



Connect Michigan

Broadband Mapping Initiative: Provider Briefing

Michigan Public Service Commission Offices & via
Teleconference
Lansing, MI
January 8, 2010



Welcome and Introductions

Brian Mefford & Cassie Ruhlman



Introductions

Brian Mefford

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Wes Kerr

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Welcome & Introductions

Connected Nation's Staff:

- **Tom Ferree** – Chief Operations Officer
- **Brent Legg** – Director, Stakeholder Relations & Development
- **Cassie Ruhlman** – Stakeholder Relations Manager, Michigan
- **Ernie Wood** – Executive Director, Strategic Project Office
- **Chip Spann** – Director, Engineering & Technical Services
- **Terry Holmes** – Senior Technology Assessment Consultant
- **Wes Kerr** – Senior Manager, GIS Services
- **Ashley Littell** – Manager, GIS Services
- **Jessica Ditto** – Communications Director
- **Eric Mills** – General Counsel



Who We Are and Why We Exist

Connect Michigan is a subsidiary non-profit of Connected Nation, a national 501(c)(3) organization with primary offices in Washington, D.C. and Bowling Green, KY. Connected Nation's mission is to generate and support economic development by:

- 1) Expanding broadband availability and
- 2) Increasing broadband adoption rates

Connect Michigan has partnered with the **Michigan Public Service Commission** to launch a broadband mapping project in Michigan that will be funded by NTIA's State Broadband Data & Development Grant Program.

Connect Michigan's goal is to form strong working relationships with all broadband providers within the state to create and maintain Michigan's first detailed maps of broadband coverage and accurately pinpoint any remaining gaps in broadband availability.



The State Broadband Data and Development Grant Program (SBDD):

Broadband Mapping

- The federal Broadband Data Improvement Act (P.L 110-385) created the “State Broadband Data & Development Grant Program” (SBDD) that was funded by Congress in the American Recovery and Reinvestment Act at \$240 million.
- The SBDD Grant Program provides funds to states to create and maintain broadband maps for a period of at least two years (up to five years, pending funding availability)
- The Michigan PSC chose to partner with Connected Nation to create the Connect Michigan mapping and planning initiative.
- On August 13, 2009 Connected Nation was named by Governor Jennifer Granholm as Michigan’s “single designated entity” to received SBDD grant funds.
- An application was filed with NTIA on August 14th.
- A grant award decision from NTIA was expected by September 30.
- A grant award announcement was made for Michigan on December 22.
- All 50 states, 5 U.S. territories, and the District of Columbia have applied for SBDD grants. NTIA has awarded 41 grants to date. The last 15 awards are expected in the coming weeks.



