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## Stevens County Commissioners

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July 12, 2018

National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue NW, Room 4887
Washington, DC 20230

**RE: 2018 NTIA mapping/data collection**

Attn: Douglas Kinkoph, Associate Administrator

This letter is in response to the Request for Comments (RFC) to improve the nation's ability to analyze broadband availability, with the intention of identifying gaps in broadband availability that can be used to improve policymaking and inform public investments.

Stevens County Board of Commissioners thanks NTIA for the opportunity to submit the following concerns and ideas for improvement. We have been working on this issue as a county and have found large stumbling blocks to finding good data; the FCC maps are inaccurate and frustrating.

*Question 1. Identifying additional broadband availability data:*
*1a. What additional data on broadband availability are available from federal, state, not-for-profit, academic, or private-sector sources to augment the FCC Form 477 data set?*

Crowd sourcing or open source data collection platforms such as those available through the Open Technology Institute (OTI) may be a resource that can be used to secure user level data and validate information provided by telecommunications providers to the FCC. Although a potential source of additional data, these require local technical expertise and server availability to implement and host. See section 1.b for additional challenges related to the OTI project in Stevens County.

Stevens County BAT identified these two sources:
1. FCC General Menu License Search – By Site/Frequency:
   https://fjallfoss.fcc.gov/General_Menu_Reports/engineering_search.cfm?accessible=NO
   This database contains licensed radio transmitter locations, not tower locations per se. There may be more than one transmitter on a tower and conversely there may be a transmitter and no tower. BAT identified the locations of existing installations that could possibly be used to deliver broadband to surrounding users. It can provide regional data about the lat/lon location, radio service, licensee name, etc. The data is returned in a comma-separated-values (.csv) format and can be loaded into a spreadsheet where further formatting and sorting can be done to extract the data of interest (licensee name, radio service, and lat/lon location). Data of interest was used to create a formatted file (.gpx) to import into a mapping program. Stevens County Information Services was able to create a layer in their GIS database.

2. The Antenna Structure Registration – Registration Search:
   http://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistrationSearch.jsp

***1b. What obstacles—such as concerns about the quality, scope, or format of the data, as well as contractual, confidentiality, or data privacy concerns—might prevent the collaborative use of such data?***

The population of Stevens County Washington is 45,000, with the majority of Stevens County residents living outside of the incorporated cities. The rugged and mountainous topography in Stevens County precludes a one-delivery-method-serves-all approach. This makes it difficult to build a pure private sector business case for broadband but also hard to secure data.

The 2012 ARRA-funded Stevens County Local Technology Planning Team (LTPT) conducted a community survey which included an online speed test that mapped to the Washington State Broadband Map. This was difficult to get people to participate, it was expensive, it provided inadequate data, had challenges because of low speed timeouts, had to add an extra step to find longitude and latitude to overcome rural road naming systems. And finally, those that do not have broadband were unable to take the speed test.

Based on participation by the Stevens County Spokane Tribe Broadband Action Team (BAT) in the NTIA Broadband Connectivity Assessment Tool (BCAT), we identified the following obstacles to current data collection by the FCC. SC/ST BAT was one of fifteen teams in the country that served as a co-designer and beta tester. During the project, BCAT provided the team with FCC and other publicly available broadband data for review and analysis. A key finding was that the current national broadband map is telling the wrong story, it does not match Stevens County broadband availability. According to the newly released December 2016 FCC data set, Stevens County is considered 100% covered AND at speeds that our research indicates may not be available anywhere in the county. Further investigation led to these discoveries:

- Wireline and wireless providers file the Form 477 every six months but the lag time between submittal and public availability is significant, sometimes taking almost a year.
- Based on current reporting requirements, providers indicate service areas, even where service could be available without an extraordinary commitment of resources.
- A provider that reaches one address in a census block can report coverage of the entire block. This is especially challenging in rural areas where census blocks can be greater than two square miles.
- Provider advertised speeds are reported at the census block level but may not be available anywhere in the block.
- Due to lack of standard definitions and reporting methodology, maps often are inaccurate and difficult to verify service.
- Inaccuracies in FCC and other federal broadband data can negatively impact the ability to apply for funds. Once funding is provided for an area it is considered covered, regardless if the provider completes the project.

