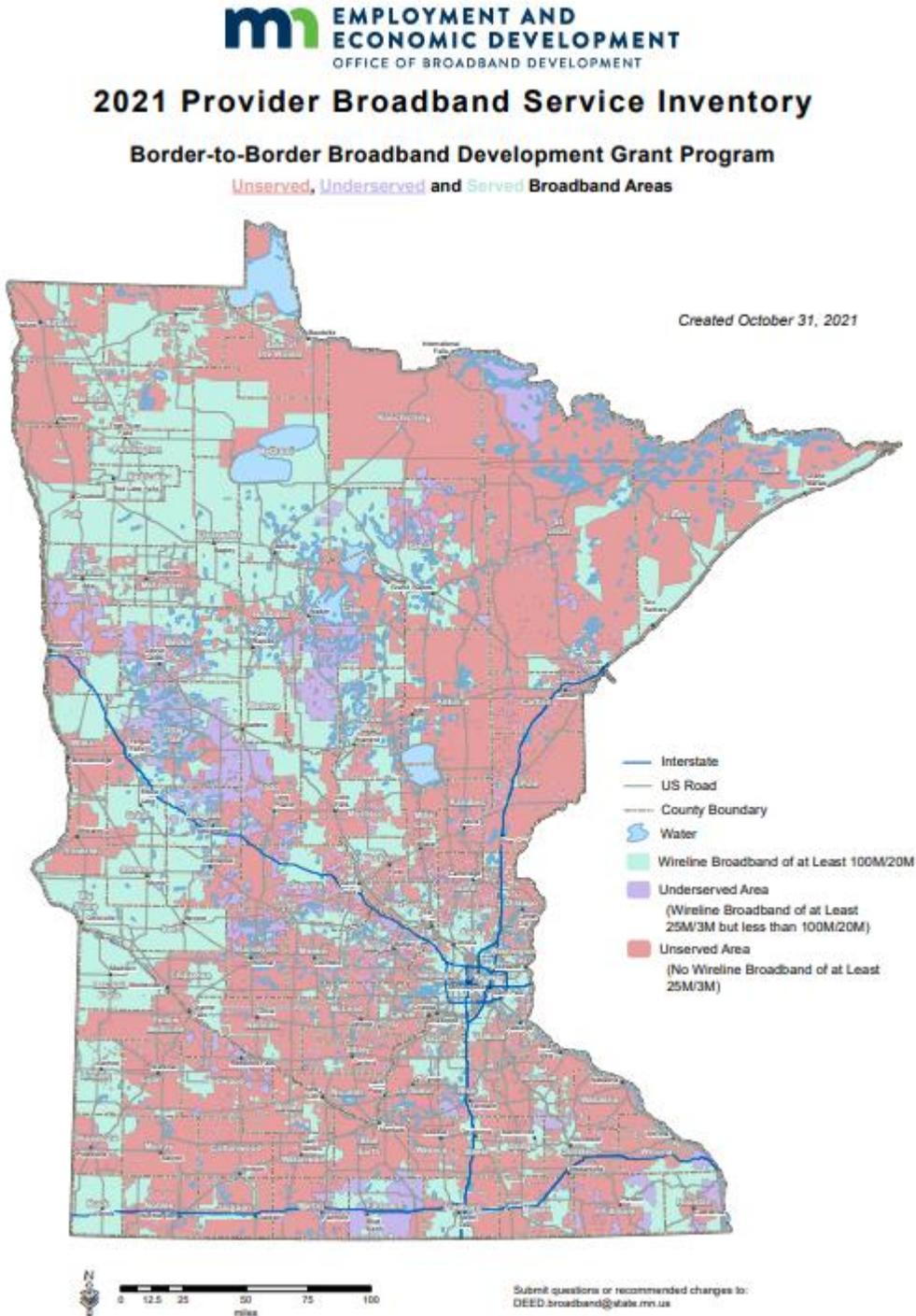
The most recent round of data collection shows that progress is being made toward these goals as measured from 2016 when the goals were adopted. Note that the most recent data shows a decline in availability at the 25 Mbps download and 3 Mbps upload speed and that is due to more granular data (address level) from one large provider. As noted in the discussion below regarding the FCC’s mapping initiative, data based on census blocks (the current FCC methodology) overstates broadband availability. The more granular data submitted in October 2021 corrects for the overstatement and better reflects what is actually available at the customer location.