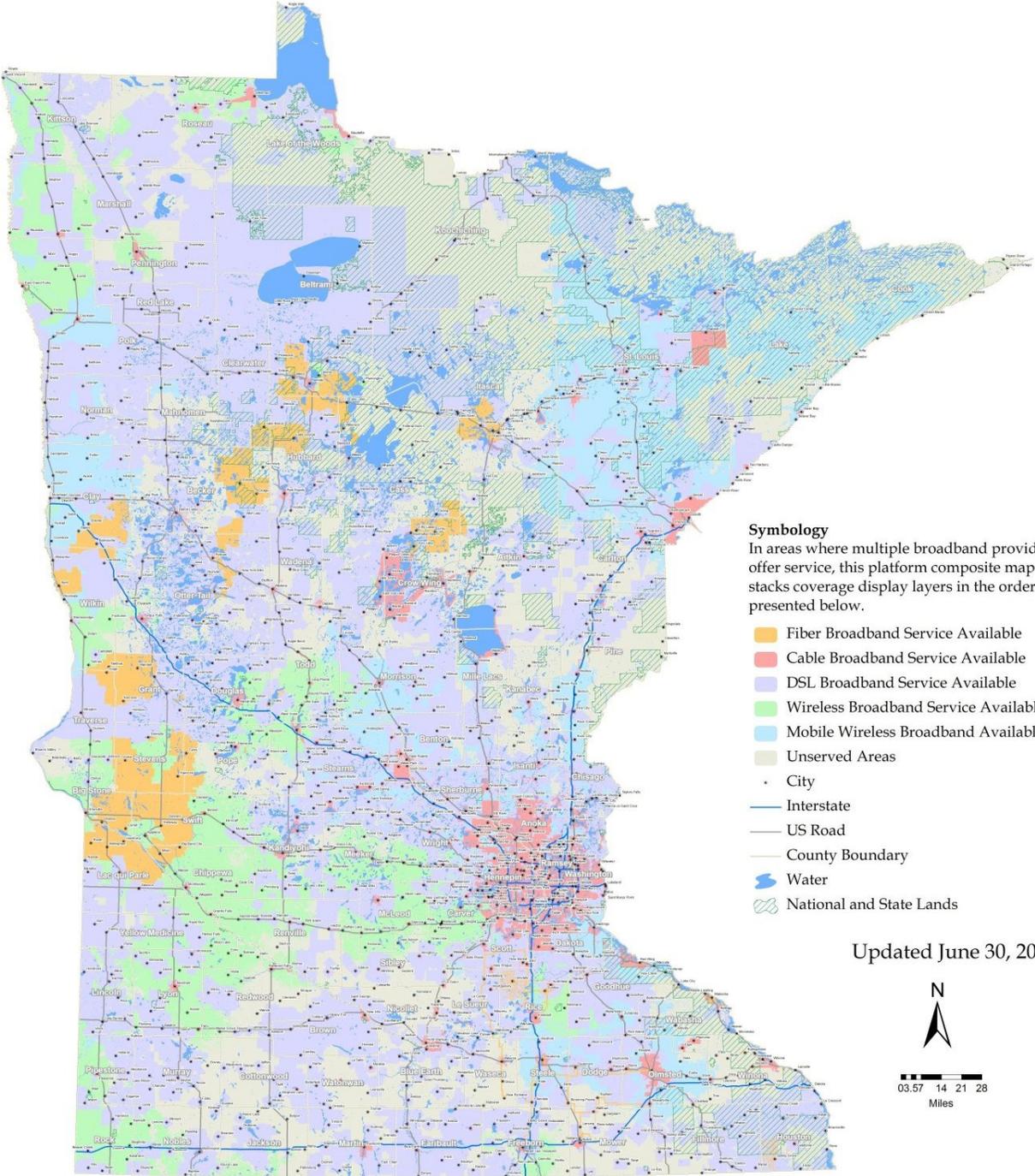
Connected Nation Mapping Examples

Wes Kerr

Minnesota's Broadband Service Inventory

as of June 30, 2009

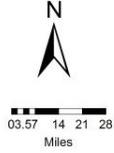
110 Providers Represented



Symbology
 In areas where multiple broadband providers offer service, this platform composite map stacks coverage display layers in the order presented below.

- Fiber Broadband Service Available
- Cable Broadband Service Available
- DSL Broadband Service Available
- Wireless Broadband Service Available
- Mobile Wireless Broadband Available*
- Unserved Areas
- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands

