Broadband & Digital Equity Local Action Plan

Adams County

Photo Credit: Kyle Niehenke

June 14, 2023

Prepared by: Adams County Broadband Action Team

Introduction/State of the County

Adams County is in southeastern Washington and surrounded by neighboring Grant, Lincoln, Whitman and Franklin Counties. It is the 14th largest county among Washington's 39, covering 1,925 square miles[1]. Its population as of July 2022 is 20,961, with its largest city being Othello (8,725) followed by Ritzville (1,775)[2]. In 2021, Adams County, as a percent, had a younger age demographic than the state or nation. 35.7% of the county's population is under 18 years old.

The county is known for its agriculture and livestock, as wheat, corn, potatoes and apples are grown, among other crops. Adams County is one of the largest wheat producers in the state. Tourists and visitors are drawn to the town of Othello for the annual Sandhill Crane Festival, which brings thousands of bird watchers to the county.

31% of working residents are employed in the agricultural sector, followed by the government sector at 17%. Other demographics of note include:

Housing Units: 6,947	**Population:** 20,961
People under 18: 7,483 (35.7%)	**White alone:** 88%
People 65 and older: 2,420 (11.7%)	**Asian:** 1.4%
Female residents: 10,076 (48.7%)	**Hispanic:** 65.5%
HH with a computer: 18,634 (88.9%)	**Veterans:** 539
HH with internet service: 17,256 (83.4%)	**Foreign born:** 23.9%
Median HH income: $54,573	**HH w/language other than English:** 52.3%
Persons in poverty: 16%	**People under 65 with a disability:** 8.3%

Adams County is best described as a broadband desert. While a federally funded backbone owned by Northwest Open Access Networks (NoaNet) runs through the county, the small towns thirst for access to reliable broadband at affordable rates. As a participant of the broadband action team, the county seeks partnerships with the cities and ISPs to develop projects that leverage the existing federally funded infrastructure to bring broadband to the unserved areas of the county.

The purpose of the Adams County Broadband Action Team (BAT) is to actively advocate for the expansion of high-speed and accessible broadband to allow Adams County residents to be full participants in 21st century American life. It's time we get Adams County connected to real, sustainable and affordable broadband.

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[1] Adams County Profile (Updated August 2022), WA Employment Security Department

[2] Census.gov

Abstract

Broadband

- **Unserved/underserved locations:** Currently, broadband access is limited throughout Adams County. There is service provided in the larger towns of Othello and Ritzville, although much of the service provided access lacks reliability. There are many areas of the rural county that are unserved or underserved. With the increased prevalence and reliance on precision agriculture, many Adams County farmers and ranchers are struggling to implement the precision tools and utilize their capabilities due to the inability to connect to reliable broadband.
- **Previous successes:** The county has a funded project to bring broadband, via fiber construction, to Lind, Ritzville and the outskirts of Othello. Washtucna currently has a project to build fiber-to-the-home (FTTH) in city limits.
- **Key partners:** Adams County, Adams County Development Council, and LocalTel.
- **Obstacles:** Limited resources, varying density, construction costs and complex terrain are current obstacles to bettering the broadband service in the county. There are numerous wireless service providers in the region offering unlicensed wireless service.
- **Next steps:** The BAT will pursue additional funding, completing its current broadband projects and continue its efforts to improve internet access throughout the county.

Digital Equity

- **Areas of greatest need:** Residents who do not have access to the internet may seek service at community centers, schools or libraries, although these may be inaccessible for those who live in rural communities.
- **Populations with greatest need:** The aging/senior population may benefit from digital navigation training, as they sometimes have difficulty operating webpages and other online tasks. They are also the most vulnerable to online fraud and phishing.
- **Most prominent barriers to digital equity among covered populations:** Lack of accessibility and convenience for those who live outside proximity to resources. Alternate language options for households where Spanish is the primary language.
- **Most prominent barriers to the successful provision of digital inclusion services:** A lack of support staff to deliver digital navigation training to community members.
- **Next steps:** Expand the BAT's digital equity representation, seek funding to increase digital navigation programming and implement a community involvement and education campaign that is catered towards a bilingual audience.