**Table 2: Historic Overview of Broadband Availability, Statewide and Non-metro at 2022 and 2026 Broadband Speed Goals:**

	2016	2017	2018	2019	2020	2021
<b>Statewide 25/3</b>						
% of HH:	87.53% covered	88.11% covered	91.13% covered	92.79% covered	92.47% covered	91.79% covered
# of HH without:	260,000 HH w/o	248,000 HH w/o	185,000 HH w/o	150,000 HH w/o	157,000 HH w/o	171,000 HH w/o
<b>Non-metro 25/3</b>						
% of HH:	72.03% covered	73.45% covered	80.07% covered	83.92% covered	83.10% covered	81.99% covered
# of HH without:	251,000 HH w/o	238,000 HH w/o	179,000 HH w/o	144,000 HH w/o	152,000 HH w/o	161,000 HH w/o
<b>Statewide 100/20</b>						
% of HH:	68.53% covered	70.04% covered	74.11% covered	86.10% covered	87.75% covered	88.52% covered
# of HH without:	657,000 HH w/o	625,000 HH w/o	540,000 HH w/o	290,000 HH w/o	256,000 HH w/o	240,000 HH w/o
<b>Non-metro 100/20</b>						
% of HH	49.33% covered	52.88% covered	60.05% covered	68.74% covered	72.53% covered	75.05% covered
# of HH without	455,000 HH w/o	423,000 HH w/o	358,000 HH w/o	280,000 HH w/o	246,000 HH w/o	224,000 HH w/o

The data can also be viewed in map form. The below 2021 Broadband Service Inventory map depicts where broadband services are available at the statutory goal of 25 Mbps download by 3 Mbps upload (25/3) and 100 Mbps download by 20 Mbps upload (100/20). This map is also used for preliminary screening for the Border to Border Broadband Grant program. As state-funded grant projects are completed, the results are reflected on this map (for example, projects in Big Stone, Rock, and Swift Counties are large enough areas to be evident on the map).

Figure 1: 2021 Broadband Service Inventory Map



Above map also available on OBD website: [Infrastructure Grants Map](#)

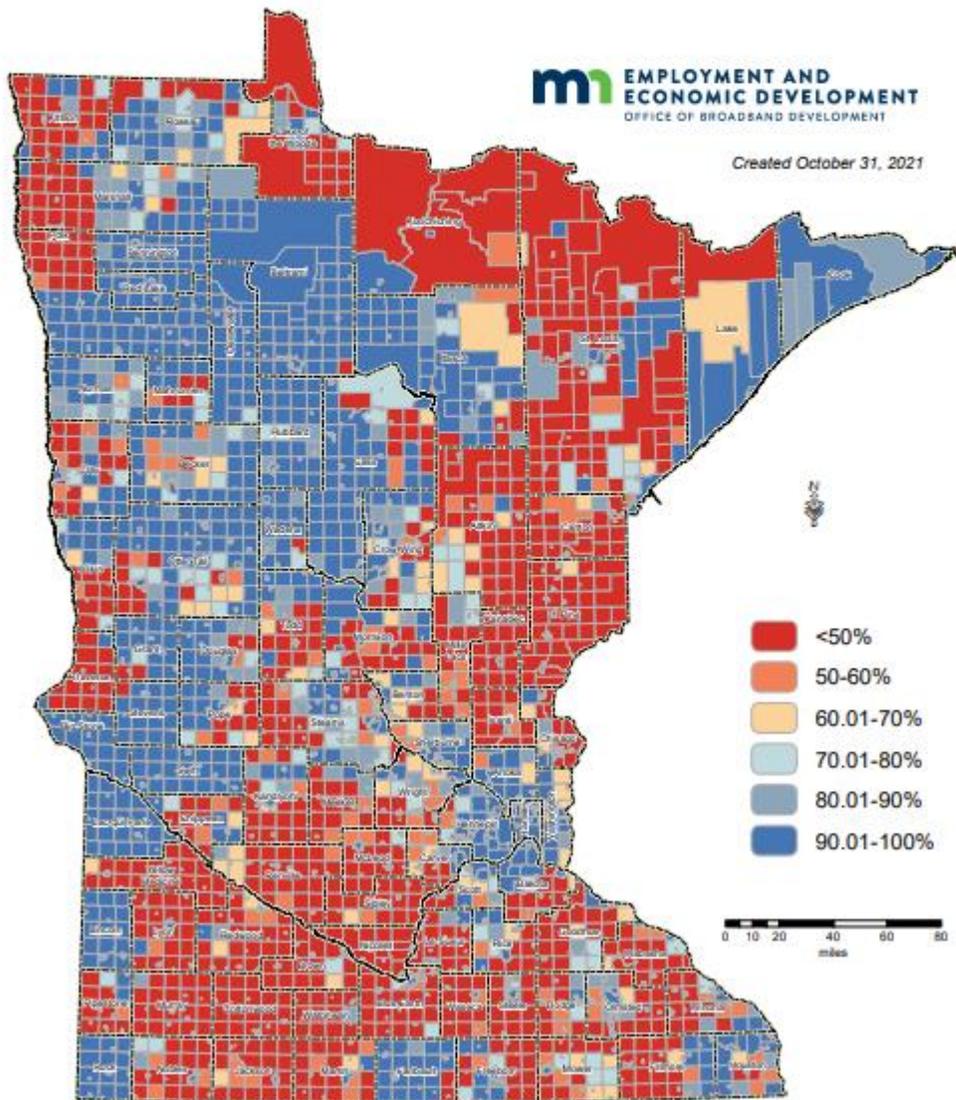
The below township heat maps were initially created in 2016 and have been updated with each subsequent data collection process. This configuration provides a clearer view of where the actual areas of unserved or underserved territory are located within each county. The first map shows broadband availability at the 25 Mbps

download and 3 Mbps upload (2022 goal) speeds and the second township maps shows availability at 100 Mbps download and 20 Mbps upload (2026 goal) speeds.

