

Co Chairs Steiner Hayward, Johnson, and Rayfield and members of the Joint Committee on Ways and Means, I am Steven Vance Director of Information & Technology Services at Lake Health District Hospital and Chair of the Lake County Broadband Improvement committee.

Thank you for letting me speak to you about the needs of Lake County and speaking on the behalf of the Citizens of South Eastern Oregon.

Our broadband needs are wide and vast. We have identified and determined the need for 10 broadband projects, totaling in cost of 34 million dollars.

We have several areas within Lake County that have little to no broadband coverage, such as Christmas Valley, Summer Lake, East and North Lake areas. Lake County faces Life Safety issues with our 911 systems failing due to a lack of coverage or poor coverage. These underserved areas also have a need for improved broadband services helping with education, telemedicine, and communications.

We have over 5 significant broadband outages a year, affecting everything from healthcare, banking, emergency services and other critical communications. For example, during some these outages only cash works at the stores, creating issues for our citizens, businesses, and visitors. Our Hospital has become more dependent on Cloud-based internet applications, which are essential to providing quality care and services to our patients.

In conclusion: The citizens of South Eastern Oregon would benefit greatly from these broadband improvements. Creating a resilient and redundant broadband infrastructure would improve the health, safety and education for all our citizens. Please see my submitted written testimony for additional information and details. Thank you for your time.

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Project List (Apply for these as their own separate application):

Title 7 Broadband for Remote Learning: Lake County currently has a section in the middle of the county without broadband services. Providing broadband through the middle of the county down Highway 31 would provide service to the public near Summer Lake. There are approximately 15-30 K-12 students who do not have broadband Internet options. There are also very limited wireless options along this stretch as well. Zayo's planned underground route between Paisley and Christmas Valley, is in the permitting phase and is scheduled to start construction at the end of 2021. The entire route (Umatilla to Reno) is scheduled for completion at the end of 2022. The project along Hwy 395 and Hwy 31 is the first of its kind supporting an underground route. This adds redundancy and resilience along the Hwy and existing aerial routes in the Southern part of Oregon. With this route, the Oregon infrastructure to support broadband will be enabled, so private and public network groups can support a higher level of service, and quality in the area. We also have a county resident who was awarded a FCC grant to provide broadband to households for this particular stretch.

Project 2: We are in need of a Simulcast system (radio microwave) to link all the repeaters together, with the end goal to fix the issue of officers not talking over each other. The GTRs need to be upgraded along with antennas, radios with an AES encryption, a K-Core for radio redundancy, a remote monitoring plan for the rural areas along with tower and site upgrades. Listed below as projects are opportunities that can be implemented with funding.

Project 3: The initiative here is to begin the process of redundancy for Lake County's E911 connections and what these paths look like when creating loops through the neighboring Harney County. The positive symptoms from this work are understanding the feasibility, design, and engineering involved to also connect several Harney County communities to High-Speed Internet.

Project 4: Lake County has the ability to get reduced cost per mile rates on our Phase I redundancy construction between Fort Rock and down through Christmas Valley and along the Hwy where Lake County Hwy meets ODOT roadway along Hwy 31. The reduced rates are accomplished by the timing of this deployment. You know that NexTier Consortium has won the RDOF funding to connect these towns and they are engineering these routes now. They have allowed you to share the underground path for the 43-mile route and install your pipe and 48F. (Chris Sugg with Snake River Solutions - if they ask who your contact is).

Project 5: Aiding Christmas Valley's Library needs, which are growing with the town, to finalize the construction work necessary to acquire a plot of land in the town and place a modular facility focusing on digital connections and public wifi access. Since the current library is renting, and there is a need to move and build new in the town but the budgets cannot accommodate this demand for change. This is a great opportunity to create a digital hub for this largely rural community to utilize for generations to come.

Project 6: The long-haul fiber deployment here is the extension of many fiber-optic points within Lake County. The need for extensive E911 coverage is crucial and ever-growing, especially in the northern part of Lake County which is primed for additional developments. The Sand Dunes, alone, have acquired massive popularity in the last few years and these areas are only becoming more popular. So making sure coverage in these areas for our first responders is of the utmost importance. With the miles constructed, we have at least 25 E911 tower sites that would be able to get high-speed internet access to create closed government networks between these sites if you would like. The homes passed along the way would be able to get subsidized installations due to the money necessary to get to the tower paths. The homes passed is a positive symptom of this deployment need.

Project 7: This is a labor-intensive deployment to prepare critical Klamath and Lake County Government infrastructure for redundancy heading North, along Hwy 31 to La Pine. The project goal is to continue the 48F, owned by the County, up to La Pine and then connect to existing fiber in Paisley, Oregon.

Project 8: The effort here is to understand and design E911 tower structures along prepared fiber paths utilizing primarily Off-Grid power is a critical need in such remote areas around Lake County. To prepare Co-Op power connections to all facilities is problematic and not something to count on in many of these critical E911 coverage areas. A positive symptom from this study, design, and engineering is the ability to navigate what cellular providers may also want to get on board to save cost for the County and the State when the time comes to start construction.

Project 9: Connections to these facilities with the monthly recurring charges covered for the next 10 years.

Project 10: Massive fiber to the home distribution initiative to deploy symmetrical high-speed internet to a majority of the homes in Lake County that do not fall within FCC census block groups under the Rural Digital Opportunity Fund (or RDOF).

Estimated Costs:

Project 1: \$705,000 Non-recurring charge for a pair of dark fiber from Paisley to Christmas Valley (plus taxes and surcharges). \$7,537 per month over 60 months for 10G of Internet access for a total of \$452,220 (plus taxes and surcharges at 9%)

Project 2:

- \$150,000 per microwave - 4 are needed, so a total \$600,000
- \$100,000 per site for antennas - \$400,000
- Most of the GTRs (repeaters) are already in place, but with upgrades and needed additions for the system, so that both Law and Fire channels are separate - \$400,000
- ASTRO 25 K-Core - \$200,000
- Towers – \$200,000
- Remote monitoring plan for rural Oregon \$25,000
- Digital Radios with the required AES inscription plan at \$500 per radio - \$15,000

Project 3: 355 Miles - Harney-Lake County E911 Redundancy Ring and High-Speed Internet to the Home Feasibility Study with Design-Engineering: \$749,760

Project 4: 43 Miles - Klamath-Lake County 48F Redundancy - One Trench - Opportunity: \$2.94MM

Project 5: Christmas Valley Gigabit Digital Cafe: \$450,000

Project 6: 173 Miles - 47 Homes Passed - E911 & Homes - Fiber Internet Access - : \$16,397,251.2

Project 7: 100 Miles - Klamath-Lake County Hwy 31 ODOT Feasibility Study with Design-Engineering: \$375,000

Project 8: E911 Tower Structure - Off-Grid - Feasibility Study with Design-Engineering: \$325,000

Project 9: Fiber Connection and MRC for Paisley Fire Department, Christmas Valley Fire Department, and Christmas Valley Library (120 Month included 1GBx500Mbps): \$250,000

Project 10: 137.39 Miles - 660 Homes Connected - Five Corners - West Side - Fiber Internet Access: \$13.05MM