July 11, 2012

WIRED OR WIRELESS, INC.

FCC Headquarters
445 12th St. SW, Room TW-A325
Washington, DC 20554

Response to Petition
WC Docket Nos. 10-90, 05-337

To whom it may concern;

Wired or Wireless, Inc. is an Eastern Washington and Northern Idaho Wireless Internet Service Provider (WISP) that has been servicing the area for the past twelve years. Our approach has been to build outward from our core in Spokane Valley, Washington. Over the past twelve years we have invested more than $2.5 Million in infrastructure towards that effort. That investment includes: towers; backhaul; access points and subscriber equipment. Our network consists of 17 primary; 15 secondary; and 7 tertiary backhauls.(Exhibit 7) In addition we manage over 40 relays, and dozens of micro relays to support customers without line of sight to a tower location. We support nearly 1,900 residential and 400 commercial customers. Our network is designed with built in redundancy to provide our customers with consistent service.

We are currently building a multilink backhaul to service a rural Washington hospital. The hospital contracted with us to build the network to provide 99.99% uptime redundant service. The hospital is within CenturyLinks existing service area, however they are unable to provide the level of bandwidth and service that the hospital requires. Within a matter of two weeks of signing that agreement, a nearby small town hospital contacted us to bid on building them a similar solution, and experienced the same problems with CenturyLink. This is primarily due to the fact that CenturyLink would have to invest their own capital, and cannot get public money, ie corporate welfare to build the additional capacity required to service this customer.

We are 50% owners of Priest Lake Broadband Internet, LLC, dba MooseBytes which services Priest Lake, Idaho with over 200 customers in some of the most remote area of Idaho.

We do not enjoy our territory free of competition as their petition would lead you to believe. We compete on a daily basis with other wireless providers, Ptera, Cougar Wireless, Ecliptixnet, Wind Wireless, Password, POVN, Intermax, Day Wireless, as well as several smaller mom and pop networks. Each of us is on separate towers and has multiple relays that cover nearly 100% of the territory in question. Exhibits 8,9 and 10

Our company is not a recipient of Universal Service Funds (USF) or Connect America Funds (CAF). We take great pride in the fact that we have built our network and company without being subsidized by the State and Federal government. We were the recipients of a 2009 RUS grant to bring broadband Internet to Malden, WA. The costs associated with complying with the law and the terms of the grant, raised the cost per customer to over $13,578. Our mandatory 15% matching funds exceed $85,000. We currently serve 45 customers of the 70 households within the service area. Less than 2 years after launching service in Malden, Frontier Communications is now deploying DSL into Malden. As there is insufficient population to support a return on investment for their capital costs, I can only assume they are using USF or CAF monies to fund their expansion.

The very reason CenturyLink is requesting this petition is that there is insufficient profit motive to build the infrastructure out of their own profits (as we must). They are requesting money from the government (public funds) as corporate welfare to burden the tax payers with the cost of building a network in the name of providing "low cost" Internet. If CenturyLink chooses to move into these areas, they should be forced to compete on a level playing field. They should have to invest their own capital and put those funds at risk. They would then have to price their services accordingly to get a sufficient return on investment to warrant the expansion into these already served areas.

If they should prove successful, in this petition, it would irreparably harm our and several other small business owners that do not have the luxury of receiving millions of dollars in corporate welfare. The intent of the Connect America Funds is to provide funds to reach the truly unserved area, and not to be used for competitive broadband. In addition, according to the American Customers Satisfaction Index, CenturyLink maintains the lowest customer satisfaction score in the Fixed Line Telephone Industry (Exhibit 1). Therefore, the public we and our fellow WISP providers serve would also lose the highest level of customer support they have come to enjoy for the lowest level of customer satisfaction in the industry.

The loss of customers we will experience will necessitate reducing our staffing levels, if not going out of business entirely. This will cost the economy more jobs than will be made up by CenturyLink. Furthermore, there is not evidence that they will be able to provide DSL service to every customer. At 1.5 Mbps the DSLAM equipment CenturyLink is deploying in the more rural areas have a effective range of roughly 15,000 ft or approximately 2.8 miles, assuming relatively newer, good quality cable. Each twisted pair must originate at the DSLAM and run unimpeded to the customer. In more densely populated areas, the number of households per DSLAM is much greater than the rural areas we serve. In much of the northern areas they identify with the red arrow on their exhibit D, the population density is 0-5 people per square mile, which translates to approximately 2 homes per square mile. I doubt seriously that they will dedicate a single DSLAM for a maximum of four residences. If they are allowed to drive the WISP's out of business, these customers will certainly lose their Internet service as we would not be able to survive on those customers alone. http://en.wikipedia.org/wiki/Digital_subscriber_line_access_multiplexer

I wish to address their petition on a point by point basis, and point out their erroneous and inaccurate statements.

A. WISP Capacity Constraints

With Burst Buffer capacity per transaction (per mouse click) of 20MB for our 768Kbps plan, our average customer on that plan averages 4.8Mbps down by 1.1Mbps up speeds when using our service according to speedtest.net averages for all Air-Pipe customers. Only when they are streaming larger files or downloading files in excess of their burst buffer, does their sustained rate of 768Kbps kick in. Due to our competitors advertising their "up to" speeds (burst rate) we have recently started marketing the average speedtest.net rate along with suitable service plan uses, to allow customers to make a better decision about what is comparable service. We believe in truth in advertizing. We can't speak for our competitors.

As our company continues to grow, so does our customers consumption of bandwidth. We are reinvesting in our infrastructure. New technology and additional primary tower sites allow us to increase capacity from our core. We then push the older equipment down to secondary or tertiary sites, increasing the capacity down the pipe, and finally on to new tower and relay sites that extend our network.

Furthermore, we are able to better target our signal and make more and narrower sectors on our existing sites which also allow us to increase our capacity to each customer in these areas. Based on the average population per acre, we believe our planning is on target to be able to provide the desired bandwidth in the rural communities.

CenturyLink assumes that 100% of the households in these areas are interested in receiving Iternet service. We perform in depth market analysis, which includes talking to the local residents and potential customers. Many of these residents live in the rural communities for the purpose of not being a part of "the system". Secondarily, we take issue with CenturyLinks attempt to change the FCC's definition of broadband. The FCC determined what constitutes 'broadband" for purposes of the Map, and CenturyLink cannot change that definition by making up new and arbitrary performance criteria to suit its arguments.

Furthermore, CenturyLink assumes that WISP's are hamstrung in providing the bare minimum 768/200 speeds. On their exhibit D for Washington they make a point that the National Broadband Map NBM shows a far reaching territory that neatly follows county lines. I submit exhibits 2,3,4,5, and 6. These Maps are produced from the Washington State Broadband Office, and are readily available for free at their website wabroadbandmapping.org. This information is generated from WISP providers in Washington State that regularly report their customers by census tracker code and the level of service customers are getting.

Exhibit 2 follows the NTIA definition of broadband and clearly shows the vast majority of habitable land already has access to speeds of 768/200. The areas currently without coverage are mountainous regions and National Forests.

Exhibits 3 through 6 show the area with available download speeds of 3mbps, 6mbps, 10 mbps respectively, and finally a map overlay color coded to the available download speeds. This further refutes CenturyLink's assertion that the area in question is unserved with the bare minimum service of 768k/200k service.

To refute their claim that WISP's cannot add additional capacity to our networks by implementing 'micro relays". We have been following this model for several years with great success. Utilizing Motorola Canopy equipment with timing allows us to design and engineer our network to work very well in this environment. By strategically placing these micro relays, at a fraction of the cost of building a tower or renting space on a commercial tower, we are able to reach more customers for less money, thus achieving our acceptable return on investment. Our marketing efforts focus on those areas with the highest demand for service and bandwidth. Once a target site has been identified we can usually have the relay built and in operation within two days. One day is devoted to the site survey, and contract negotiations with the homeowner. The following day we are able to build the link, and usually hook up one or two additional customers already identified with our direct marketing efforts.