**Figure 2: Township Heat Map of Percent Households Served at 2022 Broadband Speed Goal**

### 2021 Broadband Availability in the State of Minnesota

Percentage of Households Served by Wireline  
Broadband Service by City/Township  
At Least 25 Mbps Download/3 Mbps Upload Speeds  
Statewide Availability: 91.79%, Rural: 81.99%

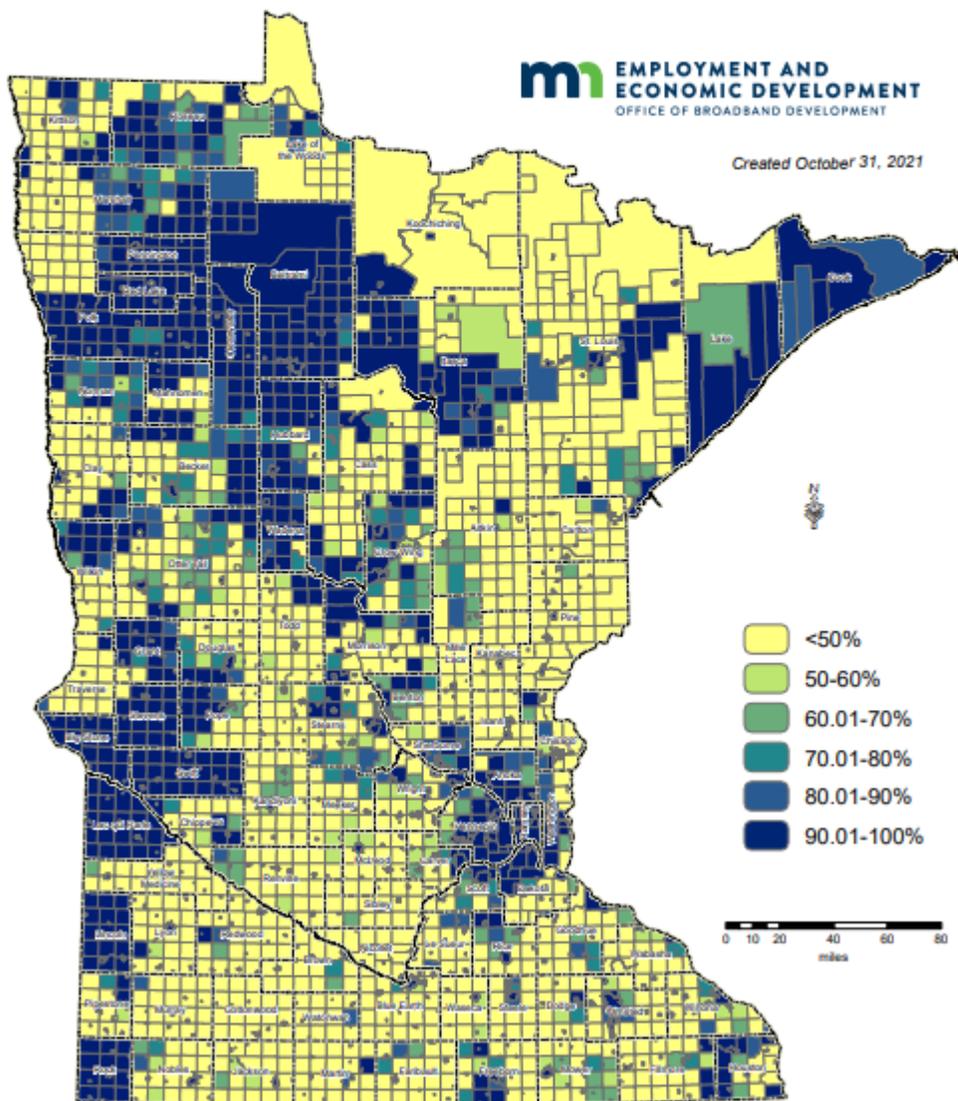


Above map also available on OBD website: [With speeds of at least 25Mbps download and 3Mbps upload - 2022 goal \(Township map\).](#)

Figure 3: Township Heat Map of Percent Households Served at 2026 Broadband Speed Goal

### 2021 Broadband Availability in the State of Minnesota

Percentage of Households Served by Wireline  
Broadband Service by City/Township  
At Least 100 Mbps Download/20 Mbps Upload Speeds  
Statewide Availability: 88.52%, Rural: 75.05%



Above map also available on OBD website: [With speeds of at least 100Mbps download and 20Mbps upload - 2026 goal \(Township map\).](#)

Additional maps and data are available on OBD's website at [Maps and Data / Minnesota Department of Employment and Economic Development \(mn.gov\)](#).