Broadband Infrastructure Summary

I.   Broadband Base Map Review

The broadband base map revealed that the current state of broadband infrastructure is lacking. Figure 1 shows the service providers in the county. It's of note that most of the providers are located in Othello and Ritzville, the county's two largest towns. There are several other service providers present, although it is largely unserved in the more remote areas. Most of the speeds reported for the corresponding service providers are below 25/3.

The map does not report local service providers. Vyve, Ziply-bought Saddle Mountain Wireless, Desert Winds Wireless, LocalTel and T-Mobile do not appear on the map. Power companies, such as Big Bend Electric Cooperative, Inc., and Avista are also not reflected.
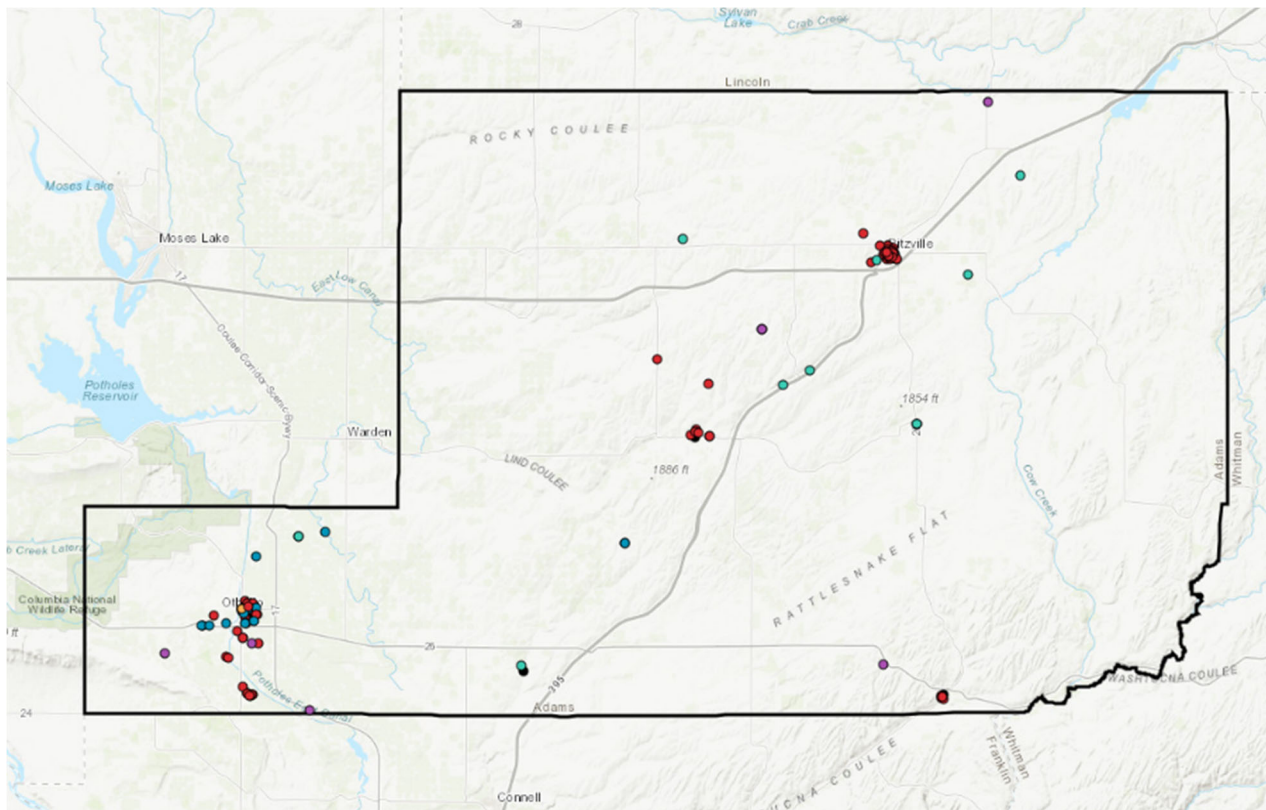

