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# Litchfield AD-HOC Broadband Update

Select Board Meeting - December 9, 2019

Larry Bell - Chair  
Joline Bell  
David Blocher  
Cheri Cooledge  
Tom Wood

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# What is Broadband?

Transfer of electronic data at high capacity / speed

Minimum broadband speeds (as defined by the FCC):

25 Mbps download / 3 Mbps upload



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## Why Important to Litchfield?

Broadband has become a utility as vital to daily living as:

- Electricity
- Public roads
- Gas
- Sewer/septic services
- Water



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## Broadband Benefits

- Home entertainment & connectivity
- K-12 education/distance learning/libraries
- Telecommuting - home based businesses
- Aging in place - communication and telemedicine
- Creation and retention of quality jobs and businesses
- Government & civil participation / public safety
- Energy & environmental impact
- Remotely connected devices - 'Internet of Things'
- Enhanced property values



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## Ad-Hoc Committee Charter:

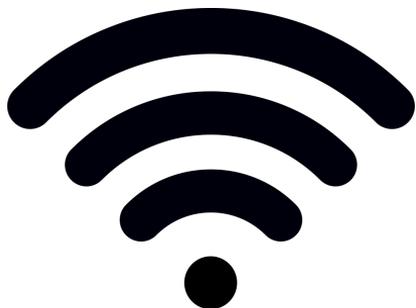
Provide everyone with quality broadband services at a competitive cost:

Includes the Unserved:      Without Internet

And the Underserved:      Slow connection speeds  
Periodic disconnects  
Excessive monthly fees  
Data limits

Also need to plan for future information needs

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# Incumbent Service Providers

Charter 'Spectrum' (cable) - formerly Time-Warner

Consolidated Communications (DSL) - formerly Fairpoint

HughesNet (Satellite)

US Cellular (Cellular)



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# Town of Litchfield Demographics

Population: 3624

Households: 1450

Land area: 40 square miles

Road miles: 52

(Source: Redzone Wireless)



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# Litchfield Survey Data Results

Of the approximately 50+ respondents (November survey) -  
Two-thirds unserved or underserved

Common complaints:

- Slow connection speeds
- Inconsistent connections
- High costs/month
- Data limits (HughesNet & US Cellular)
- No acceptable broadband available
- Stuck with current ISP / No options

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# Options for Consideration

Option 1: Charter 'Spectrum'

Option 2: Consolidated Communications

Option 3: Wireless

Option 4: Fiber

Option 5: Some combination of the above



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## Option 1: Spectrum

Met with incumbent representative (11/20/2019)

Spectrum currently investing in hybrid network (fiber & cable)

730 current customers in Litchfield (50% of households)

100 Mbps unlimited data at \$54.99 per month (minimum)

Path forward: Monitor responsiveness to town needs

Optimize existing programs

Low income 30 Mbps 'Spectrum Internet Assist'





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## Option 2: Consolidated

Current customers in Litchfield?

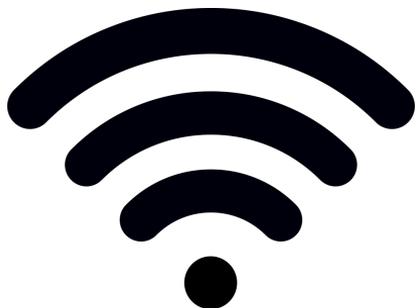
Capital Investment Plan for Litchfield?

DSL only for residential customers?

Download speeds available?

Cost per month?

Path Forward: Meeting scheduled for week of December 16



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## Option 3: Wireless - Redzone

Visited Redzone Wireless on 10/30/2019

Wireless: Utilize cellular and TV tower(s) nearby

Beam microwave signal to wireless modems at households

Investment: Some town investment per tower required

100 Mbps unlimited data / \$50 per month for five years

Requires town guarantee of 100 customers per tower

ConnectME grant money available?

Potential to share investment with Monmouth & Wales

Path forward - investigate # of towers (\$ investment) required

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## Option 4: Fiber Investment

Gold standard for high speed data transmission

1000 Mbps (1 Gbps) data speed

\$20-30,000 per mile estimated installation cost

Plus \$600 investment per household

Almost \$2,000,000 investment to cover Litchfield

Order of magnitude larger investment over wireless

Combination of federal and state grants, town bonds,

TIF funds, and ISP subsidy required

Path forward: Too costly w/o significant government subsidy



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## Summary of Proposed Next Steps

Address current issues/complaints with incumbent providers  
(Spectrum and Consolidated)

Find at least one solution for all unserved / underserved  
(Likely will require town investment)

Provide more than one provider option when possible  
(Keeps providers competitive)

Keep abreast of potential government fiber subsidies

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