As of 2021, 88.52 percent of households had access to service that meets or exceeds the state's speed goal for 2026, which is 100 Mbps download by 20 Mbps upload from at least one provider. When looking at just non-metro areas, that number drops to 75.05 percent. While the broadband grant program has largely focused on achieving the 2022 goal, investments can only be funded under state law if they are scalable to deliver speeds at 100 Mbps download by 100 Mbps upload. The 100 Mbps symmetrical speed requirements are also included in the new federal funding guidelines. The increasing demand for upload speeds faster than 20 Mbps is also worth assessing since the 100 Mbps download/ 20 Mbps upload speed goals were first established in state law in 2016. With the pandemic driving more "production" to the home (telework, videoconferencing, distance learning, telehealth, uploading content/work product) which all require faster upload speeds, OBD will be focusing on awarding grants that enable the state to reach the state's 2026 broadband speed goals. The Office will continue to track this data and produce both a county and township level map of this information in 2022.

### **Next Steps - Mapping**

In 2022, OBD will be engaging in a new contract to continue the state's broadband mapping program (and assuming federal funding can be used to pay for the state mapping program). The contract will have an initial two-year term with the ability to renew in one year increments up to a total of five years. This will enable OBD to revise as necessary to ensure that the data provided meets the state's needs in light of federal funding from the ARPA Capital Projects Fund and the Infrastructure Investment and Jobs Act (IIJA) and incorporate data from the new broadband maps expected from the FCC.

At the federal level, the FCC is in the process of revising the manner in which it conducts broadband mapping as it was required to do in the Broadband Deployment Accuracy and Technology Availability (DATA) Act passed in March 2020 and subsequently funded in the December 2020 Consolidated Recovery Act. Given federal contracting requirements and the revised methodology that will result for broadband providers to submit data to the FCC, and the time needed to compile the data and review for accuracy, the new FCC maps are generally not expected to be available until late 2022 or the beginning of 2023 at the earliest. This date is important as the formula to distribute the broadband funding to states contained in the IIJA is tied to the availability of the new FCC broadband availability maps.

### **Connectivity for Community Anchor Institutions**

In 2022, OBD will be engaging in a new contract to continue the state's broadband mapping program (and assuming federal funding can be used to pay for the state mapping program). The contract will have an initial two-year term with the ability to renew in one year increments up to a total of five years. This will enable OBD to revise as necessary to ensure that the data provided meets the state's needs in light of federal funding from the ARPA Capital Projects Fund and the Infrastructure Investment and Jobs Act (IIJA) and incorporate data from the new broadband maps expected from the FCC.

### **K-12 Connectivity Update**

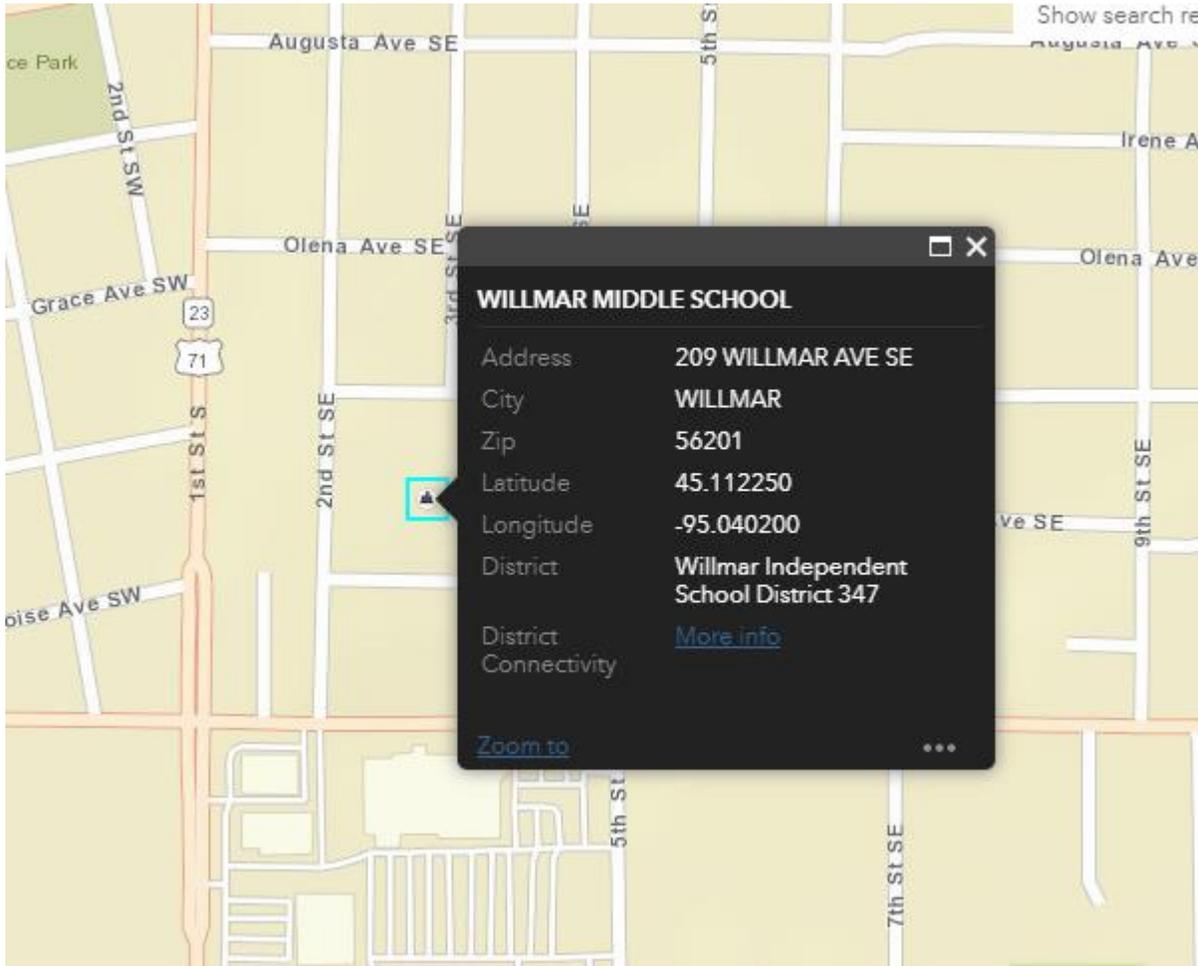
The COVID-19 pandemic continued to highlight the need for high-speed internet access and digital equity for students and teachers as distance learning continued. In 2021, the Office continued to lead the K-12 Connect Forward work group. Launched in 2016, the Minnesota K-12 Connect Forward Initiative is a joint partnership between the Minnesota Department of Education (MDE), the Department of Employment and Economic