B.WISP line-of-sight coverage limitations

CenturyLink would have you believe that simply running the cable will allow them to service every customer. Due to the low population per acre, they will have to invest far more money to reach every customer with DSL service than a WISP provider would. Hence, their request for CAF monies to build out the infrastructure, rather than utilize their own resources and capital.

While line of sight is an issue we have to deal with, we feel confident that we are reaching the maximum possible number of customers with the investment of our own capital. Secondarily, we custom build

solutions for customers that do not currently have line of sight to a tower, including building smaller point to point systems to reach customers that want our service.

Our sister company Priest Lake Broadband, LLC dba MooseBytes, operating in and around Priest Lake is a testimony to our resilience and ingenuity. While this is in Idaho, it is a perfect example of our ability to deal with line of site in these remote rural communities. Priest Lake sits in the middle of the Kaniksu National Forest, which is densely populated with trees. We have designed and built five primary tower sites that feed many micro relays all around the lake (see exhibit 12). Utilizing low frequency 900MHz Access Points and Subscriber Radios on Yagi Antennas we are able to service customers up to one mile through this dense forest terrain. Exhibit 13 shows an Access Point, mounted on a tree facing the forest. Exhibit 14 is a 900 Yagi Antenna facing directly into the middle of the trees. This link is approximately 1.1 miles from the micro relay. However, the driveway to reach this residence is close to 3.5 miles from the road.

While it is doubtful CenturyLink would be able to provide this customer scenario with service. If they did, it would require spoiling the views and vistas the residents and vacation home owners of Priest Lake have paid top dollar to enjoy. With the addition of TV Whitespace at lower frequencies and greater power, we will be able to increase the effective range of our access points.

As discussed earlier we are constantly talking with potential customers in our service area and beyond. This is how we strategically build out our network and compete in the real world, rather than taking public funds designated for areas that have no access to Internet and overbuilding existing WISP's that are serving those households.

Regarding the interference issues suggested in their petition. I believe the WISPA statements have been taken out of context with regards to the extreme rural communities we operate. There are far fewer interfering issues in these more rural settings. It is true that there may be some interference issues on the primary towers, however the coordinate and cooperate rules we follow in the unlicensed spectrum seems to be working well.

C. High WISP Prices

Comparing WISP pricing for Internet services vs. ILEC pricing is like comparing apples and oranges. ILECS receive millions of dollars of USF and CAF monies that they do not need to generate a return on investment. Secondarily, CenturyLink advertised pricing is dependent on the subscriber bundling Services, which requires a full residential package allowing them to shift pricing from the Internet service over to their core business service in the land line phone. Bundling VOIP with our Internet service can cost as little as $19.95 per month. When the services are combined the total cost to the consumer is relatively the same. Since our business models are different, our pricing is reflected in this difference.

Another unique aspect of our business model is that we do not sell or rent the subscriber equipment to the customer. We retain ownership of the equipment and consider that equipment part of our network. This allows us to manage the subscriber radio as part of our network. Our pricing model is higher precisely because we do not get the free government money. The pricing model takes into account not only current operations, but sufficient profit to continue growing our network. Our future capital expenditures budgets take into account the newer technology we will deploy to provide our customers not only the bandwidth they desire, but level of customer service they have come to expect and enjoy. As we make improvements to our network, this often necessitates replacing the subscriber equipment on the home. Since we own the

equipment, we do not charge the customer for the upgrade, we simply swap out to the newer subscriber equipment. CenturyLink relies upon the USF and CAF dollars up front.

We emphatically take issue with their assertion that WISP Internet service is far lower in quality or reliability as they suggest. Based on pure Internet pricing, there is no doubt that CenturyLink is the low cost provider in our service area. As pointed out earlier, they have the lowest customer satisfaction in the fixed line industry (Exhibit 1). If price is removed from the equation, the only components are customer service, quality and reliability. If their quality and reliability were very high, there would be no issues for customer service to handle. One can assume that their quality and reliability are not as high as they claim, leading to such poor scores for customer satisfaction. Based on this, I believe the *quality adjusted* pricing is actually in favor of WISP's.

D. Stringent WISP data caps

I can only speak for our organization as I am not privy to the other providers in my area. Wired or Wireless, Inc. has never had any form of data cap on any customer on our network, nor have we ever imposed overage charges on our residential services. While we do employ bandwidth management during peak times to ensure all of our customers have a pleasurable experience, so does Century Link.. While they claim that they have "customer-specific links in DSL-based broadband", they are still limited to whatever is supplying the DSLAM, and the relatively short distances in which DSL operates. In fact, right from their own website congestion management policy they employ congestion management as well as excessive use management (Exhibit 11).

Conclusion

I believe CenturyLink's request and claims are baseless and unwarranted. Granting this waiver will allow them to build the infrastructure to provide telephony services, however they will not proactively build the DSLAM infrastructure necessary to provide broadband internet to every potential customer.

Connect America Funds were designated to be used for unserved areas, and not to provide corporate welfare to large corporations seeking to put local small businesses out of business. We firmly believe we are serving these areas, and providing a level of customer service in our local market that CenturyLink can obviously not match. We disagree with their analysis, assumptions and conclusions drawn regarding the rural areas we serve.

In these tough economic times and unprecedented trillion dollar budget deficits, it would be irresponsible to use public funds for anything other than its designated purpose. The unintended economic consequences would surely be the end of several WISP's in these areas along with the local employment they provide. This would surely exacerbate the already high rural unemployment rate.

It is our ardent belief that if CenturyLink truly believes that the customers are unserved in our area, they should put their own capital at risk and compete on a level playing field. I doubt seriously they are as committed to providing their broadband service, if they had to fund this expansion themselves.

William B. Geibel, Jr.
President
Wired or Wireless, Inc.

ACSI The American Customer Satisfaction Index™

Scores By Industry

Fixed Line Telephone Service

	Base-line	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	Previous Year % Change	First Year % Change
All Others	77	76	77	75	74	73	74	69	73	75	74	73	71	72	74	75	78	76	76	0.0	-1.3
Cox Communications	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	76	70	74	74	74	72	71	-1.4	-6.6
Fixed Line Telephone Service	**81**	**80**	**79**	**75**	**74**	**73**	**72**	**70**	**71**	**72**	**71**	**70**	**70**	**70**	**73**	**72**	**75**	**73**	**70**	**-4.1**	**-13.6**
AT&T	85	83	83	80	81	79	75	73	73	76	76	72	71	70	75	71	75	71	70	-1.4	-17.6
Verizon Communications								73	71	73	73	70	69	72	70	71	73	71	70	-1.4	-4.1
Comcast	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	69	67	69	67	68	69	67	-2.9	-2.9
CenturyLink	79	83	80	76	76	74	70	71	74	73	65	66	64	66	70	68	70	70	66	-5.7	-16.5
US WEST	77	76	74	71	68	67	64	#												N/A	N/A
SBC Communications	80	80	77	71	71	71	70	66	67	67	68	71	#							N/A	N/A
Pacific Telesis	81	78	80	72	#															N/A	N/A
NYNEX	79	79	75	66	#															N/A	N/A
MCI	75	75	78	72	74	73	70	70	70	67	70	70	#							N/A	N/A
GTE	76	72	72	68	65	63	69	#												N/A	N/A
Ameritech	81	79	77	73	70	66	#													N/A	N/A
BellSouth	83	83	83	78	78	76	75	74	74	74	73	70	71	#						N/A	N/A
Bell Atlantic	80	81	81	72	71	73	71	#												N/A	N/A
Qwest Communications								61	56	62	64	69	70	72	73	71	72	73	#	N/A	N/A

Score tables print best in landscape.