Figure 1: Service Providers

The Digital Divide Index, as outlined by Purdue, is a method of indicating levels of digital divide in an area. This means individuals do not have access to current technology needed to succeed in the 21st century[3]. The base map revealed that most of Adams County is considered to have a high digital divide (Figure 2). The area with the highest reported level (94.41) was approximately from Othello to Hatton. The high levels of digital divide reported in Adams County confirm the need for additional broadband implementation, which would greatly improve technological, social and economic involvement.
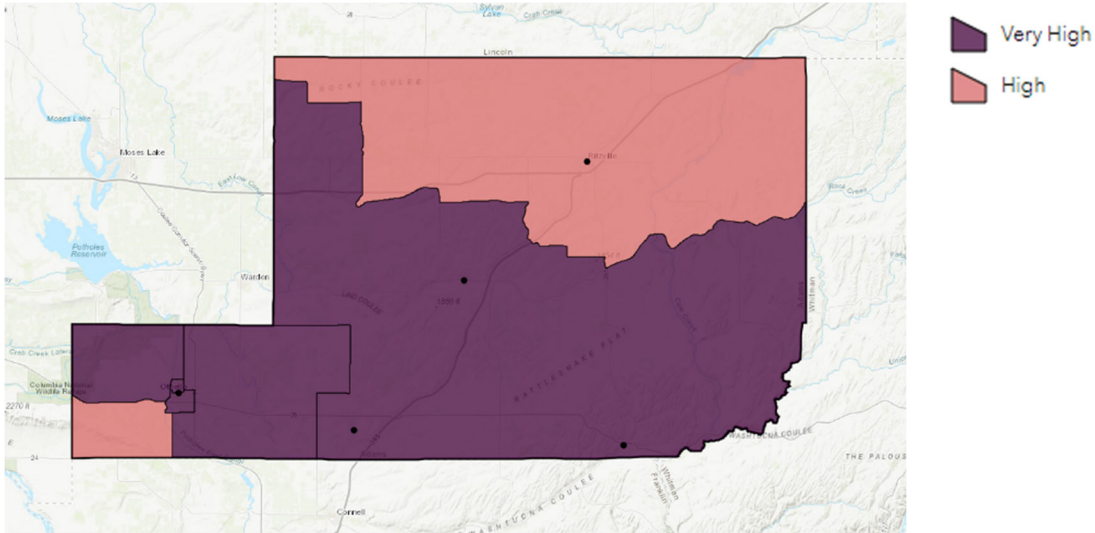

Figure 2: Digital Divide Index

[3] Purdue.edu

II.   Local Broadband Asset Inventory

Organizations currently serving our community with broadband assets:

ENTITY	ASSETS
Mid-Columbia Libraries – Othello Branch	Free Wi-Fi and public computers
Ritzville Public Library	Free Wi-Fi and public computers
Othello School District	Internet/computer usage
Lind-Ritzville Cooperative Schools	Internet
Benge School District	Internet
LocalTel	Unlicensed fixed wireless
Vyve	Wired internet service
Desert Winds	Unlicensed fixed wireless
Lumen	DSL service
Saddle Mountain Wireless	Unlicensed fixed wireless
Avista Utilities	Pole owner
Big Bend Electric	Pole owner
Inland Cellular	Cellular Towers
AT&T	Cellular Towers
Verizon	Cellular Towers

Upcoming projects that may allow for Conduit/Fiber/Infrastructure Placement

Adams County has a funded project to bring broadband, via fiber construction, to Lind, Ritzville and the outskirts of Othello. The County is requesting an expansion of the Ritzville project area to incorporate new annexations that expanded the city limits of the town. Washtucna has a funded project to build fiber to the home (FTTH) in the city limits, as well. There is a state highway project that impacts deploying FTTH in Ritzville. The county and fiber design team have contacted WSDOT to coordinate. The following maps show the project locations for each project.

A KMZ and shapefile of the proposed project areas can be found in the Google Drive file here:

 https://drive.google.com/drive/folders/1364oxE66R_KRVD-_L0pHlMcJ2Uw2A7R?usp=sharing

Project Areas around Othello, WA

This project will be located south and east of Othello, WA in Adams County. Othello's zip code is 99344.