Development (DEED), the national non-profit Connected Nation (which assumed data analysis and reporting responsibilities from EducationSuperHighway in 2020), EducationSuperHighway (which has shifted its focus to getting students and teachers connected where learning frequently occurs---in the home), and representatives from the Minnesota Education Technology Network, Minnesota School Board Administrators, Minnesota School Superintendents, Minnesota Rural Education Association, and the Minnesota Association of Charter Schools. The group meets monthly to share information and ideas to assist in addressing the need for all students and teachers to have access to scalable infrastructure, high-speed, affordable bandwidth, and ubiquitous access for distance learning. The education representative on the Governor’s Task Force on Broadband participates in the K-12 Connect Forward work group and relays information between the two groups.

The K-12 Connect Forward work group has frequently discussed the need for the state to fully fund Telecom Equity Aid (TEA), which helps overcome the geographic disparity in pricing that exists in providing broadband access to districts across the state. The work group has also discussed the need for more resources (dedicated staff at MDE) for school personnel to access for information on the federal E-Rate program, cybersecurity issues, instructional technology, and digital equity and digital literacy resources. Both of these measures are formal recommendations of the Governor’s Task Force on Broadband in its 2021 annual report.

Separate from the K-12 Connect Forward work group, OBD has worked to provide data that may be helpful to education personnel. First, maps showing the availability of household broadband by school district at both the 2022 and 2026 state speed goals are available on OBD’s website [[General Maps / Minnesota Department of Employment and Economic Development \(mn.gov\)](#)] and the interactive map cross references federal E-Rate data showing the connectivity available at individual school buildings when clicking on “More info.”

**Figure 4: Example of school building connectivity information available on OBD interactive map.**



For districts trying to ensure connectivity at the household level, OBD’s interactive map is also a resource that can identify broadband service providers reporting service availability at individual addresses. And, EducationSuperHighway’s Bridge to Broadband program will help school districts identify students who lack home broadband and whether facilities are available from local internet service providers. More on ESH’s program is available on their website: [K-12 Bridge to Broadband - EducationSuperHighway](#).

## **Other Community Anchor Institutions**

### **Library Update**

The Minnesota Department of Education captures connectivity data of libraries and reports that back out in an annual report. OBD reported in its 2020 annual report on the latest available statistics so directs readers interested in more recent data to check the MDE website for availability.

### **Public Safety**

The interactive broadband map maintained by the Office, which can be found here: [Minnesota Map](#) includes the locations of public safety facilities such as police and fire stations when you activate the “Anchor Institutions” layer on the map. Work remains to be done to devise a reliable means of gathering robust connectivity data for these anchor institutions.

Additionally, construction of the nationwide first responder network, known as FirstNet, continues. The federal government awarded the FirstNet contract to AT&T in 2017. Minnesota’s participation is coordinated by the Minnesota Department of Public Safety’s Emergency Communication Networks (ECN) division. The purpose of FirstNet is to build, operate, and maintain a high speed, nationwide wireless broadband network dedicated to public safety and operable across the country. As new towers are added to expand FirstNet coverage, those towers are also capable of hosting commercial service which helps to expand both cellular phone and broadband coverage. OBD works with both ECN and AT&T to share information regarding areas that could benefit from improved FirstNet and commercial broadband service.

