

Oneida County
Economic Development Corporation
Broadband Development Committee

**DEVELOPING A COUNTY-WIDE
BROADBAND SYSTEM**

Roger Luce – Exec. Director, OCEDC

Dave Noel – Committee Member

Paul Osterman – President, Northwoods Connect

BROADBAND DEVELOPMENT COMMITTEE

- Mission is to assist, promote, or do whatever is necessary to bring true broadband capabilities to Oneida County, especially the rural areas.
- Volunteer group - working under OC Economic Development Corp.
 - 1st task: Environmental scan to understand what was out there
 - 2nd task: Contact existing Internet Service Providers
 - 3rd task: What are our development/expansion options?
 - 4th task: Develop a county-wide implementation plan

PSC RURAL BROADBAND GRANTS

OCEDC has applied for 3 PSC Broadband Grants:

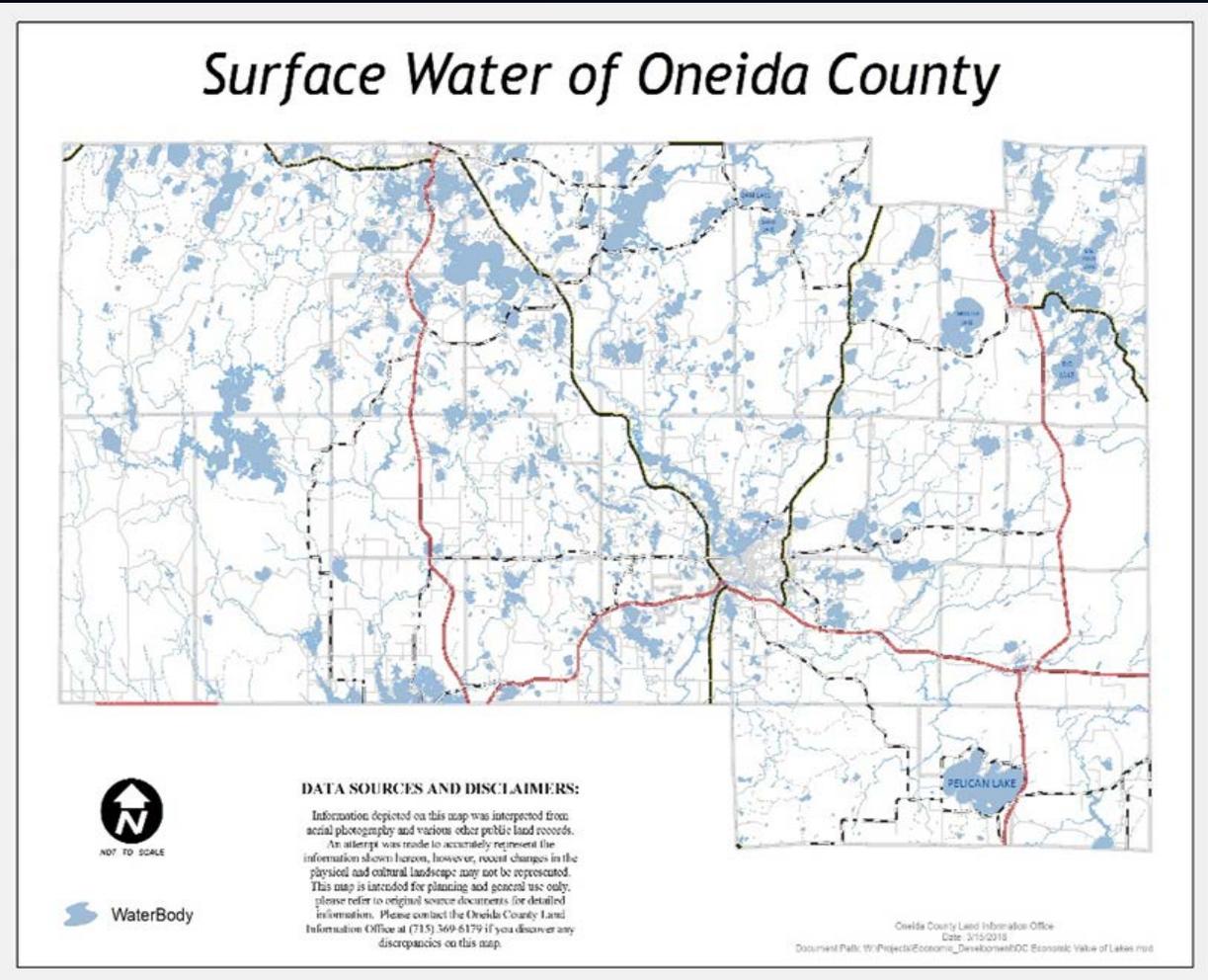
1. 2015: Awarded request \$46,450 (52%)
toward total project \$88,750
2. 2016: Not awarded request \$98,204 (62%)
toward total project of \$157,104
3. 2017: Awarded request \$180,566 (45%)
toward total project \$403,236

PSC RURAL BROADBAND GRANT PROCESS

- Advance directions & promotional effort outstanding.
- Application process is straightforward & uncomplicated.
- Application schedule is reasonable.
- Selection process appears slanted toward fiber proposals.
- Selection process appears less favorable toward wireless.
- Question practice of using other gov. grants for PSC match funds.
- Question PSC criteria for determining “scalability”, esp. wireless.