In 2016 and 2017 the Stevens County Spokane Tribe Broadband Action Team (SC ST BAT) partnered with our Washington State Office of the CIO and the Open Technology Institute (OTI) on an open source online data collection project to test broadband speeds in the County. The tests were advertised at a free Technology Expo held on November 3, 2016, posted on social media and promoted through SC ST BAT members such as Stevens County, Stevens County Library System and Washington State University Extension. User feedback indicated that test hung on satellite connections resulting in timeouts or reporting seemingly incorrect values, geolocation information was not working on some Internet browsers and of course, those locations that do not have internet were unable to take the test. These challenges resulted in

frustration from users and given the time, expertise and expense to host the service, the project was discontinued in 2017.

*Question 3. New approaches: Are there new approaches, tools, technologies, or methodologies that could be used to capture broadband availability data, particularly in rural areas?*

We support Washington State's recommendation: "Local technology planning teams (LTPT) have been the consistent hallmark of policy recommendations by Washington state analysts for many years. Local teams often bring to the table data and trust relationships that can overcome barriers, and they have proved to be resilient preservers of knowledge and capacity when funding at the state and federal level is short." These local teams are critical to identify, validate and design the true needs of the region. The ARRA-funded LTPT was the backbone of our reignited Broadband Action Team.

*Question 4. Validating broadband availability data:*
*4a. What methodologies, policies, standards, or technologies can be implemented to validate and compare various broadband availability data sources and identify and address conflicts between them?*

Mapping Recommendations previously determined by the SC/ST BAT:
1. Bolster the accuracy of the national broadband map and data collection.
    a. Standardize collection methodologies to avoid provider interpretation of reporting instructions.
    b. Require more granular data than current census block reporting (zip code, number or percentage of addresses covered, lowest and highest advertised speeds, etc.)
    c. Implement a data validation process.
    d. Create a streamlined process for the public to report possible inaccuracies and require a more rigorous process to review that input and incorporate feedback.
2. Make the data and information available and more easily usable by a wider audience (local, state and federal policymakers, researchers, community members, etc.)
    a. Release data sooner (December 2016 data was not released until November 2017.)
    b. Release data files county-by-county instead of state-by-state. Datasets are HUGE downloads even as compressed files; one set of downloaded Stevens County dataset was 36,399 lines.
    c. Provide sample codes, tools, training and other resources to help broadband stakeholders turn raw datasets into usable formats to better understand the wealth of data gathered in order to analyze and make data-driven informed decisions about broadband investments.
3. Federal funding should be provided to unserved and underserved areas based on accurate maps.
4. Collaborate with other jurisdictions to challenge or improve the map.

*4b. Do examples or studies of such validation exist?*

Colorado seems to have a solid example and their data appears to be accurate to the address level.

ARRA funded state map effort that included speed tests and comment posts. Since that funding has ended, the resources to do this are no longer available and it's too expensive for counties to take it over.

*4c. What thresholds or benchmarks should be taken into account when validating broadband availability, such as bandwidth, latency, geographic coverage, technology type, etc.? How can conformance to such standards be used to evaluate the accuracy of broadband data sets? How could those standards be used to improve policymaking, program management, or research in broadband-related fields?*

Census blocks are not accurate enough. Consider using the Zip+4 database from the USPS. ISPs already have that field in their billing database and it would provide the most accuracy possible.

Standardize definitions. Rural, underserved, and unserved all have differing definitions depending on which agency/provider you are talking with.

*5. Identifying gaps in broadband availability:*
*5a. What data improvements can the government implement to better identify areas with insufficient broadband capacity?*

Small, rural communities do not have the capacity or technical expertise to take advantage of the publicly available data sources. They are difficult to find and analyze. Make them more user-friendly and provide technical assistance to find, understand and know how to use the data. If data exists at the Federal level, it should be made available to local Broadband Action Teams so they can inventory all assets.

Any federal agency that has broadband assets or data should be required to make that information publicly available in a user-friendly format to the Broadband Inter-Agency Working Group and state and local governments as well as Broadband Action Teams. For rural communities, funding is needed to support Broadband Action Teams so they can participate in initiatives like the NTIA BCAT project, target local broadband initiatives to unserved and underserved areas and ensure areas are not overbuilt.

Thank you again for the opportunity to comment on this critical issue. Please contact Commissioner Wes McCart for any questions or clarification – (509) 684-3751 or WMcCart@stevenscountywa.gov.

BOARD OF COUNTY COMMISSIONERS
OF STEVENS COUNTY, WASHINGTON

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