Updated June 30, 2009



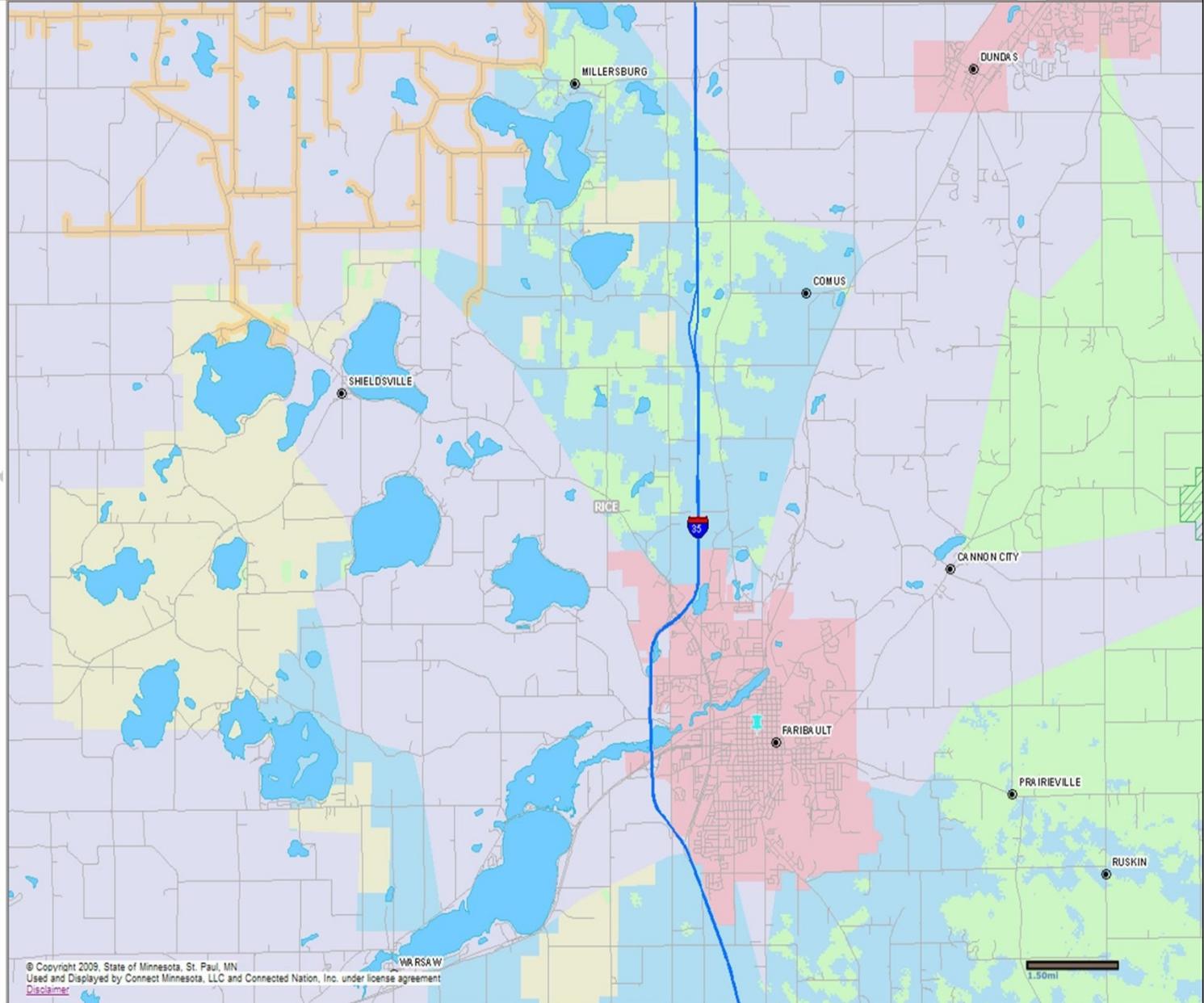


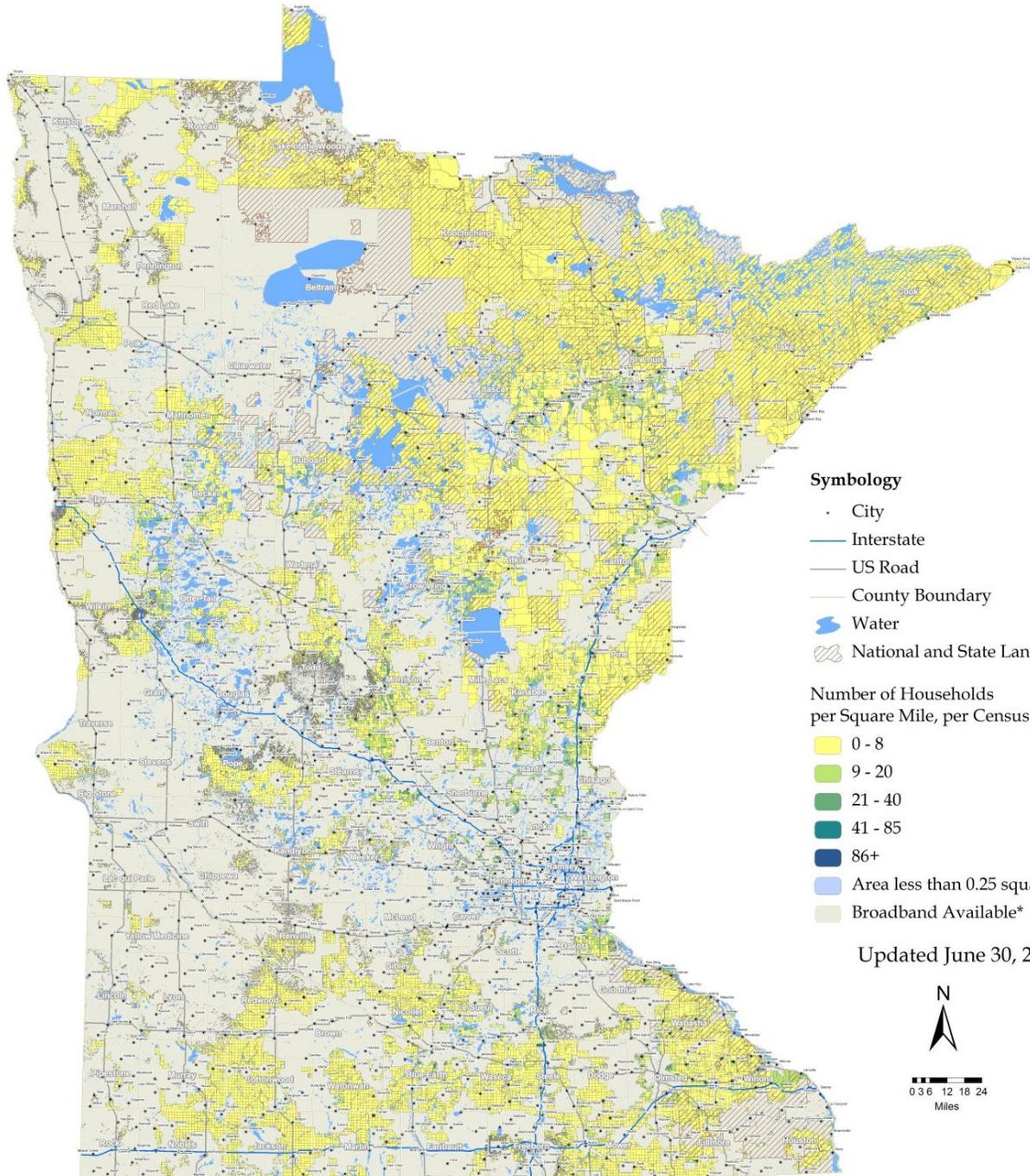
Results

- 400 7th Street NW, Faribault, MN, 55021 (3)
- 400 7TH ST NW, MN, 55021

Legend

- MNBroadband
 - County Seat
 - City
 - Municipal Boundary
 - Interstate
 - US Road
 - Local Road
 - County Boundary
 - National and State Lands
 - Lake
 - Minnesota Broadband
 - Fiber Broadband Available
 - Cable Broadband Available
 - DSL Broadband Available
 - Wireless Broadband Available
 - Mobile Wireless Broadband Available*
 - Average Residential Download Speed
 - 1st Generation Data (200 kbps to 768)
 - Basic Broadband Tier 1 (768 kbps to 1)
 - Broadband Tier 2 (1.5 Mbps to 3 Mbps)
 - Broadband Tier 3 (3 Mbps to 6 Mbps)
 - Broadband Tier 4 (6 Mbps to 10 Mbps)
 - Broadband Tier 5 (10 Mbps to 25 Mbps)
 - Broadband Tier 6 (25 Mbps to 100 Mb)
 - Broadband Tier 7 (Greater than 100 M)
 - Average Residential Upload Speed
 - 1st Generation Data (200 kbps to 768)
 - Basic Broadband Tier 1 (768 kbps to 1)
 - Broadband Tier 2 (1.5 Mbps to 3 Mbps)
 - Broadband Tier 3 (3 Mbps to 6 Mbps)
 - Broadband Tier 4 (6 Mbps to 10 Mbps)
 - Broadband Tier 5 (10 Mbps to 25 Mbps)
 - Broadband Tier 6 (25 Mbps to 100 Mb)
 - Broadband Tier 7 (Greater than 100 M)
 - Aerial Imagery - MNDNR Data Deli
 - Farm Services Administration (FSA) C
 - State of Minnesota





