



# Minnesota Ultra High-Speed Broadband Task Force

Rick King  
Chair



# Task Force has a broad composition

We have 23 members.....

- education (2)
- telecoms (3)
- cable (2)
- wireless (1)
- rural citizens and businesses (2)
- healthcare (2)
- unions (1)
- libraries (1)
- metro citizens and business (2)
- government\* (7), including the Commissioners of Commerce, DEED and OET.



# Report Recommendations

- Minnesota should have **ubiquitous (every home and business in the state) high-speed broadband** coverage as soon as possible but **no later than 2015**.
- At a minimum, we recommend speeds of **10-20 Megabits per second (Mbps) (download) and 5-10 Mbps (upload)** for all residents of the state by 2015. Additionally, we recommend Minnesota should aspire to be:
  - In the **top 5 states** of the United States for overall **speed**.
  - In the **top 5 states** for broadband **penetration**.
  - In the **top 15 globally** for broadband **penetration**.
- We outline **financial incentives open to the state** to support both the **supply and demand** sides of broadband.

# Report Recommendations

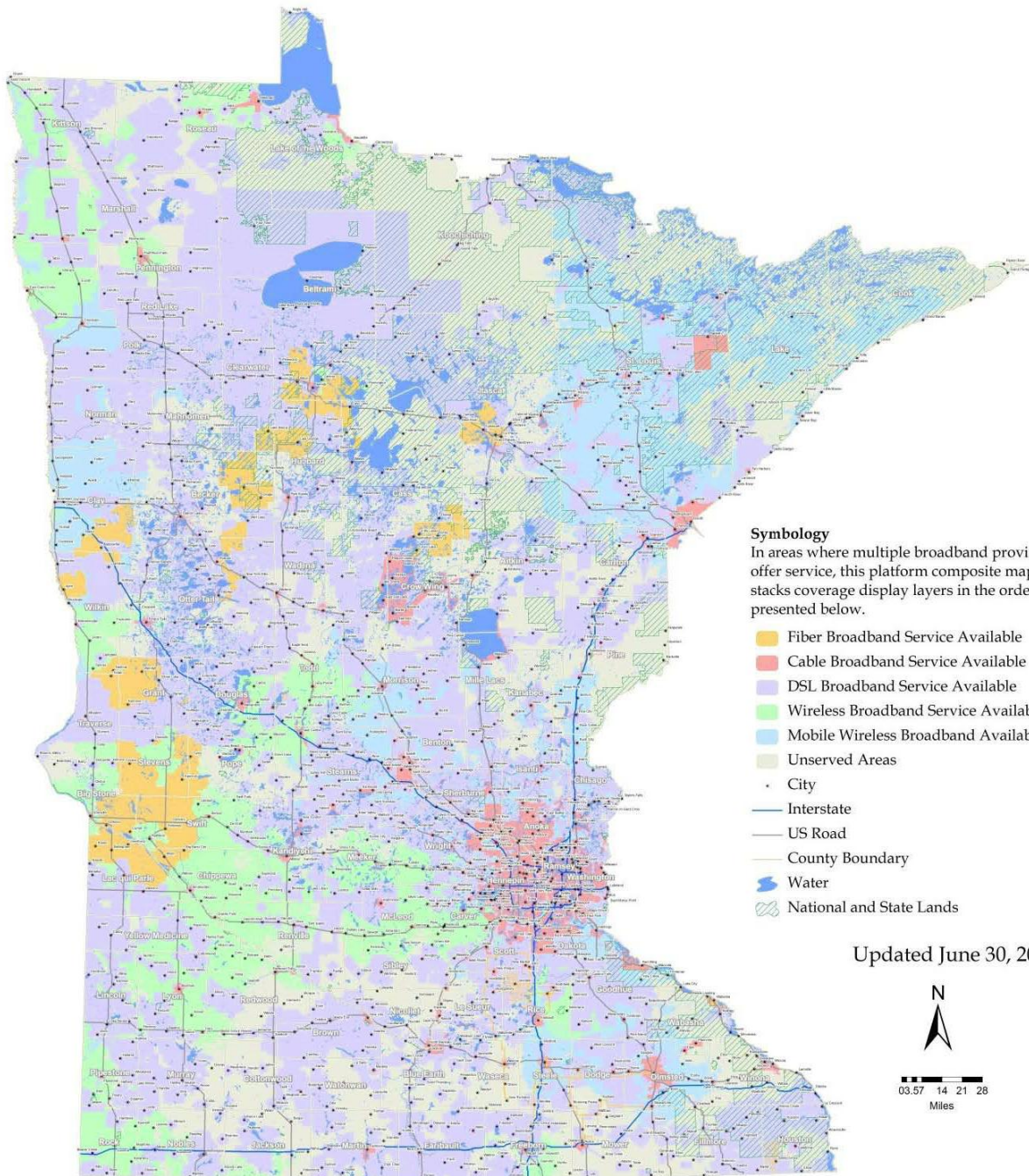
- We make detailed recommendations for the **enhanced security and redundancy** of the existing infrastructure.
- We recommend the creation of a **Broadband Advisory Council for Minnesota (BACM)** to oversee the actions put forth in this report and to see that these objectives are achieved.
- We recommend that the Federal Communications Commission (FCC) adopt a higher standard for the definition of broadband. The current definition is 768 kilobits per second (Kbps).