Legend

NA Not available
Company merger
† Company defunct
NM Not measured
^ Industry aggregated

Notes

ACSI releases industry results monthly and updates the national index quarterly. Baseline measurements are from the summer of 1994.

The "All Others" score for an industry represents the remainder of the total industry market share, less the market shares of the ACSI-measured companies. It is an aggregate of a representative number of customer interviews from each of potentially hundreds of smaller companies within the industry. Individual company scores within the "All Others" category cannot be derived without additional data collection (see "ACSI Services," or to generate your own ACSI score using the ACSI methodology, see "ACSI Monitor℠").

**The limited-service restaurant industry was not measured in 2004 due to a change in the quarterly measurement system that was in place at that time.

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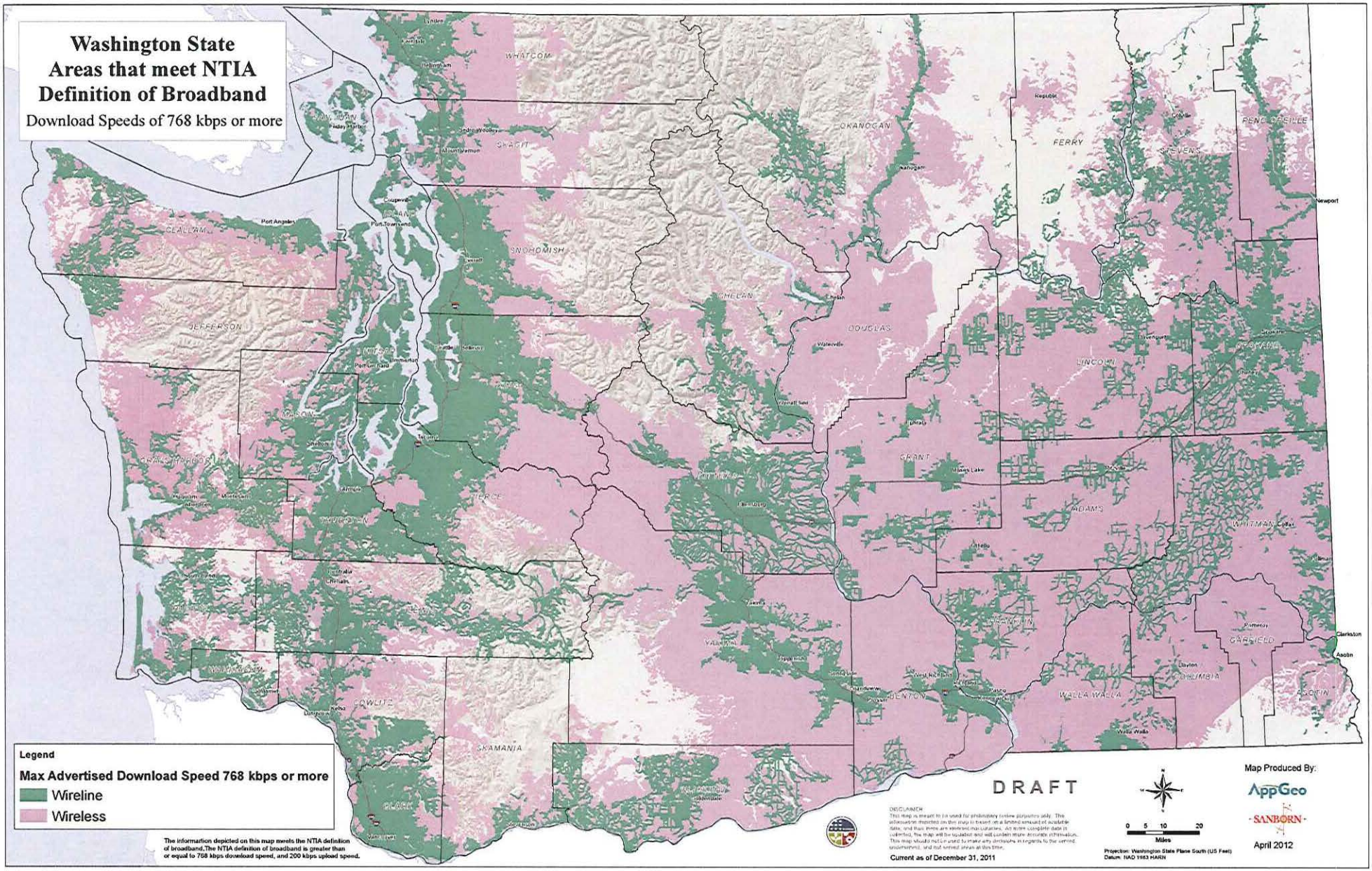
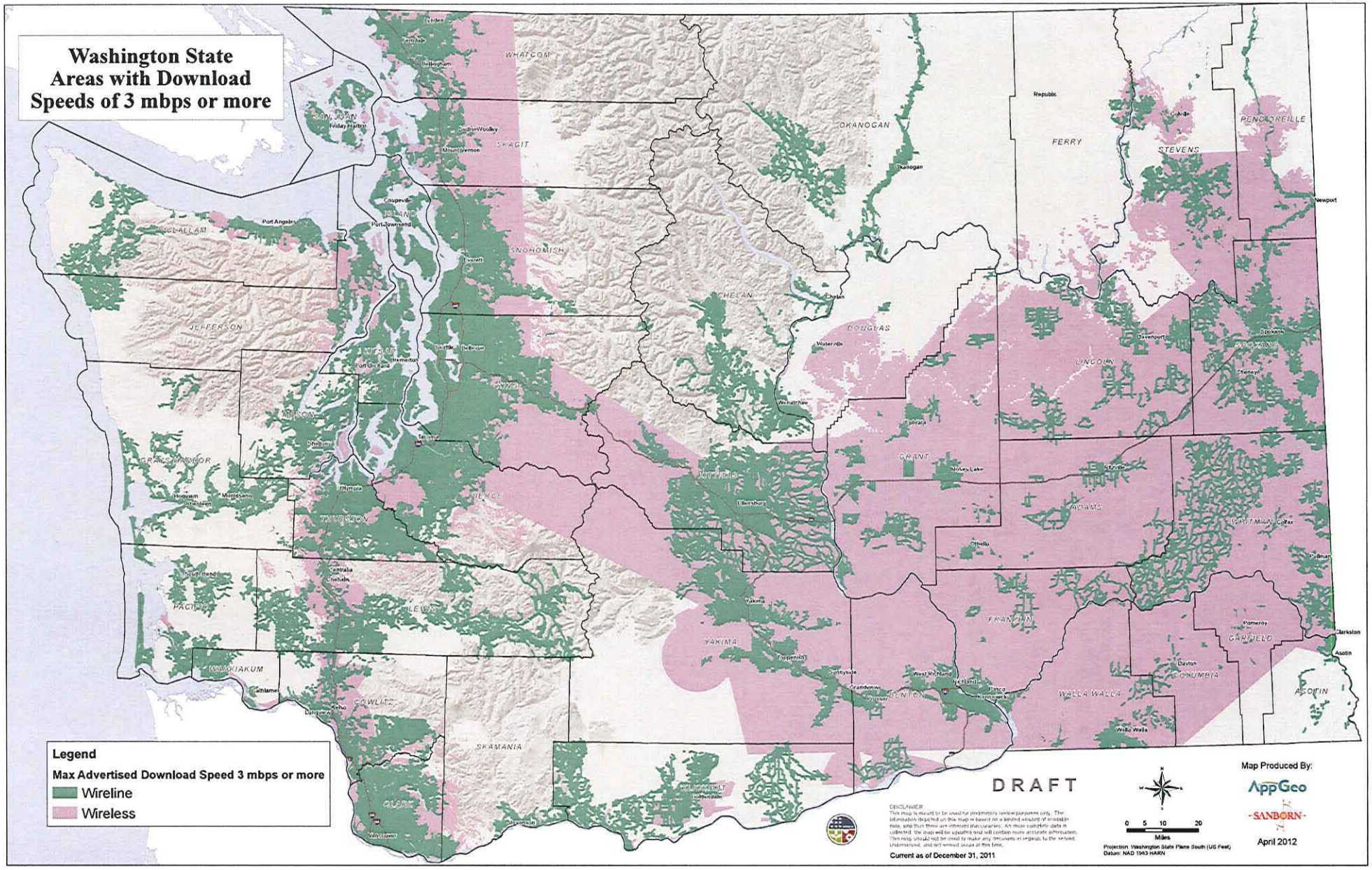
Exhibit 1.