Household Density of Unserved Areas in Minnesota by Census Block

Symbology

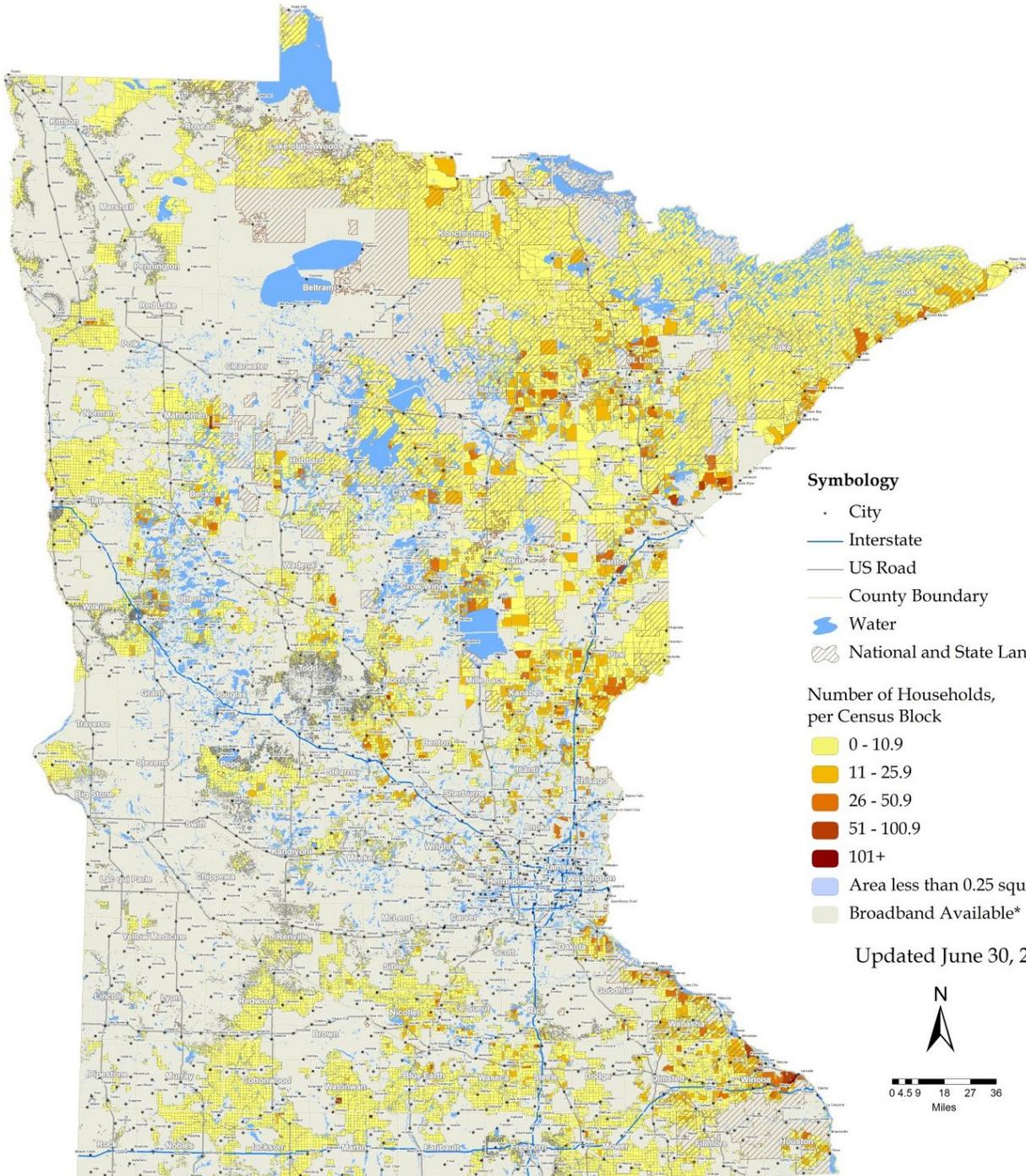
- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands

Number of Households per Square Mile, per Census Block

- 0 - 8
- 9 - 20
- 21 - 40
- 41 - 85
- 86+
- Area less than 0.25 square mile
- Broadband Available*

Updated June 30, 2009





Number of Households in Minnesota's Unserved Areas by Census Block

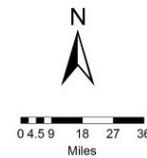
Symbology

- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands

Number of Households, per Census Block

- 0 - 10.9
- 11 - 25.9
- 26 - 50.9
- 51 - 100.9
- 101+
- Area less than 0.25 square mile
- Broadband Available*

Updated June 30, 2009





Overview of Mapping Efforts for Connect Michigan

Chip Spann & Terry Holmes



Broadband Mapping in Michigan: Next Steps

- 1) Connect Michigan project team members will make direct contact with each identified broadband provider within the state.**
- 2) Connected Nation legal staff will facilitate a discussion on the signing of a non-disclosure agreement with each provider, using a sample NDA (available at www.connectmi.org under the “broadband providers” tab) as a starting point for those discussions.**
- 3) Once a NDA is agreed upon and is executed, Connect Michigan project team members will work with each provider to transfer data to us in a usable format.**
- 4) Connected Nation’s GIS division will process the transferred data and create a visual depiction of broadband service availability for each provider. Each provider will have an opportunity to approve the generated map before the information is applied to the aggregated statewide map.**
- 5) Once the map is complete, it will be made available to the public via an interactive address-searchable online application called “BroadbandStat” at www.connectmi.org**