# “The Good”

- Approximately **94%** of Minnesota households have access to broadband service that meets the FCC’s minimum threshold for broadband at 768 Kbps.
- The remaining **6%** comprises approximately 97,300 households, or about 313,000 people, that do not have access.
- Providers in the Twin Cities, along with some rural providers, provide much higher bandwidth services to consumers—well beyond the **768 Kbps minimum**.

The sample size is comprised of approximately **519,674** tests performed between November 2008 and June 2009

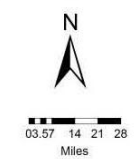




**Symbology**  
 In areas where multiple broadband providers offer service, this platform composite map stacks coverage display layers in the order presented below.

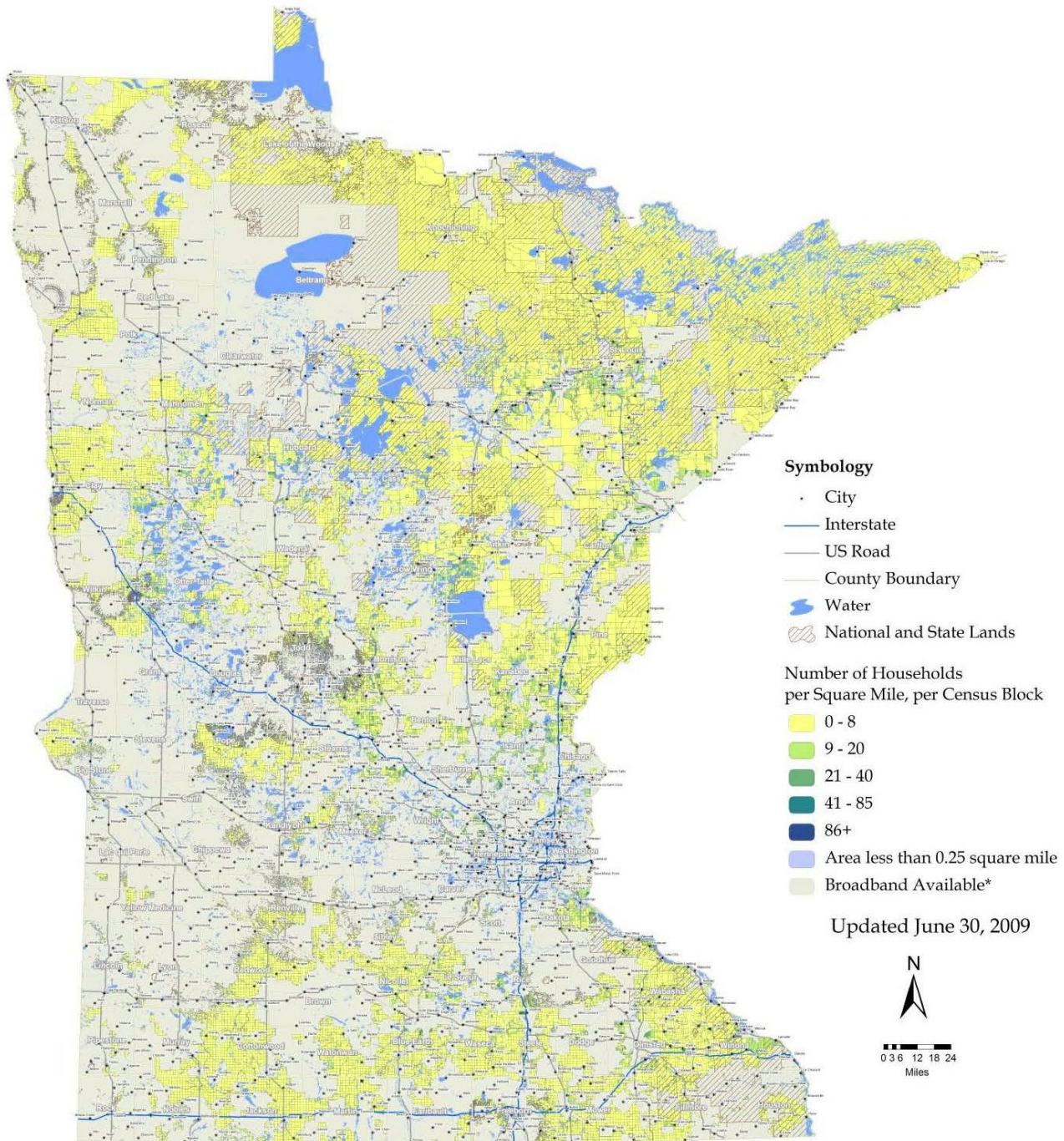
- Fiber Broadband Service Available
- Cable Broadband Service Available
- DSL Broadband Service Available
- Wireless Broadband Service Available
- Mobile Wireless Broadband Available\*
- Unserved Areas
- City
- Interstate
- US Road
- County Boundary
- Water
- National and State Lands