### **Rural Healthcare**

The ongoing COVID-19 pandemic continues to amplify the need for broadband connectivity. The federal government, as one of its Universal Service programs, has funding to assist rural health care providers address their connectivity needs. The Rural Health Care Program, or RHC, receives funding and is administered by the Universal Service Administrative Company (USAC). Broadband services and network equipment can receive up to a 65 percent discount for eligible applicants.

As with public safety anchors, the Office includes the locations of hospitals on the interactive broadband map and continues to work on locating a reliable data source to map connectivity levels to individual healthcare facilities.

### **Next Steps and Recommendations – Other Community Anchor Institutions**

In awarding Border to Border Broadband grants, DEED requests that applicants provide information on whether community anchor institutions would be served as part of the grant funded area. Additional points are awarded if that is the case. DEED staff has also found a number of instances when an anchor institution was not part of the project, but because the project brought fiber closer to the location, it became affordable to extend fiber to the anchor institution not included in the grant project area.

## State and Federal Broadband Funding

### State Broadband Funding

While prior rounds of the Border to Border Broadband Grant program were funded with state general revenue funds, for FY22 and FY23, this program will be funded with federal funding and is thus included in the federal funding summary below.

### Federal Broadband Funding

Federal funding for broadband, while in some instances include longstanding programs, also has received recent emphasis as policy makers take note of the need for universal broadband availability and affordability brought to light by the pandemic. This section addresses the many federal funding sources and the federal agencies administering those funds. Federal appropriations for broadband have been included or allowed in laws passed to address the pandemic, including the Coronavirus Aid, Relief, and Economic Security (CARES) Act passed in March 2020; the Consolidated Recovery Act signed into law in December 2020; the American Recovery Plan Act (ARPA) approved in March 2021; and most recently the Infrastructure Investment and Jobs Act (IIJA) adopted in November 2021. Other federal funding programs have been in place for many years in agency budgets or as part of the Federal Communications Commission's universal service fund (revenues collected from telephone ratepayers, not taxpayers). Each federal funding source or program is discussed below.

### CARES Act Funding

Funding provided by the CARES Act to state and local governments was to be used to address circumstances created by the pandemic. A few local governments in Minnesota used this as an opportunity to award funding to broadband providers to construct broadband infrastructure to enable residents to negotiate the need for telework, distance learning, and telehealth. The initial deadline set for this funding to be expended was December 31, 2020 which resulted in approved projects being those that could be constructed quickly or small in size. While the deadline was later extended to December 31, 2021, most decisions on how to use the funding had already been made and could not be redirected to broadband. The Office is attempting to capture projects constructed with CARES Act funding through its mapping vendor's data collection efforts but will likely not be able to identify all such projects. It should also be noted that CARES Act funding received by the state was not used for any broadband infrastructure although some school districts did use funding that they received from the state to distribute cellular broadband hotspots or provide assistance to families struggling to pay their monthly internet service bills.

### Consolidated Recovery Act Programs

Under the Consolidated Recovery Act, the National Telecommunications and Information Administration of the U.S. Department of Commerce administered three broadband grant programs: Tribal Connectivity (\$980 million), Broadband Expansion to Underserved Communities (\$288 million), and Connecting Minority Communities (\$268 million). During 2021, NTIA solicited applications nationally and the Office provided information on these grant opportunities on its website under Financial Assistance: [Financial Assistance / Minnesota Department of Employment and Economic Development \(mn.gov\)](#). Several applicants from Minnesota submitted proposals. OBD will be monitoring these awards as they are announced and any awards for projects in Minnesota will be identified on the state broadband maps.

The Consolidated Recovery Act also provided funding to the FCC to administer two programs. First, the FCC implemented the Emergency Broadband Benefit (EBB), a temporary program to provide up to a \$50/month credit to participating providers for services provided to eligible households and a discount for broadband device purchases. The FCC initiated the program in May 2021 and availability ended in December 2021 as eligible households transition to the Affordable Connectivity Plan created in the Infrastructure Investment and Jobs Act (see below). In Minnesota, over 86,000 households were identified as having participated in the EBB program. The second program administered by the FCC is the Emergency Connectivity Fund (ECF) which provides funding to schools and libraries for tools and services that enable remote learning. The FCC has been distributing that funding via competitive grant rounds and to date Minnesota schools and libraries have been awarded approximately \$57.4 million in ECF funding.

### **American Rescue Plan Act State and Local Fiscal Recovery Funds**

The American Rescue Plan Act (ARPA) included broadband infrastructure as an allowed use for State and Local Fiscal Recovery Funds. To date, Minnesota has not awarded any State Fiscal Recovery Funds for broadband infrastructure. The state did receive an overall allocation of \$2.83 billion and approximately half remains unallocated. Decisions on how the remainder will be spent are likely to be made in the 2022 legislative session.