TERRAIN ISSUES IN NORTHERN WISC (ONEIDA CO)

- One of the highest concentration of lakes in the world
- 1,129 lakes: 10-15% of total surface area
- Mapped wetlands represent another 15-25%
- 830 miles of streams



DEMOGRAPHICS OF ONEIDA COUNTY

- 40% live in 3 towns & on major travel routes
- 50% of residents live on water
 - 75% are seasonal residents (10,316)
- Over 70% of residential asset value is in waterfront homes
 - 90% of the asset value of the waterfront homes are seasonal residents
- Seasonal residents contribute \$52 million per year to the local economy
 - Broadband availability could increase spending by \$10-\$20 million/yr



IS FIBER REALLY THE BEST BROADBAND SOLUTION FOR THE NORTHWOODS ?

- For years we've heard "fiber is the future" of broadband
- Cost to run fiber in northwoods: \$100,000+/mile
- Recent PSC grants indicate costs of up to \$2,700 per resident

If your only tool is a hammer, then everything is a nail !

IS FIXED WIRELESS TECHNOLOGY FOR REAL ?

THE WALL STREET JOURNAL.
WSJ

Google Fiber rethinking its costly cable plans, looking to wireless (WSJ: 8/2016)

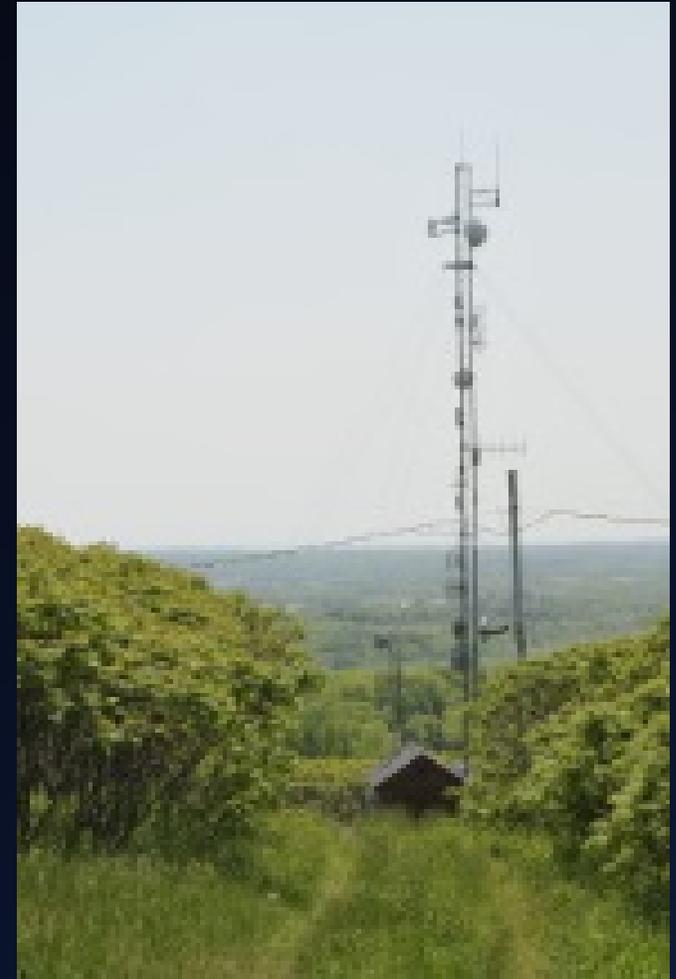


The
Washington
Post

“Wireless Fiber” could give us gigabit internet speeds with no cables (WP 8/2016)