Exhibit 2


Washington State
Areas that meet NTIA
Definition of Broadband
Download Speeds of 768 kbps or more
Legend
Max Advertised Download Speed 768 kbps or more
Wireline
Wireless
The information depicted on this map meets the NTIA definition of broadband.The NTIA definition of broadband is greater than or equal to 768 kbps download speed, and 200 kbps upload speed.
DRAFT
Current as of December 31, 2011
0 5 10 20
Miles
Projection: Washington State Plane South (US Feet)
Datum: NAD 1983 HARN
Map Produced By:
AppGeo
SANBORN
April 2012
WHATCOM
SKAGIT
SNOHOMISH
OKANOGAN
FERRY
STEVENS
PEND OREILLE
CLALLAM
JEFFERSON
ISLAND
KITSAP
MASON
GRAYS HARBOR
THURSTON
PIERCE
LEWIS
CHELAN
DOUGLAS
LINCOLN
SPOKANE
GRANT
ADAMS
WHITMAN
YAKIMA
KITTITAS
FRANKLIN
GARFIELD
COLUMBIA
WALLA WALLA
BENTON
ASOTIN
PACIFIC
WAHKIAKUM
COWLITZ
SKAMANIA
CLARK
Port Angeles
Port Townsend
Mount Vernon
Bellingham
Everett
Seattle
Bellevue
Tacoma
Olympia
Aberdeen
Longview
Vancouver
Wenatchee
Ephrata
Moses Lake
Spokane
Cheney
Colville
Newport
Kennewick
Richland
Pasco
Walla Walla
Dayton
Pomeroy
Clarkston
Asotin
Yakima
Ellensburg
Chehalis
Centralia
Ocean Shores
Raymond
Shelton
Kelso
Goldendale
Stevenson
Ilwaco
Forks
Sequim
Friday Harbor
Coupeville
Omak
Okanogan
Chewelah
Republic
Davenport
Ritzville
Odessa
Lind
Othello
Pullman
Colfax
Waterville
Bridgeport
Chelan
Leavenworth
Cashmere
Orondo
Mazama
Twisp
Winthrop
Tonasket
Oroville
Curlew
Kettle Falls
Ione
Cusick
Metaline Falls
Metaline
Northport
Inchelium
Nespelem
Coulee City
Soap Lake
Quincy
Moses Lake
Mattawa
Connell
Pasco
Prosser
Benton City
Kennewick
Richland
West Richland
Pomeroy
Dayton
Walla Walla
Clarkston
Asotin


Washington State
Areas with Download
Speeds of 3 mbps or more
Legend
Max Advertised Download Speed 3 mbps or more
Wireline
Wireless
DRAFT
DISCLAIMER
This map is intended to be used for preliminary review purposes only. The information depicted on this map is based on a limited amount of available data, and thus there are inherent inaccuracies. A more complete data is collected. The map will be updated and will contain more accurate information. This map should not be used to make any decisions in regards to the areas underserved, and not served areas at this time.
Current as of December 31, 2011
0 5 10 20
Miles
Projection: Washington State Plane South (US Feet)
Datum: NAD 1943 HARN
Map Produced By:
AppGeo
SANBORN
April 2012
WHATCOM
SAN JUAN
SKAGIT
OKANOGAN
FERRY
STEVENS
PEND OREILLE
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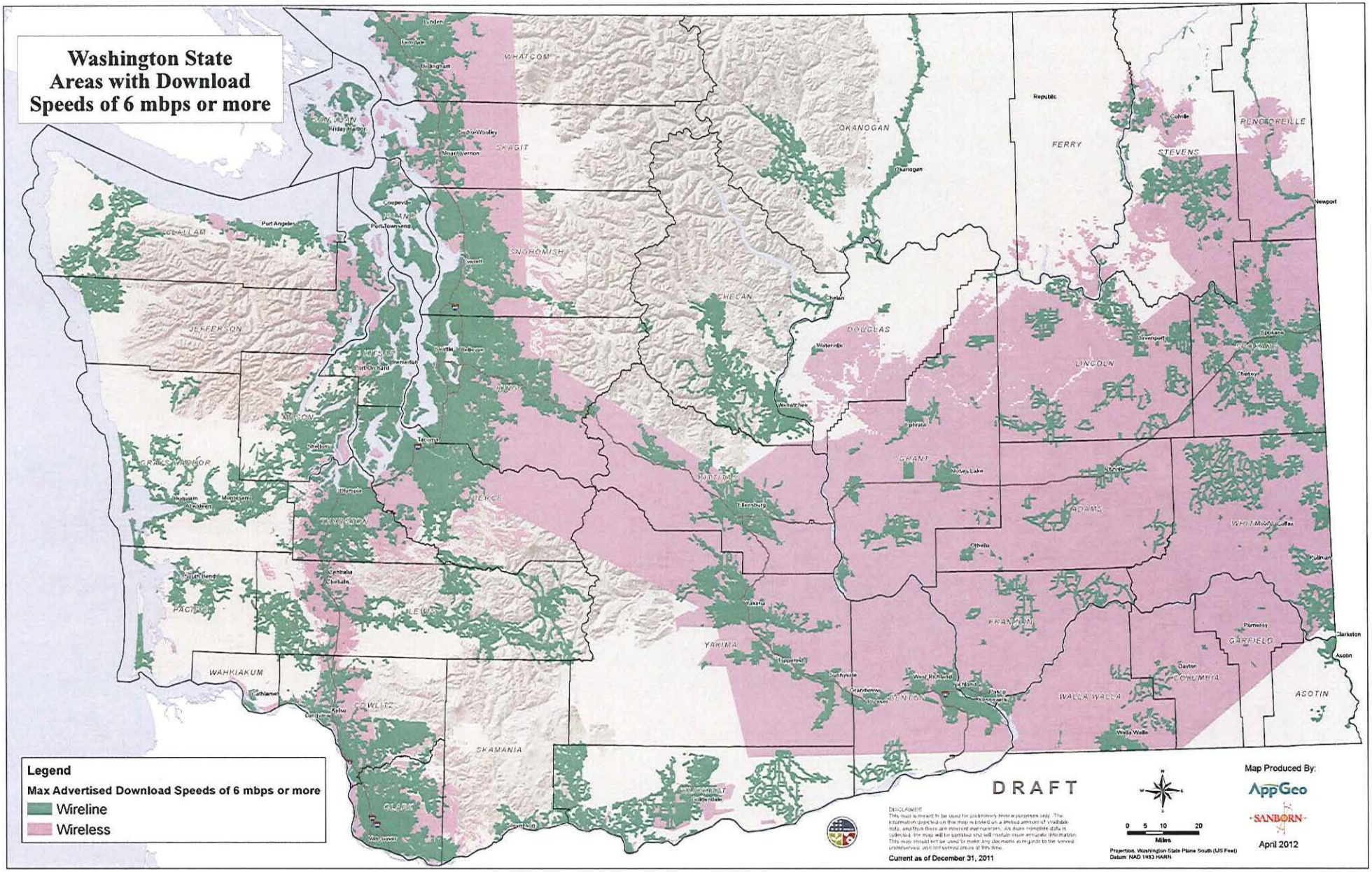
Seattle
Bellevue
Bremerton
Port Orchard
Tacoma
Olympia
Aberdeen
Hoquiam
Montesano
South Bend
Centralia
Chehalis
Longview
Kelso
Vancouver
Ellensburg
Yakima
Toppenish
Sunnyside
Grandview
West Richland
Kennewick
Pasco
Prosser
Wenatchee
Chelan
Waterville
Ephrata
Moses Lake
Othello
Spokane
Cheney
Davenport
Colfax
Pullman
Pomeroy
Dayton
Walla Walla
Clarkston
Asotin
Okanogan
Republic
Colville
Newport