Updated June 30, 2009



# MN Broadband Service Inventory (by platform)

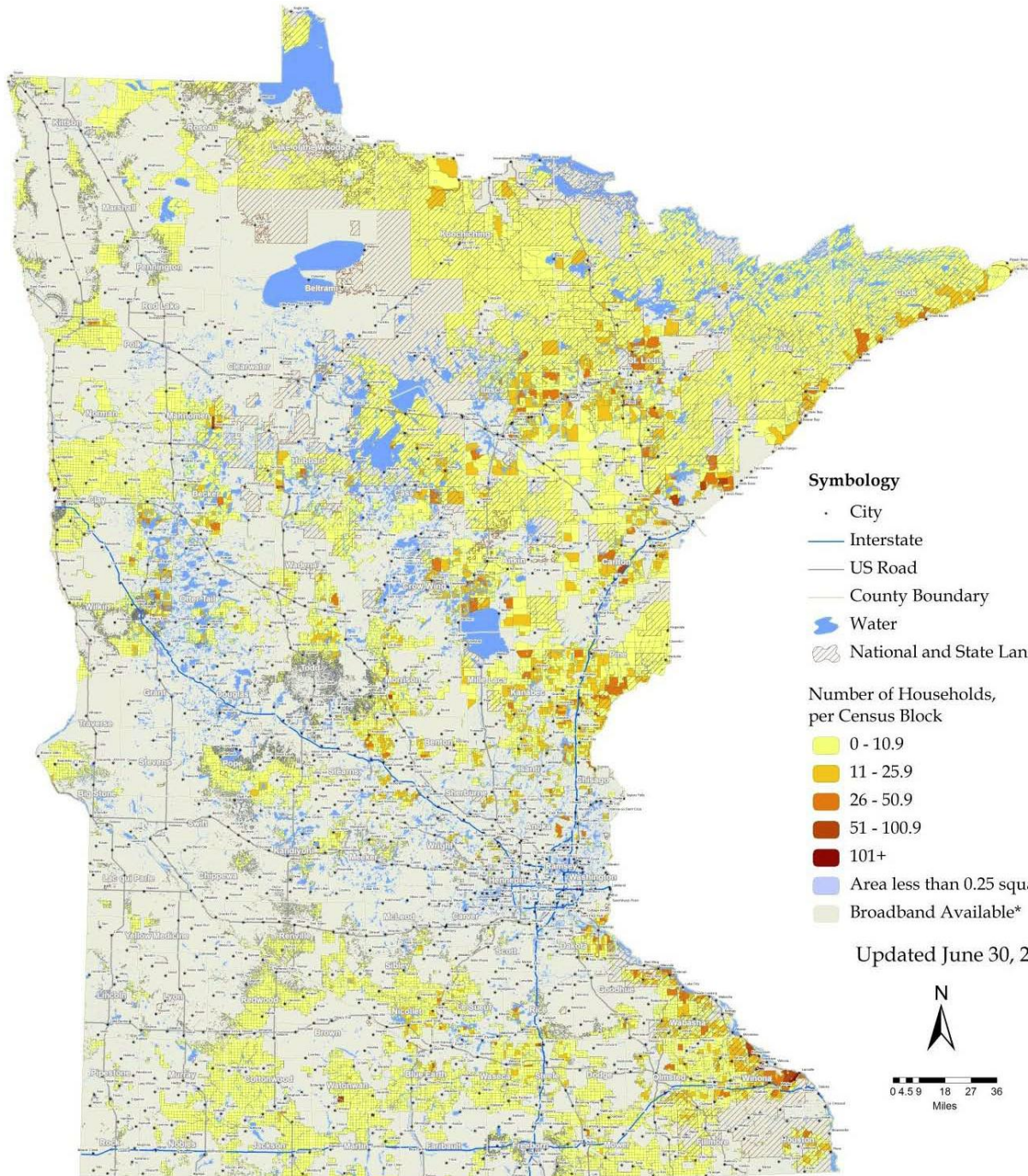




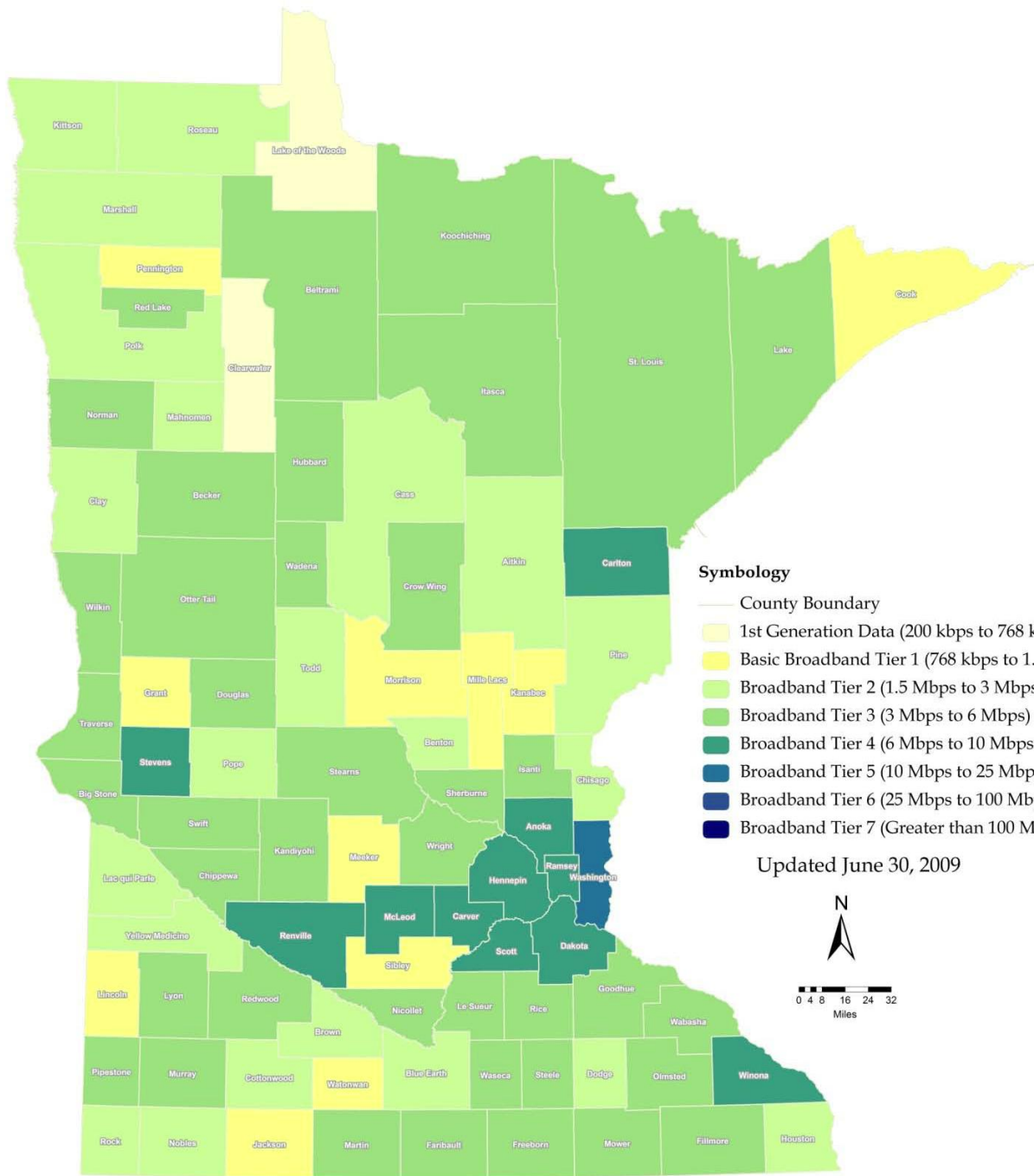
# Household Density of Unserved Areas (by Census Block)

# Census Block





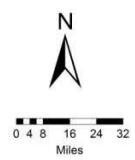
# Number of Unserved Households (by Census Block)



