

CONSOLIDATED COLVILLE TRIBES-FERRY COUNTY

Broadband Action Plan

Community Review Session

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Community Review Session

Agenda

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1. Instructions and Introductions
2. Project Overview and Background
3. Broadband Market Analysis and Needs Assessment
4. Broadband Development Issues and Options
5. Network Vision and Strategy
6. Recommendations and Next Steps

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About Magellan Advisors

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400

400 Utility &
Municipal Served

50+

50+ Fiber & Wireless
Networks Deployed

\$1B

\$1 Billion of Broadband
Investments

1M

1 Million Fiber
Customers Connected

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Introductions

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- ▶ Melanie Downing
 - Project Coordinator
- ▶ Greg Laudeman, Ed.D.
 - Project Manager
- ▶ Ashley Poling
 - Consultant
- ▶ Jory Wolf
 - Project Executive

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Instructions

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- ▶ Everyone is muted
- ▶ Online or via Zoom app
- ▶ Telephone

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Project Overview

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- ▶ Facilitate joint planning by BAT and stakeholders (YOU!)
- ▶ Assess needs based on:
 - Stakeholders' input: interests and requirements
 - Demand and supply information from BAT's survey
 - Available infrastructure, providers, and services
- ▶ Identify best practices, broadband development options, and industry partners
- ▶ Evaluate business case(s)
- ▶ Align grant opportunities and schedules with partners and plans
- ▶ Develop an action plan

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Broadband Action Plan

BROADBAND MARKET ANALYSIS AND NEEDS ASSESSMENT



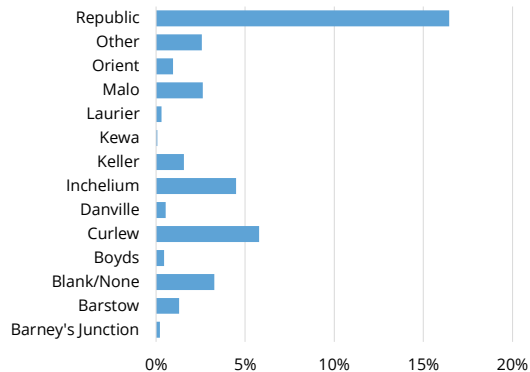
CCT/Ferry County BAT

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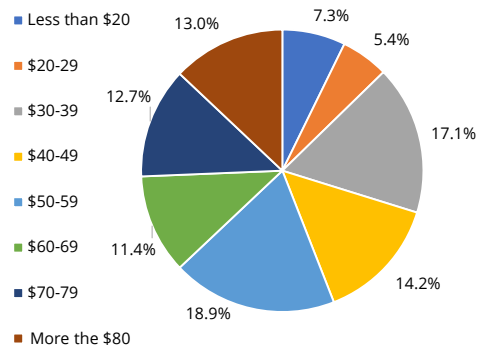
Broadband Market Analysis and Needs Assessment

Demand

Percentage of 464 respondents per community



Willingness to pay for internet by percentage of 386 respondents



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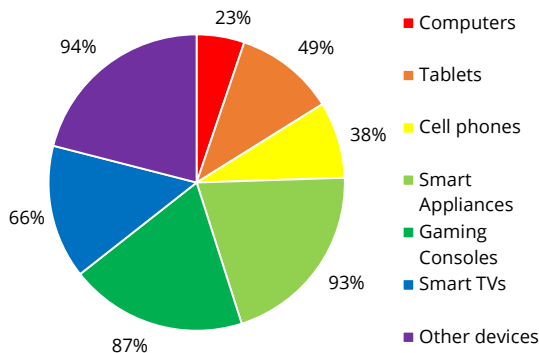
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Broadband Market Analysis and Needs Assessment

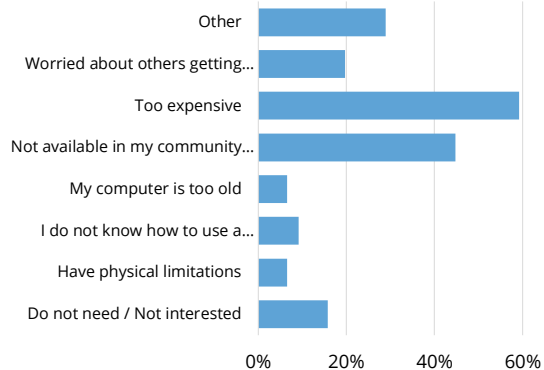
Demand

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Percentage of 444 respondents WITHOUT connected devices



Reasons for not having internet by percentage of 76 responses



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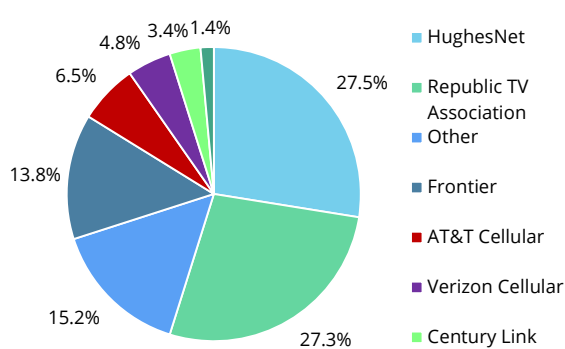
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Broadband Market Analysis and Needs Assessment

Supply

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Internet service providers by percentage of 349 respondents



Average tested download and upload speeds

Provider	Average Speed	
	Download	Upload
Other	9.79	1.08
Verizon Cellular	9.39	1.28
AT&T Cellular	6.68	1.42
Republic TV Association	6.08	1.66
Frontier	5.47	1.26
HughesNet*	5.16	0.80
Viasat*	1.97	1.06
Century Link	NA	NA
Overall	6.36	1.22

* Technical issues with satellite cause vastly inflated speed-test results. Data presented here are discounted by 60% to estimate actual speed.