Exhibit 3

Exhibit 4


Washington State
Areas with Download
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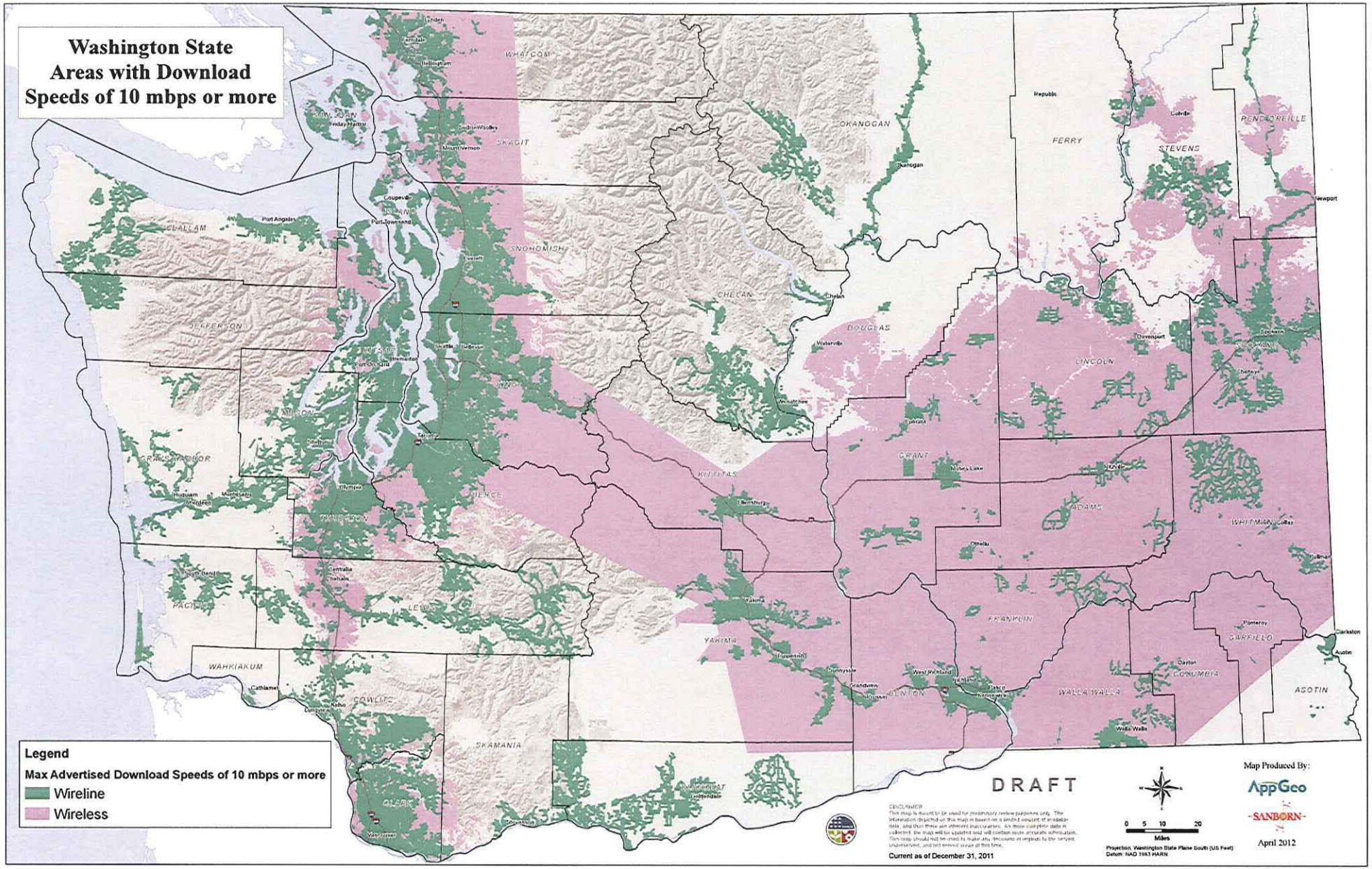
WALLA WALLA
COLUMBIA
GARFIELD
ASOTIN

Exhibit 5


Washington State
Areas with Download
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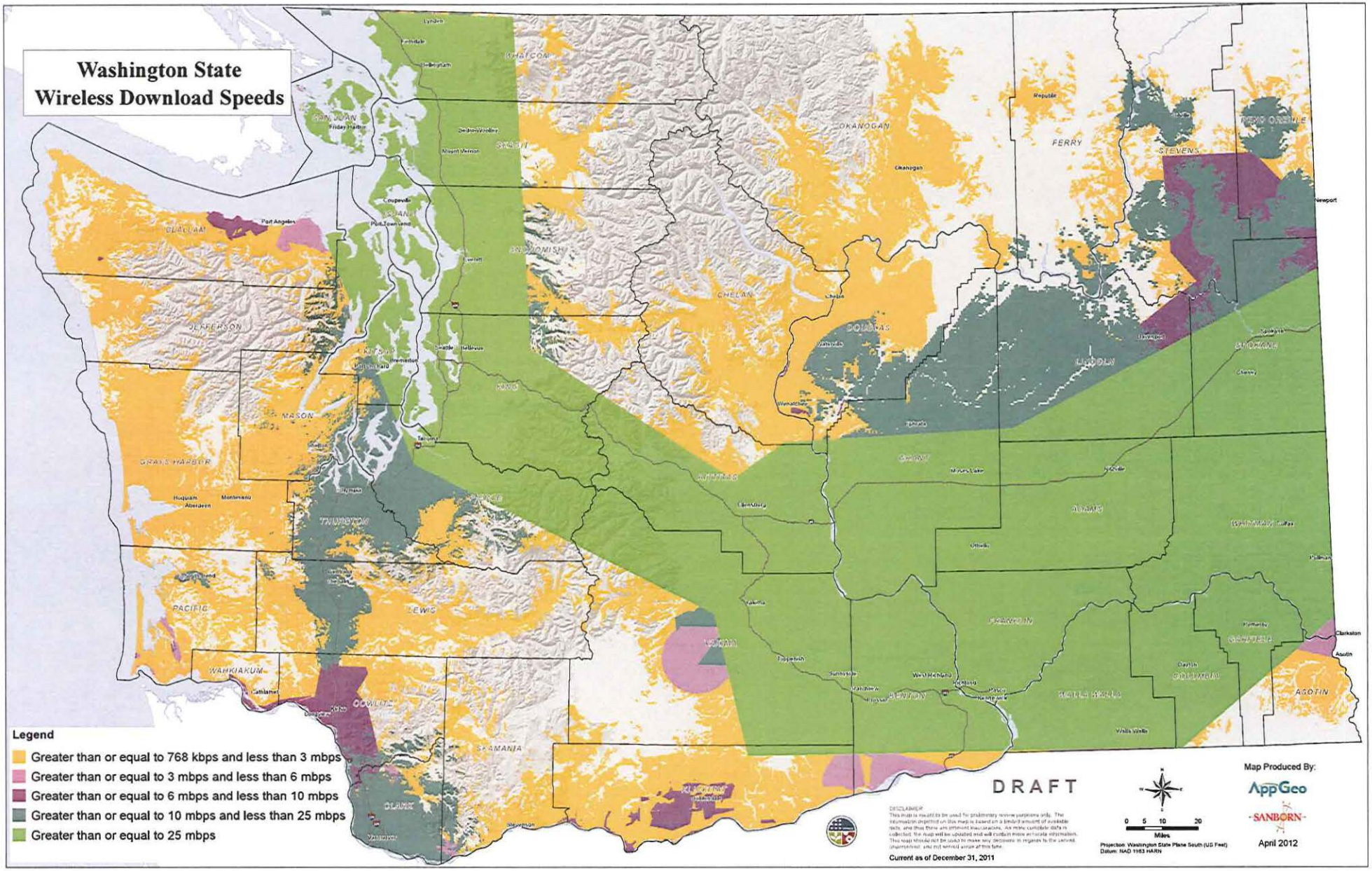
SKAMANIA
CLARK