**Symbology**

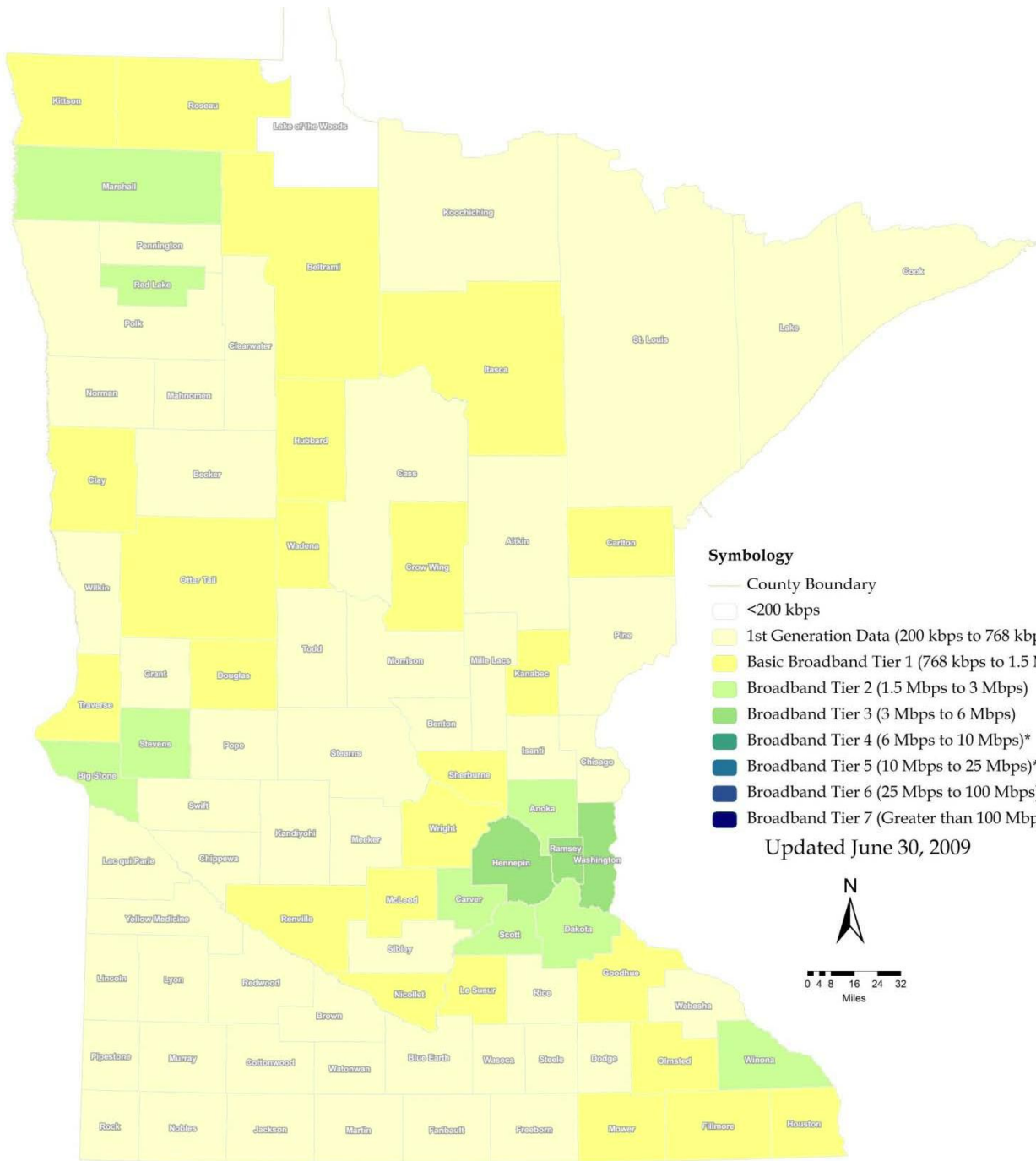
- County Boundary
- 1st Generation Data (200 kbps to 768 kbps)
- Basic Broadband Tier 1 (768 kbps to 1.5 Mbps)
- Broadband Tier 2 (1.5 Mbps to 3 Mbps)
- Broadband Tier 3 (3 Mbps to 6 Mbps)
- Broadband Tier 4 (6 Mbps to 10 Mbps)
- Broadband Tier 5 (10 Mbps to 25 Mbps)
- Broadband Tier 6 (25 Mbps to 100 Mbps)\*
- Broadband Tier 7 (Greater than 100 Mbps)\*

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# Average Residential Download Speed