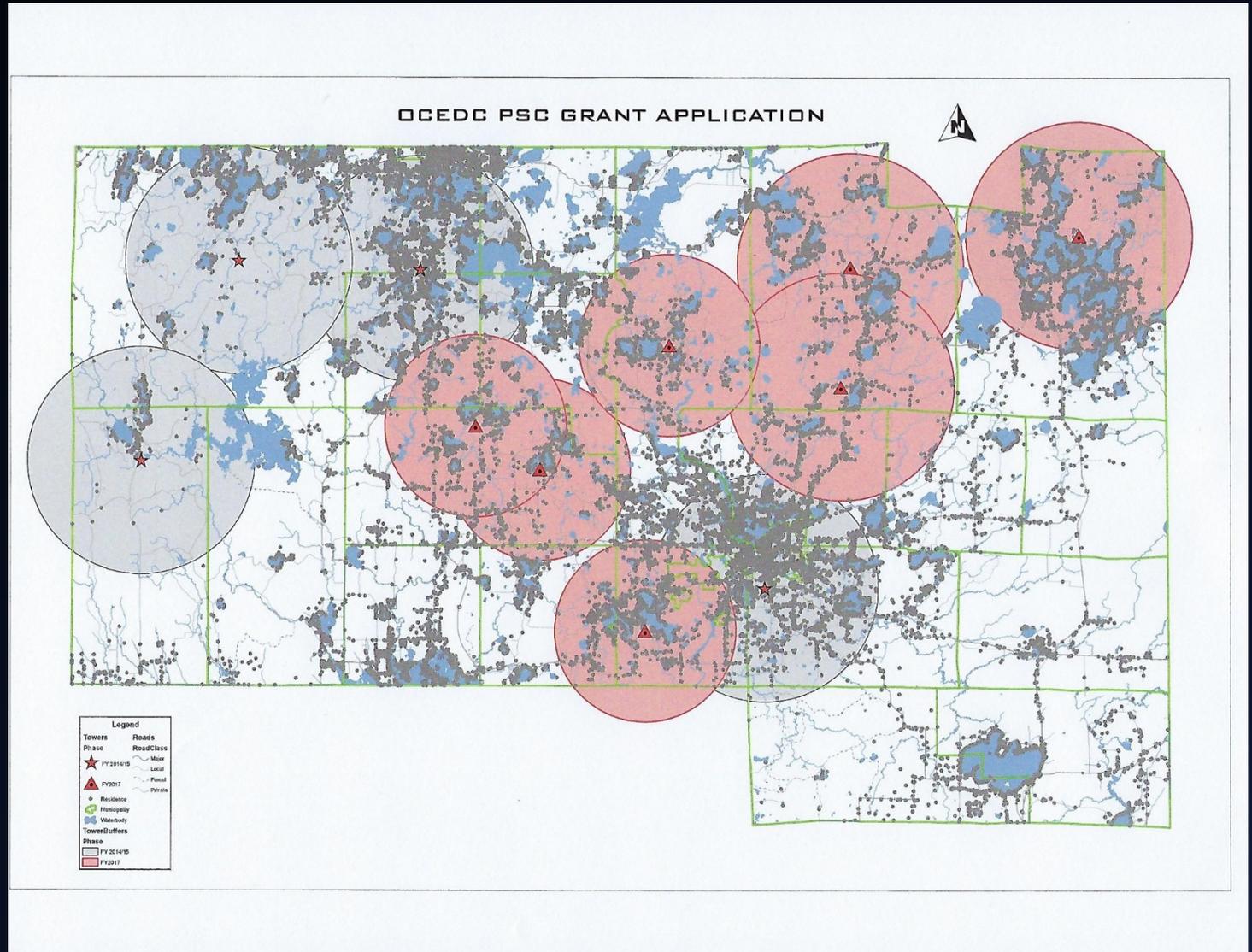
NORTHWOODS CONNECT WIRELESS INTERNET SERVICE PROVIDER

- Founded in 2014 with the goal of bringing affordable, high-speed Internet to the rural locations of northern Wisconsin.
- Engineered, installed & maintain the first Telrad based fixed LTE network in Wisconsin (Mole Lake).
- Utilizing state-of-the-art LTE technology NWC is able to provide 25+Mbps on Lite-Licensed frequencies.



ONEIDA COUNTY WIRELESS NETWORK

- Existing: 5 towers operational
- 2016/17: 7 additional towers to be added
- Approx 40% of OC covered
- 100% coverage will require approx. total 20 towers



THE TECHNOLOGY: MICROWAVE BACKBONE

- 1Gbs+ Microwave technology available for both licensed and unlicensed frequencies.
- Does not require fiber to towers
- Scalable to support gigabit speed delivery
- Low latency equals or exceeds that of fiber.



THE TECHNOLOGY - CAPABILITIES TODAY

- Proven 4th generation LTE technology
- True broadband speeds of 25 Mbps +
- Typically 4-5 mile radius coverage (50 sq miles per tower)
- Advanced, low latency microwave backbone
 - No need for fiber to towers
 - Scalable to gigabit speeds



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