Exhibit 6


Washington State
Wireless Download Speeds
Legend
Greater than or equal to 768 kbps and less than 3 mbps
Greater than or equal to 3 mbps and less than 6 mbps
Greater than or equal to 6 mbps and less than 10 mbps
Greater than or equal to 10 mbps and less than 25 mbps
Greater than or equal to 25 mbps
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Mount Vernon
Coupeville
Port Townsend
Everett
Seattle
Bellevue
Bremerton
Port Orchard
Tacoma
Olympia
Shelton
Hoquiam
Aberdeen
Montesano
Cathlamet
Kelso
Longview
Vancouver
Goldendale
Stevenson
Chelan
Wenatchee
Waterville
Ephrata
Moses Lake
Ellensburg
Yakima
Toppenish
Sunnyside
Othello
Ritzville
Reardan
Spokane
Cheney
Colfax
Pullman
Dayton
Pomeroy
Clarkston
Asotin
Kennewick
Pasco
Richland
West Richland
Prosser
Walla Walla
Newport
Republic
Okanogan

Wired or Wireless Inc — Air-Pipe Towers

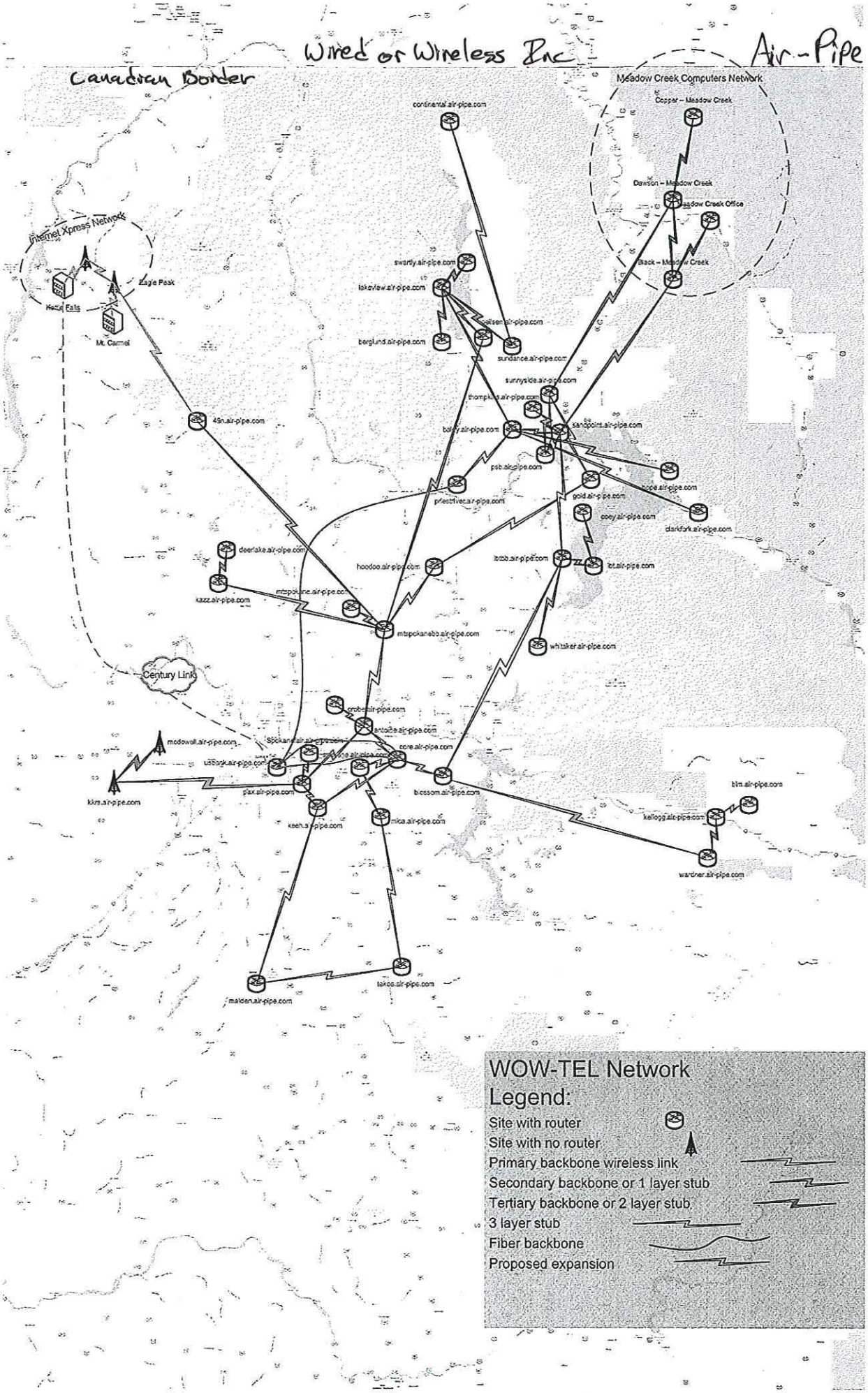


Exhibit 7

Wired or Wireless, Inc. Air-Pipe Service Area

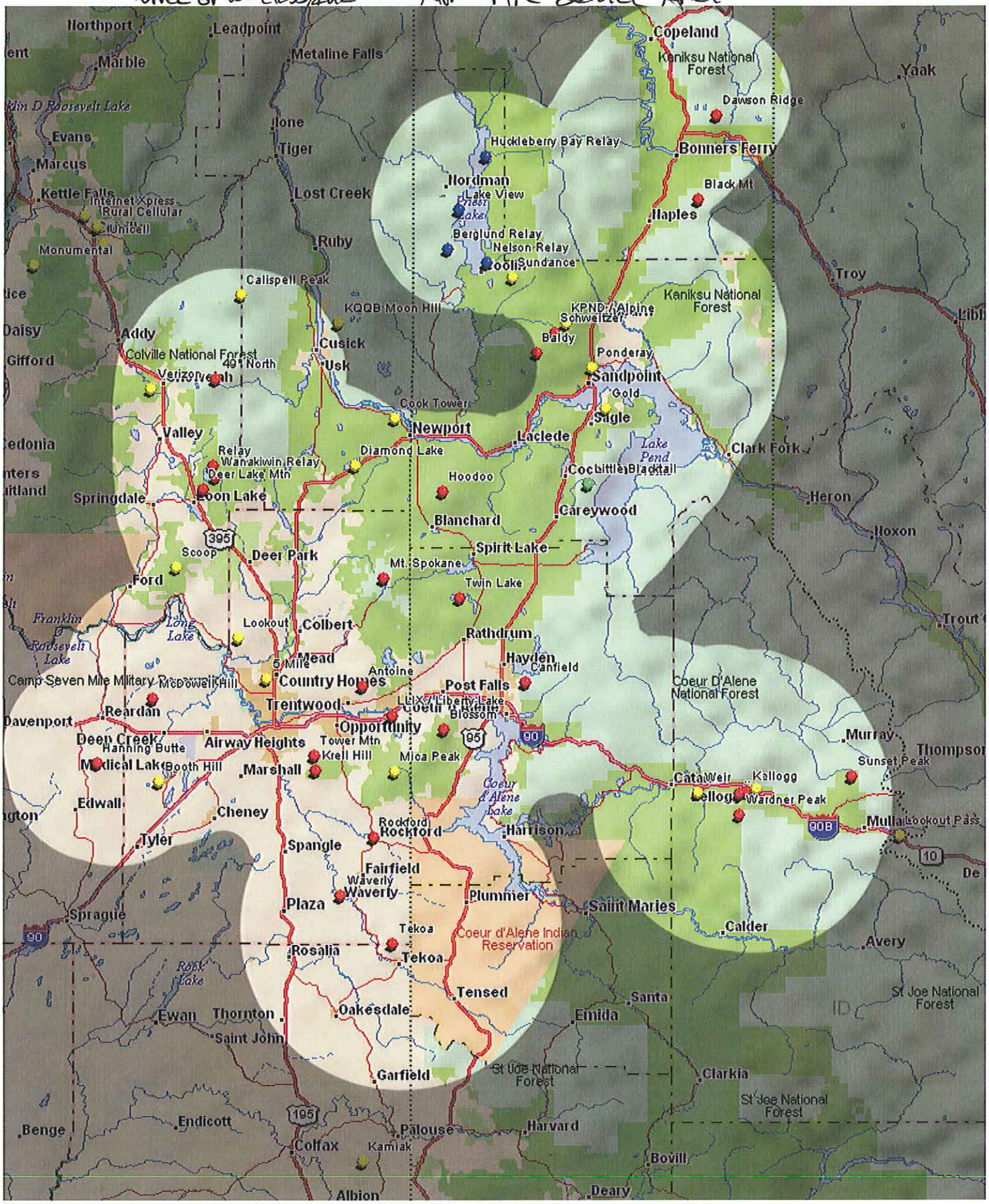
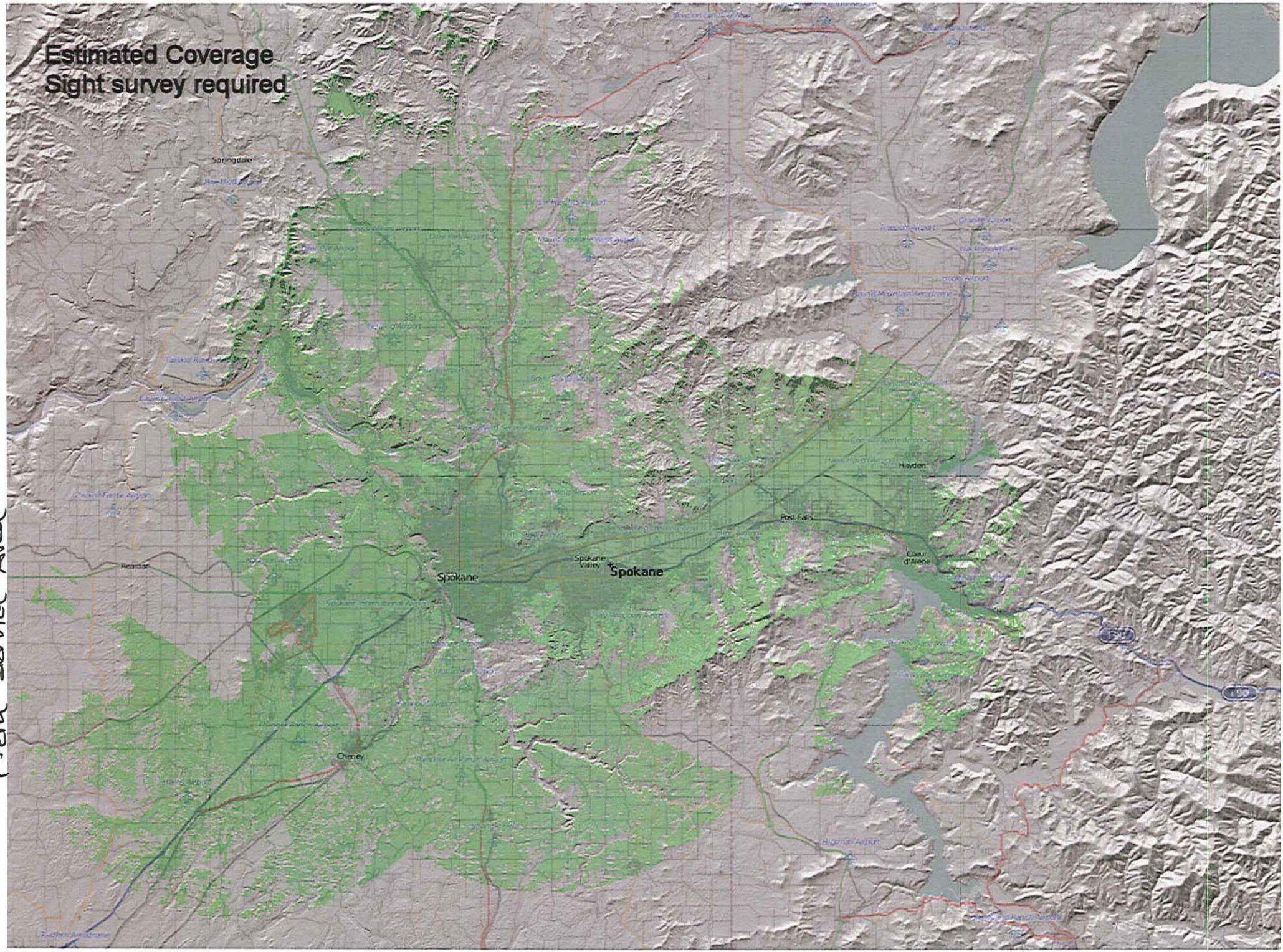