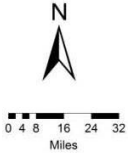


# Average Residential Upload Speeds

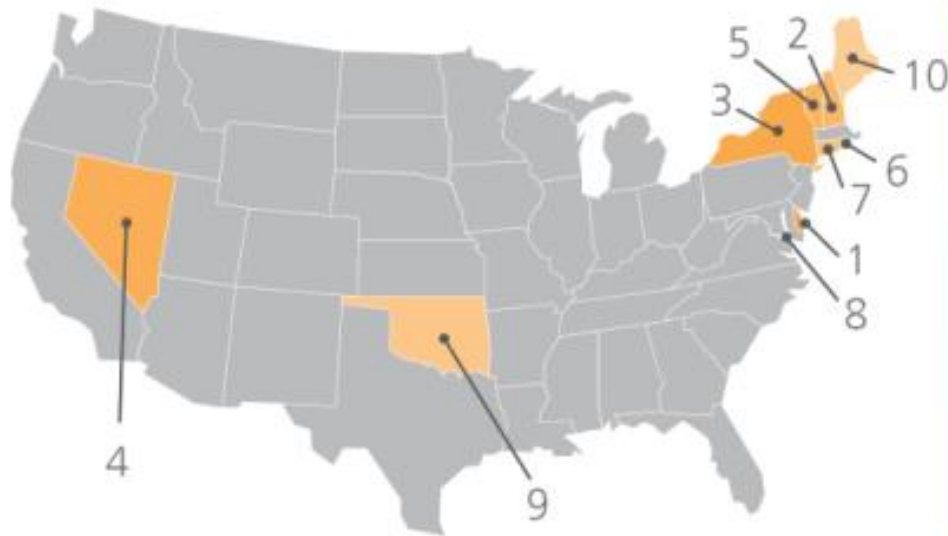
### Symbology

- County Boundary
- <200 kbps
- 1st Generation Data (200 kbps to 768 kbps)
- Basic Broadband Tier 1 (768 kbps to 1.5 Mbps)
- Broadband Tier 2 (1.5 Mbps to 3 Mbps)
- Broadband Tier 3 (3 Mbps to 6 Mbps)
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- Broadband Tier 7 (Greater than 100 Mbps)\*

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# Broadband Speed within the United States



State	% above 5 Mbps	Q1 08–Q4 08 Change	YoY Change
1 Delaware	62%	+0.6%	+6.7%
2 New Hampshire	59%	+5.1%	+100%
3 New York	49%	+5.8%	+38%
4 Nevada	45%	+16.2%	+36%
5 Vermont	44%	+3.9%	+128%
6 Rhode Island	42%	+4.3%	+0.5%
7 Connecticut	42%	-1.2%	+30%
8 District of Columbia	41%	+15%	+51%
9 Oklahoma	40%	+12%	+22%
10 Maine	38%	-1.1%	+371%

**Minnesota's Ranking in Q1 of 2009 is #23**

Source: Akamai Technologies Q2-2009 High Broadband Connectivity, Fastest U.S. States.



# Broadband Leaders Worldwide

Country	Broadband IPs Per Capita
- Global	0.02
1 Monaco	0.34
2 Norway	0.32
3 Sweden	0.30
4 Denmark	0.30
5 Netherlands	0.30
6 Switzerland	0.29
7 South Korea	0.28
8 Germany	0.28
9 Iceland	0.27
10 Belgium	0.26
...	
14 United States	0.21



**The United States is 14<sup>th</sup>**

**Source: Akamai Technologies Q2 - 2009: Global Broadband Penetration.**

# “The Bad”

- Only **17%** were conducted over connections that met both the **10Mbps download** threshold and **5Mbps upload** threshold
- Only **Washington County** produced download speed results that were, on average, greater than **10Mbps**
- On the upload side, only **Washington, Ramsey, and Hennepin counties** demonstrated upload speeds that were 3-6Mbps, on average

# “The Ugly”

The state is a long way away from meeting its proposed 2015 speed goals.



# Next Steps

## **Legislative and Executive Action**

- We've asked the legislature to “adopt” our goals and the overall report in law
- Leaders plan to introduce legislation to that effect this coming session

## **Public Outreach**

- TF members are discussing the recommendations all around the state
- Media has been heavily involved

# Panel Introduction

- Moderator: Rick King\*, CTO, Thomson Reuters
- Rep Sheldon Johnson, Chair, House Telecommunications Regulation and Infrastructure Division Committee
- Mike O'Connor\*, Serial Internet Entrepreneur
- John Stanoch\*, MN President, Qwest
- Gopal Khanna\*, State CIO
- Mary Ellen Wells\*, Health Care Executive

\* Task Force Member





# For further information

[www.ultra-high-speed-mn.org](http://www.ultra-high-speed-mn.org)