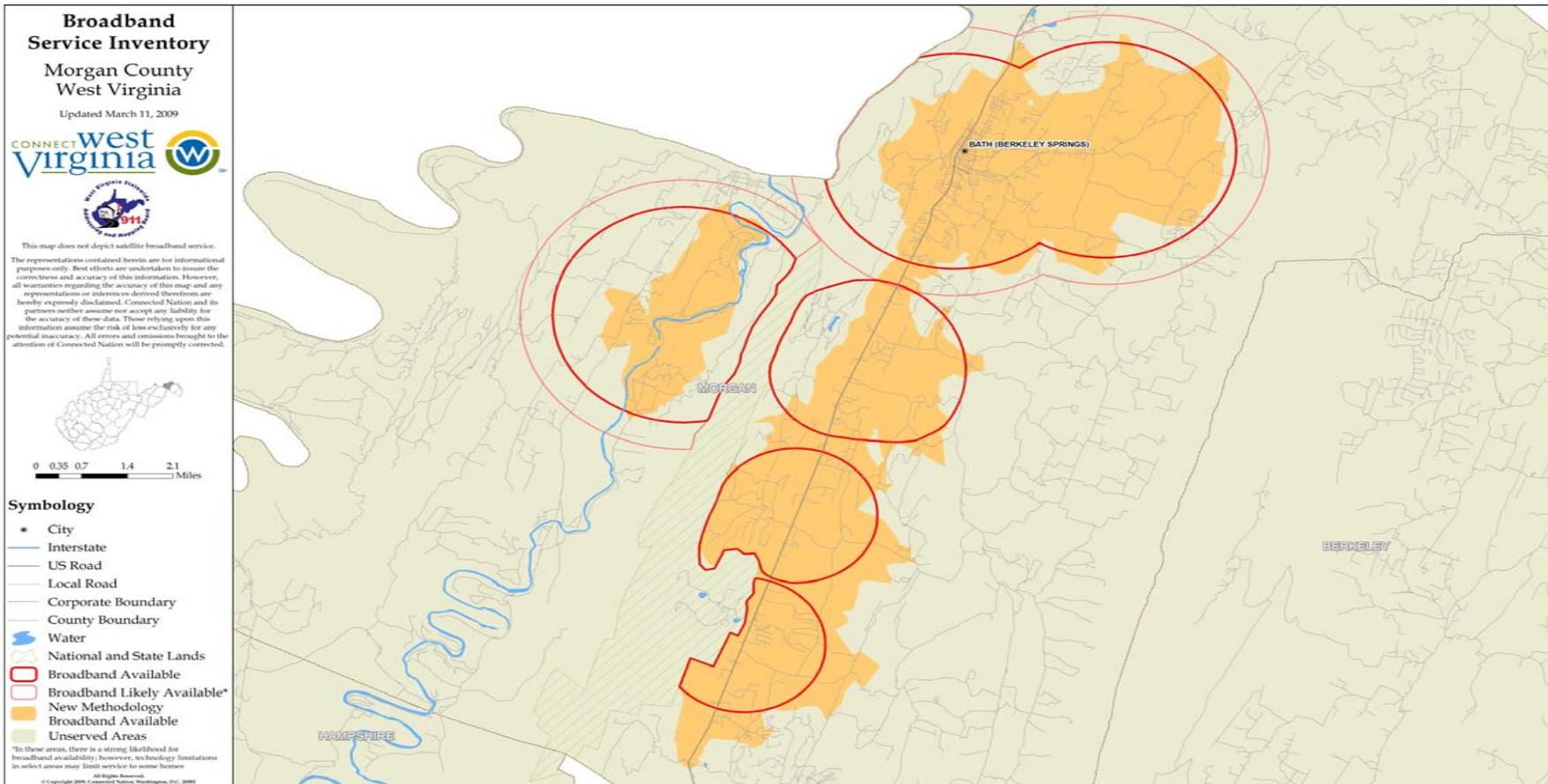


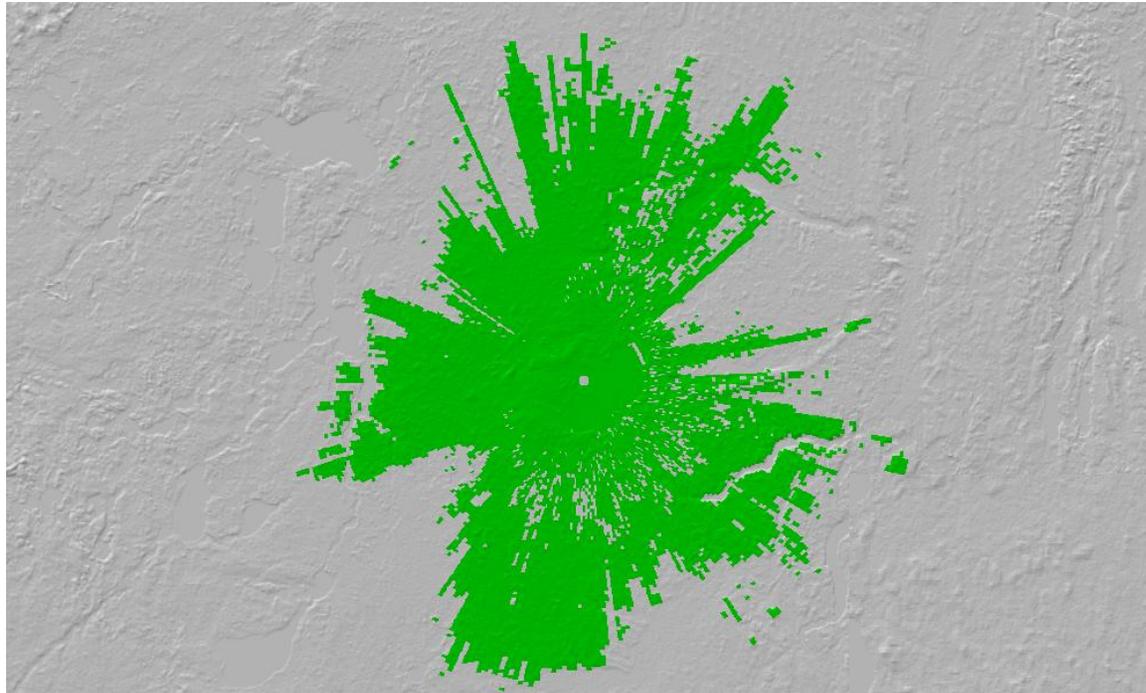
Broadband Mapping in Michigan: Next Steps Continued