The Office is aware that several local units of government have or are considering using some of their Local Fiscal Recovery Funds for broadband infrastructure, some as independent projects and others as potential match for a state Border to Border Broadband grant application. For those projects that move forward independently, the Office will try to identify such construction on its maps as paid for with Local Fiscal Recovery Funds. For those projects that end up moving forward as part of a state Border to Border Broadband grant project, construction funded in part with Local Fiscal Recovery Funds can be readily captured.

### **American Rescue Plan Act Sec. 604 Capital Projects Fund:**

For FY22 and FY23, the state Border to Border Broadband Grant program will be funded with ARPA Sec. 604 Capital Projects Fund (CPF). A description of this funding is included above under FY22/FY23 Grant Program Information.

### **Infrastructure Investment and Jobs Act (IIJA)**

The Infrastructure Investment and Jobs Act includes \$65 billion in funding for broadband related expenditures which will be administered by three different federal agencies.

NTIA: For broadband infrastructure, each state will again receive a base amount of at least \$100 million which will increase based on the number of locations lacking a reliable broadband service of at least 25 Mbps download and 3 Mbps upload as determined by the new maps being prepared by the FCC. Additional detail on how those infrastructure funds can be accessed and expended will be provided in a Notice of Funding Opportunity that NTIA is expected to issue in May 2022. Additionally, the IIJA included \$2.75 billion for digital equity programs, \$2 billion for tribal connectivity and \$1 billion for middle mile broadband projects all administered by NTIA.

FCC: To help ensure that broadband is affordable, the IIJA included \$14.2 billion for the new Affordable Connectivity Program (ACP), which is to replace the temporary Emergency Broadband Benefit. The FCC is

working to stand up the ACP and eligible households will be transitioning to this new benefit program in early 2022. While the eligibility criteria to participate in ACP generally stayed the same as for the EBB, the monthly benefit under the new program was reduced to \$30/month (\$75/month for eligible households on tribal lands, the same as the EBB).

USDA: The IIJA also provided \$2 billion to the USDA for future rounds of the ReConnect program (see below).

## **Traditional Federal Programs for Broadband**

### **U.S. Department of Agriculture ReConnect Program**

The U.S. Department of Agriculture (USDA) opened its third ReConnect round on November 24, 2021 with applications due by February 22, 2022. The USDA announcement indicated that \$1.15 billion will be available for grants, grant/loans and loans in this round. In the prior two rounds, Minnesota applicants have been awarded three projects totaling approximately \$13.6 million in grants and loans. A fourth (and potentially fifth) round is also likely to be held in 2022 and/or 2023 with funding of \$2 billion appropriated in the Infrastructure Investment and Jobs Act for the ReConnect program. Broadband projects in Minnesota constructed with ReConnect funds are identified as such on the state broadband maps.

The USDA also conducts a Community Connect grant program for broadband infrastructure and a Telemedicine and Distance Learning (DLT) grant program that provides funding generally used for equipment. Information on both programs is included on the Financial Assistance section of the OBD website. The Community Connect program did not offer a grant application window in 2021. Prior recipients of Community Connect grants in Minnesota include Northeast Service Cooperative, Fond du Lac Band of Ojibwe, Mille Lacs Energy Cooperative and Consolidated Telephone Company.

### **FCC CAF and RDOF**

The Federal Communications Commission (FCC) continues the transition of its Universal Service Fund from the Connect America Fund II (CAFII) to its Rural Digital Opportunity Fund (RDOF). The CAFII program subsidies concluded at the end of 2021 (which was a one-year extension of the original timeline). The RDOF auction was held in November/December 2020 with auction winners announced in late 2020 and follow up filings due at the FCC in 2021. The FCC has announced the final award of funding to some, but not all, of the winning bidders. More announcements are expected in 2022, which will also start the clock on the six-year time frame for construction. The following chart shows the auction winners and dollar amounts awarded in the RDOF auction. The entities highlighted in green have received final approval for funding at the time of this report.

Bidder	Support	Locations
AMG	\$3,736,316	1,408
Arrowhead Elec. Coop.	\$18,462,273	4,879
CenturyLink	\$15,646,093	3,265
Consolidated Comm.	\$11,126	12
Consolidated Tel. Co. (CTC)	\$2,040,279	979
Consortium of AEG and Heron	\$6,709,428	1,150
Farmers Mutual Tel. Co.	\$759,822	332
Federated Tel. Coop.	\$537,399	248
Fond du Lac Comm.	\$1,046,123	728
Gardonville Coop. Tel.	\$63,903	24
Great Plains Consortium	\$81,701	402
Halstad Tel. Co./Garden Valley	\$3,118,056	603
LTD Broadband LLC	\$311,877,936	102,005
Midcontinent Comm.	\$4,453,804	6,058
Paul Bunyan Rural Tel. Coop.	\$16,307,892	5,088
Roseau Electric Coop.	\$1,228,494	266
Savage Comm. (SCI)	\$6,090,479	4,541
SpaceX	\$8,424,808	7,529
Wikstrom Tel. Co.	\$983,637	228
Windstream	\$6,548,964	2,899
Winnebago Coop. Tel.	\$20,542	178
Wisper-CABO 904 Consortium	\$1,671	19

Green=Long Form Approved

Pink=Default

The interactive map available on OBD's website (<https://mn.gov/deed/programs-services/broadband/maps/general-maps.jsp>) includes the RDOF funded areas as an overlay.