Exhibit 8

Exhibit 9



Ptera Service Area

Lougan Wireless Source Area

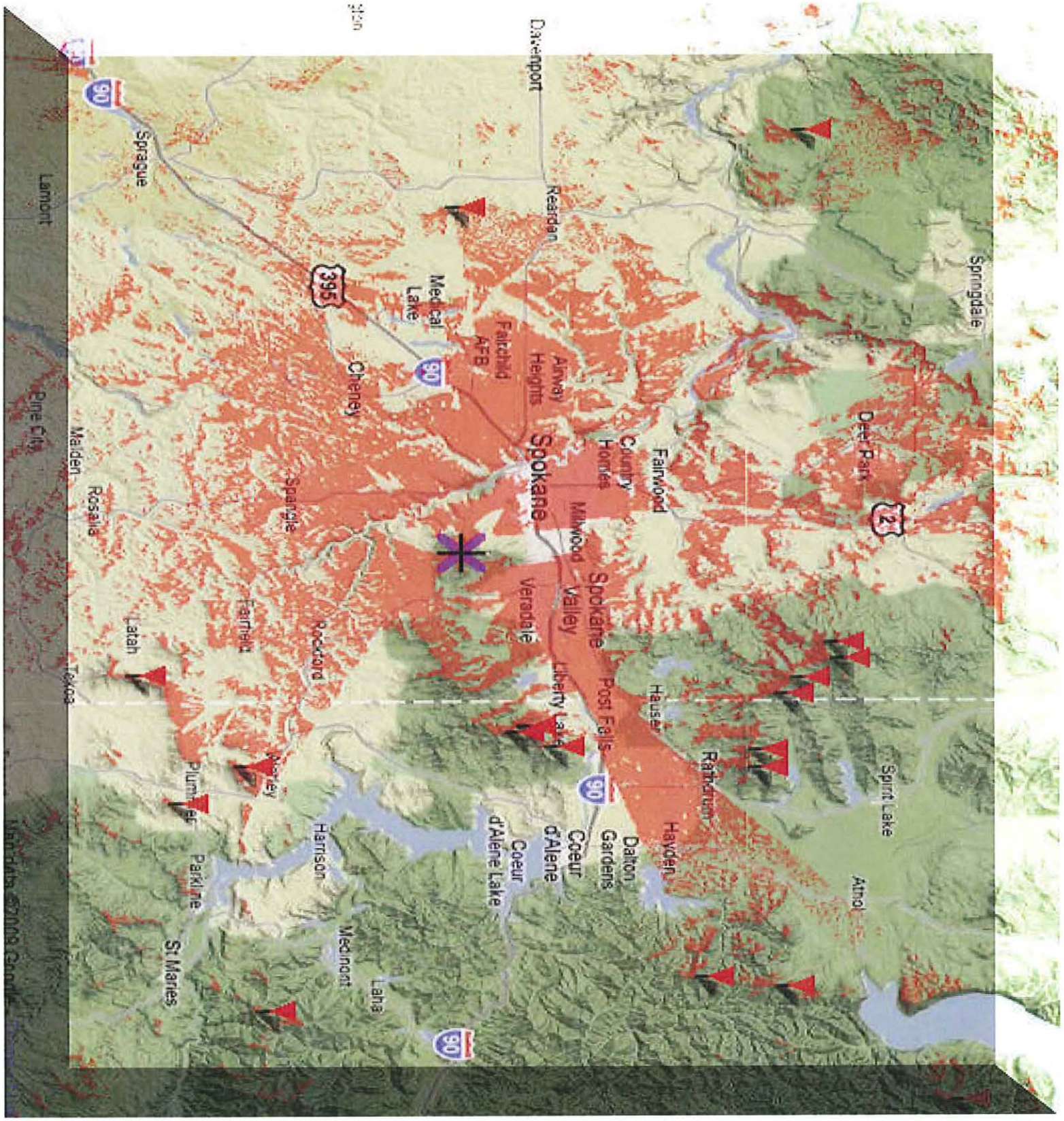


Exhibit 10

CenturyLink™

High Speed Internet Service Management

CenturyLink is committed to providing its customers with the best online experience. We follow industry-leading network security standards to ensure the integrity, confidentiality, and availability of our customer network and of our customers' confidential information. We view network management as critical to the services we provide to our customers. Managing our network well is one of the most important parts of our business. It ensures that our customers have access to the content and applications that they enjoy.

Network Practices

Congestion Management Policy:

CenturyLink Engineers monitor and proactively reinforce our network with additional capacity in areas where growth trends identify a need. If acute network congestion occurs, CenturyLink employs various techniques to ensure a positive customer experience and fair distribution of network resources.

Based on our experience, CenturyLink customers may encounter congestion, if at all, during the hours of peak usage - between 7:00 pm and 11:00 pm local time. During peak hours, the majority of residential customers are attempting to use the Internet simultaneously, giving rise to a greater potential for congestion.

When network congestion is identified, CenturyLink engineers employ various techniques to ensure a positive customer experience. Our network management techniques include ensuring that customer systems are not propagating viruses or distributing spam email, - i.e. by preventing virus/spam delivery to customer email accounts. We also reinforce our network with additional network capacity in areas where congestion is identified or as part of standard network engineering design plans. In some cases, we may limit the number of customers that may be served on a particular network node until additional capacity can be added. We also seek to ensure that our customers are not excessively using the service.

Customers in areas where CenturyLink provides Wireless Hotspots with CenturyLink's WiFi service should consult the applicable Terms and Conditions specific to Wi-Fi service for further information about these practices.

Exhibit 11

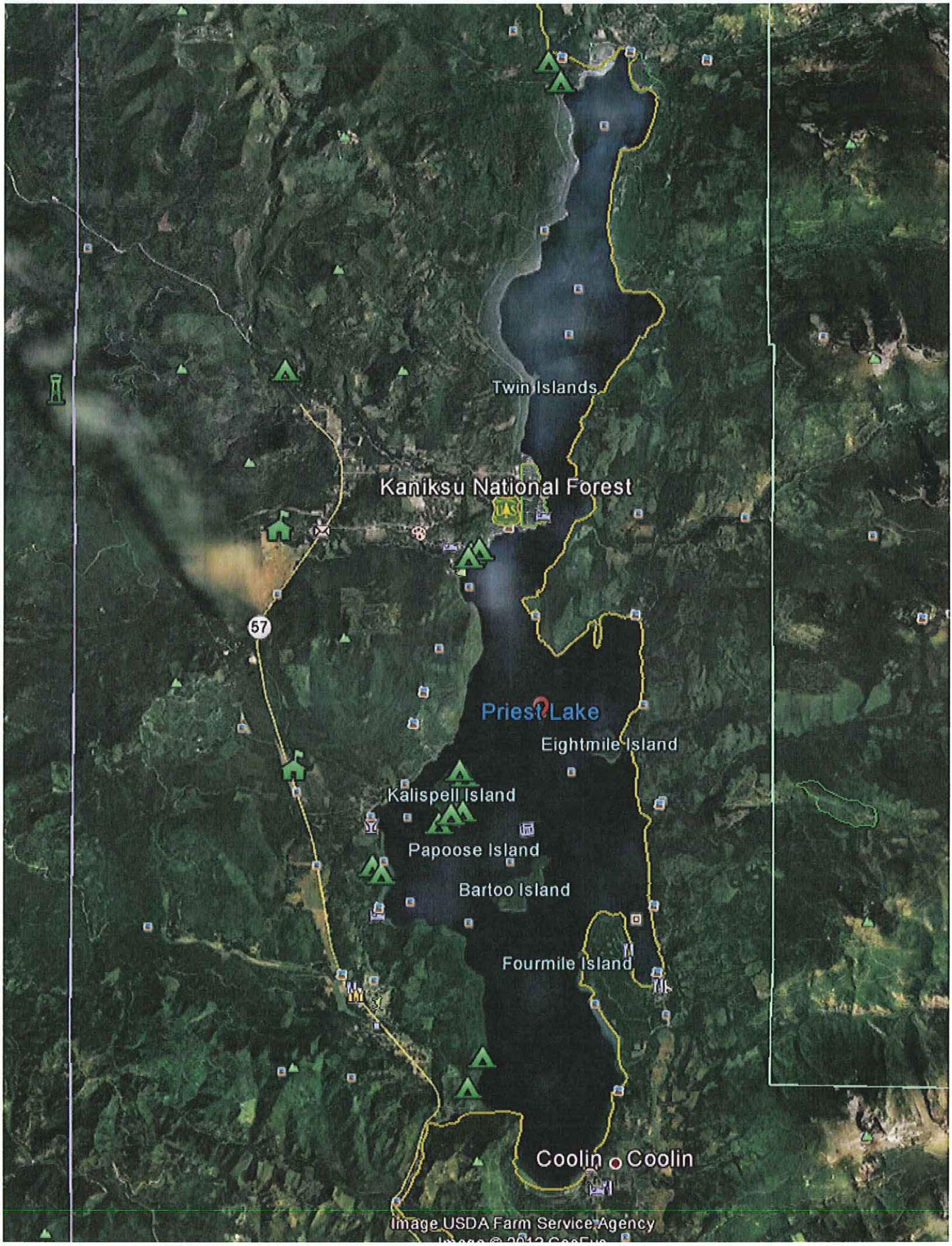

Twin Islands
Kaniksu National Forest
57
Priest Lake
Eightmile Island
Kalispell Island
Papoose Island
Bartoo Island
Fourmile Island
Coolin
Coolin
Image USDA Farm Service Agency

Exhibit 12

900 Mhz Access Pt in trees

Exhibit 13

900 Mhz on Yasi antenna pointing through the forrest.

Exhibit 14