- 6) Per the federal Notice of Funds Availability (NOFA), the raw data collected will be supplied to NTIA at the Census Block level of detail. NTIA hasn't yet adjusted the data submission deadlines, so a "substantially complete" data set is currently due to NTIA by February 1, 2010, with a final data set to be submitted by March 1, 2010.**
- 7) The maps will be continuously updated for a period of at least two years (up to five years, pending funding availability).**
- 8) Our Engineering & Technical Services Division, along with our Research Division, will undertake an ongoing process of validating the coverage information reflected on the maps.**
- 9) The public will also have an opportunity to provide feedback on the maps and report inaccuracies at the www.connectmi.org web site.**

<p>Coordinates: Latitude - Degrees (e.g., 36° 24' 47.8" would be entered as 36 in this column, 24 in Column K and 47.8 in Column L)</p>	<p>Coordinates: Latitude - Minutes (cannot be greater than 60)</p>	<p>Coordinates: Latitude - Seconds (cannot be greater than 60)</p>	<p>[Latitude automatically converted here if you entered coordinates using NAD83]</p>
<p>36.0</p>	<p>54.0</p>	<p>47.8</p>	<p>36.913278</p>

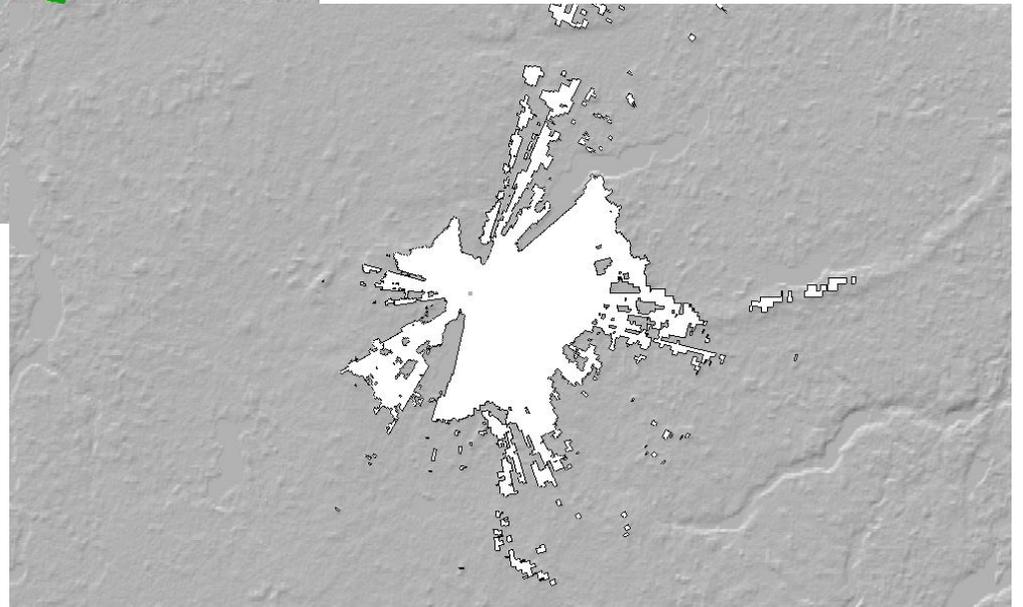