Other FCC funding (Alternative Connect America Cost Model or ACAM and Broadband Loop Support) for the smaller incumbent providers in the state continues to aid these companies as they upgrade broadband service in their historic telephone exchange areas. These areas can also be seen as an overlay on the interactive map.

## Economic Impact of Broadband

In addition to the examples from the Border to Border Broadband Infrastructure grant projects, which positively impact individual households and businesses as they are connected, national studies and reports show the benefits of and/or need for high speed broadband access.

- The Benton Institute for Broadband & Society issued a report in September 2021 that describes how farmers need connectivity in the farm house and office, in the field, and in the community to enable sustainable, precision agriculture to meet the world's rising demand for food. (<https://www.benton.org/sites/default/files/FutureAmericanFarming.pdf>)
- The Federal Reserve Bank of Richmond, in December 2020, issued a paper describing the research showing positive impacts of high-speed broadband service on increased job and population growth, new business formation, home values, lower unemployment, and telemedicine and distance learning.

[https://www.richmondfed.org/publications/community\\_development/community\\_scope/2020/community\\_scope\\_vol8\\_no1](https://www.richmondfed.org/publications/community_development/community_scope/2020/community_scope_vol8_no1)

- A Pew Research Center December 2021 study found that 16 percent of Americans have earned money through an online gig platform. Six out of ten recent or current gig workers say that the money earned has been essential or important to them for meeting basic needs. [The State of Gig Work in 2021 | Pew Research Center](#)
- A spring 2021 report by the Consortium for School Networking (CoSN) discussed the impact of home internet for distance learning during the pandemic and noted that even when students return to the classroom, adequate home internet will be needed to ensure an equitable education experience. <https://drive.google.com/file/d/1ZU9gi6PVXE8Co8rMVr-8x3PvCeYV4OhR/view>

## Digital Equity

Digital Equity is defined by the National Digital Inclusion Alliance as “a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy. Digital Equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services.”

In mid-2021, OBD invited representatives from several state agencies to begin to discuss and inventory digital equity activities occurring at the agency level. This work will continue and expand in the coming years, initially with an allocation of funding from the U.S. Economic Development Administration to hire an individual to work with this interagency Digital Equity Workgroup and other stakeholders to develop a Digital Equity Plan for Minnesota. Additionally, this funding will be used to create a web-based tool to promote and share information regarding the availability of both public and private resources that promote digital inclusion and digital literacy.

With significant additional federal funding for broadband infrastructure and digital inclusion initiatives expected for the state through the Infrastructure Investment and Jobs Act, the goal is to develop a digital equity strategy for Minnesota, and to foster collaboration and information sharing regarding digital equity initiatives/resources among state agencies and our stakeholders. As the central broadband planning body of the state of Minnesota, OBD is tasked with encouraging, fostering, developing, and improving broadband access within the state in order to: drive job creation, promote innovation, and expand markets for Minnesota businesses; serve the ongoing and growing needs of Minnesota's education systems, health care system, public safety system, industries and businesses, governmental operations, and citizens; and to improve accessibility for underserved communities and populations. This funding will enable OBD to obtain the resources necessary to help us achieve these goals and be an important part of the work of the Office going forward.

## Next Steps and Recommendations

This year, we announced FY20 Border to Border Broadband Infrastructure grants totaling \$20,645,425 for 39 new projects. Of the 179 total projects awarded over the initial six rounds of the grant program, 124 of those projects (including three awarded in early 2021) are fully constructed and providing broadband service to homes, farms, businesses and community anchor institutions in Minnesota. While we were unable to open a new grant application window in 2021, the state legislature did appropriate \$70 million in federal funding from the American Rescue Plan Act (ARPA) Sec. 604 Capital Projects Fund for FY22 and FY23. A grant application announcement will be made in 2022 as soon as the Office has all the necessary information and approvals from

the federal government to move forward to announce the availability of that FY22 funding. A separate grant round for the FY23 funding will follow. The legislature will also be making decisions on how to use the remaining allocation in the Capital Projects Fund as well as the possibility of using some State Fiscal Recovery Funds from ARPA and/or state general revenue funds for broadband infrastructure.

In 2022, the state will also learn more about funding for broadband and digital equity that will be made available in the Infrastructure Investment and Jobs Act.

All told, the funding for broadband and for digital equity will require engagement by the Office and stakeholders to ensure that the resources are put to the best and most efficient use to meet the state's broadband speed goals and fulfill the definition of digital equity for all Minnesotans.