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Broadband Market Analysis and Needs Assessment

Infrastructure

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- ▶ Cable television and broadband in northwest Ferry
- ▶ Cellular and wired telephone inhabited areas
- ▶ NoaNet fiber route through Republic, into Okanogan and Stevens counties
- ▶ Limited tower sites and other vertical assets
 - Some tower sites may be tied up and unavailable
 - Gaps in poles along Rt 21, Hwy 395, and Incheellium Hwy

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Broadband Market Analysis and Needs Assessment

Conclusions

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- ▶ Broadband is unavailable except in the Republic area
- ▶ Backhaul, distribution, and access infrastructure are all lacking
 - Backhaul/distribution fiber is a critical gap
 - Sites for radio access networks is a critical gap
- ▶ Benefits are limited to consumer-oriented and general-purpose uses
 - Business/work, education, and healthcare are key opportunities!

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Broadband Market Analysis and Needs Assessment

Feedback or questions?

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BROADBAND DEVELOPMENT ISSUES AND OPTIONS

Broadband Development Issues and Options

Best Practices

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- ▶ Broadband-friendly policies
 - Antenna placement and facilities
 - Dig Once and joint trench
 - Expedited permitting
- ▶ Direct public investment
 - Incremental and opportunistic
 - Funding sources: Grants, loans, municipal bonds
 - Use of existing public assets: fiber, conduit, poles, hilltops, towers
- ▶ Providers as investors
 - Making the business case
 - Coordinated deployment efforts
 - In-kind exchange of assets

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Broadband Development Issues and Options

Community Stakeholder Issues

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- ▶ Clear lack of options
- ▶ Limited capacity/low speeds at high costs
- ▶ Small, rural market
- ▶ CCT prefers to own assets, may operate via start-up
- ▶ Ferry County PUD provides poles and other assets
 - Will not own or operate any network assets
- ▶ Role of other county-level stakeholders is unclear

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Broadband Development Issues and Options

Potential Partners

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- ▶ Avista Edge
- ▶ Coulee Internet
- ▶ DNG/Microsoft
- ▶ Inland Cellular
- ▶ NoaNet
- ▶ NorWest Networks
- ▶ StarTouch
- ▶ TV Association of Republic

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Broadband Development Issues and Options

Industry Roles

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- ▶ Build infrastructure
- ▶ Operate and maintain/manage access and distribution
- ▶ Partially own backbone. Primarily own access network
- ▶ Provide access and backhaul services
- ▶ Provide capital
 - Financial
 - Human

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Broadband Development Issues and Options

Feedback or questions?

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NETWORK VISION AND STRATEGY

Network Vision

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Public-private partnership(s) to make true broadband available along all routes and in populations centers throughout Ferry County

- ▶ Dual north-south fiber backbones
 - Aerial deployed where possible; buried where necessary
- ▶ Fiber connections to key sites served by provider partners
- ▶ NoaNet for backhaul and route interconnection
 - Additional backhaul/interconnection via existing CCT fiber
- ▶ Provider-neutral aggregation/interconnection points
 - Ferry County PUD headquarters, Republic
 - Colville Fuels Noisy Waters, Barney's Junction
- ▶ Provider-neutral antenna sites
 - Provider-owned RAN equipment



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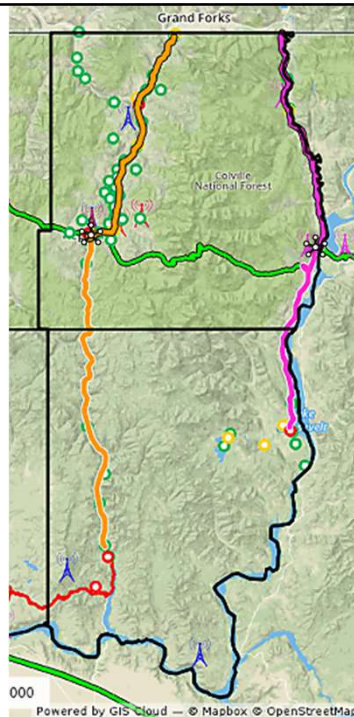
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Network Vision

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Route	Miles	Sites		
		P1	P2	P3
Northeast	28	0	1	2
Northwest	31	1	5	71
Southeast	26	0	0	0
Southwest	42	0	0	12
CCT Fiber		12	4	12
Total	127	13	10	97



Fiber Routes

- West
- East
- NoaNet
- CTCR

Targeted Sites

- Priority 1
- Priority 2
- Priority 3
- 📶 Tower Sites
- ⚡ Interconnection points



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Funding Opportunities

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- ▶ State of Washington Community Economic Revitalization Board (CERB) – Rural Broadband Loan/Grant
- ▶ Indian Energy and Economic Development – National Tribal Broadband Grant
- ▶ FCC Rural Development Opportunity Fund - Auction 904
- ▶ USDA – RUS ReConnect
- ▶ Economic Development Agency, Economic Adjustment Assistance Program, CARES Act
- ▶ Other Funding Opportunities

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Broadband Action Plan

Recommendations and Next Steps

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1. Address asset ownership
 - CCT fiber backbones in southern area
 - No clear owner in northern area
2. Conduct feasibility study, as appropriate, and develop high-level design
3. Establish agreements with partners
 - Avista and Ferry County PUD poles
 - NoaNet backhaul and interconnection
 - Providers' access infrastructure
4. Identify radio access network antenna sites
5. Pursue public funding and develop other financing
6. Specify aggregation and interconnection points
7. Plan for operations, marketing and promotions
8. Create low-level design and build network

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Feedback or questions?

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Thank you for your time!

For additional information contact:

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