Street Level Detail - DSL





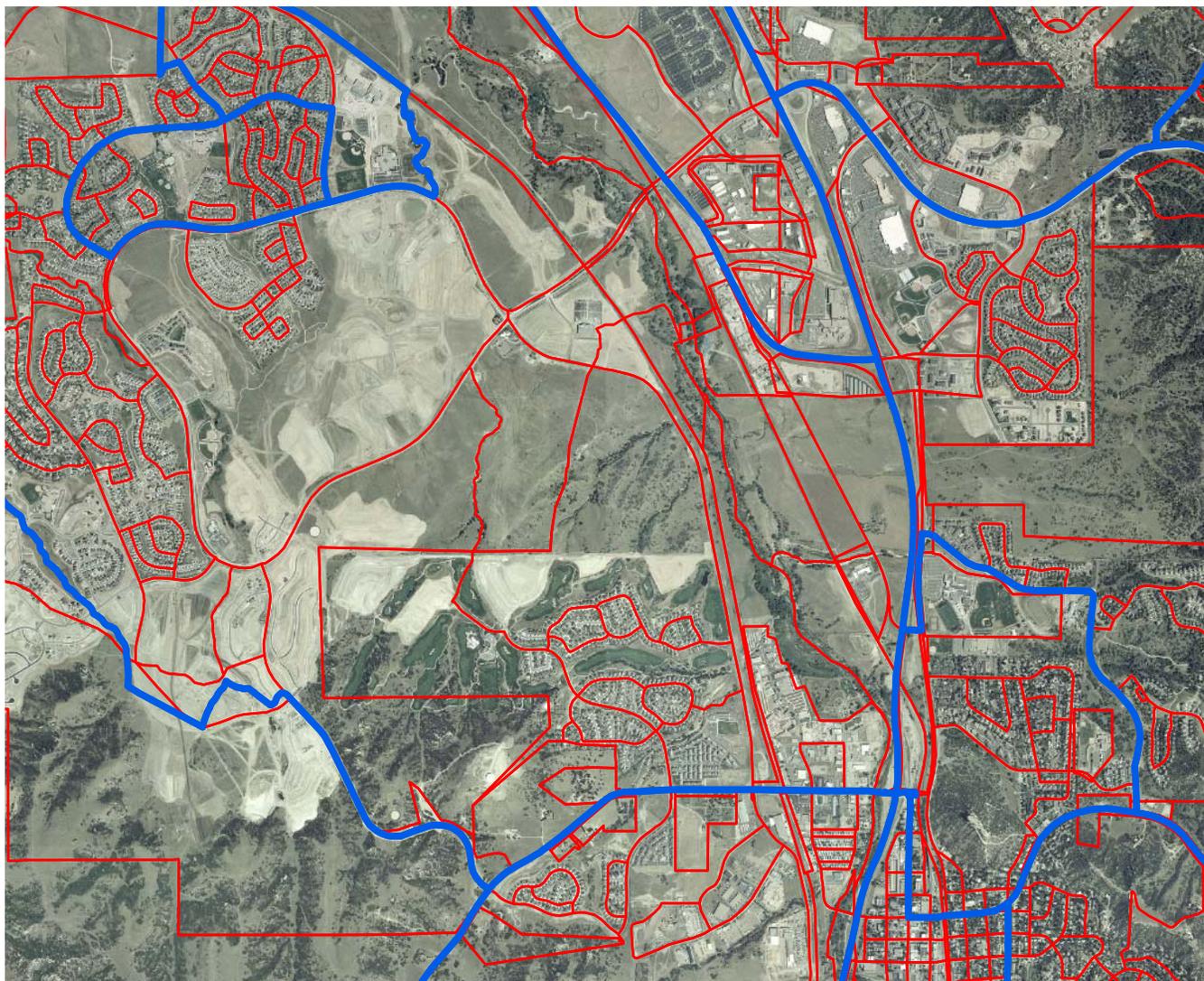
**Propagation
Maps** ←

**Shadow
Maps (LOS)** →





CONNECT
Michigan



Census Block

Vs

***Census
Block Group***



Broadband STAT Demonstration Discussion

Wes Kerr



Broadband STAT: The Nexus Between Mapping and Planning

- The BroadbandStat web application represents the nexus between mapping current broadband availability and planning for the future.
- BroadbandStat is a powerful, yet user-friendly and customizable tool that will allow state leaders & the public to: **Search for and identify broadband service at a specific address, including available speeds and service providers**
 - Understand & track broadband deployment over time
 - Analyze and prioritize unserved and underserved areas using population and household density information
 - Track ARRA-funded broadband projects
 - Build and evaluate scenarios to help score and prioritize future broadband infrastructure proposals
 - Track broadband adoption rates and barriers to broadband adoption, community by community across the state.



Broadband STAT Demo

Wes Kerr



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Questions?



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