Ritzville Project Area

This project will be located in the city limits of Ritzville, WA in Adams County. Ritzville's zip code is 99196.
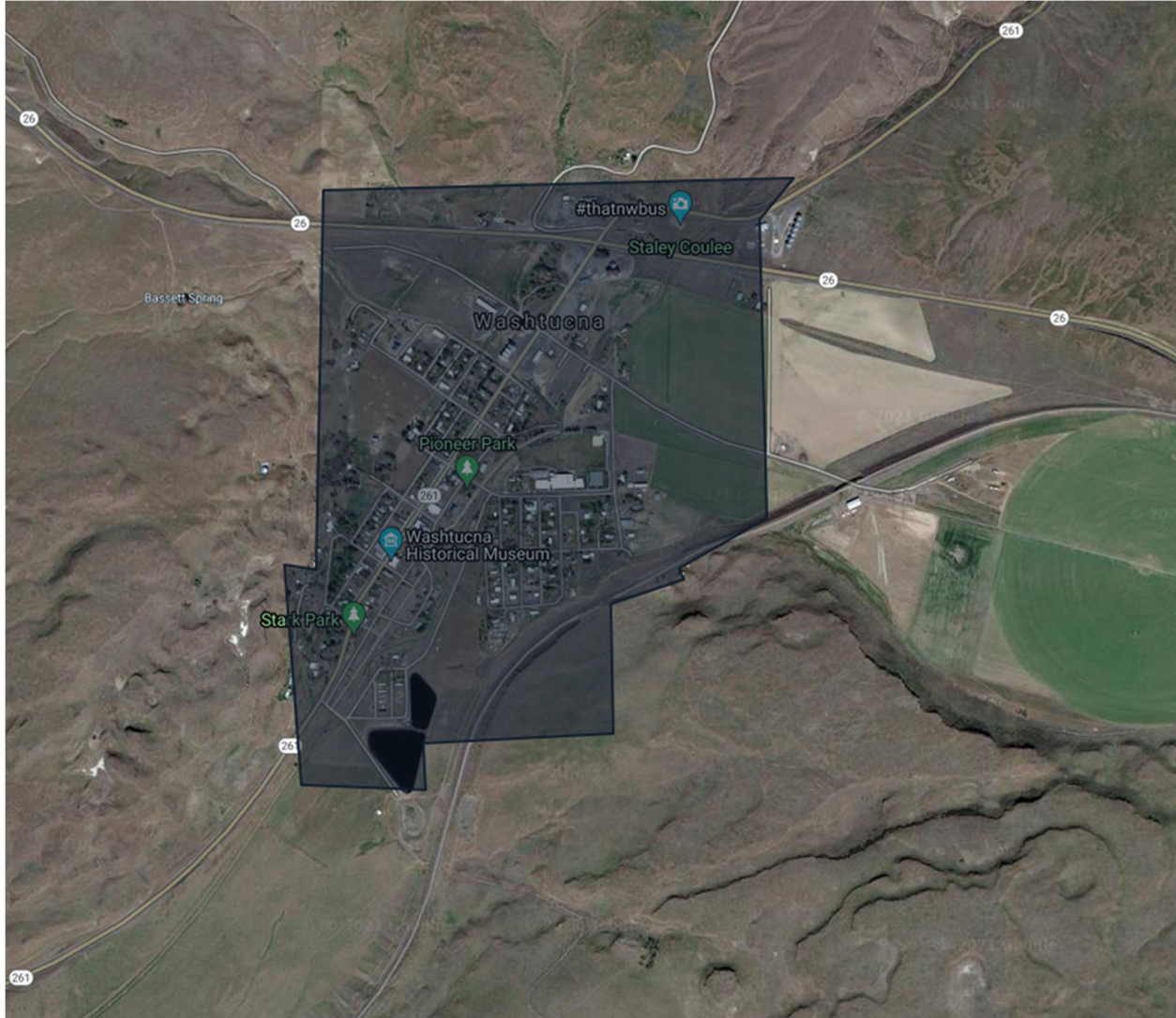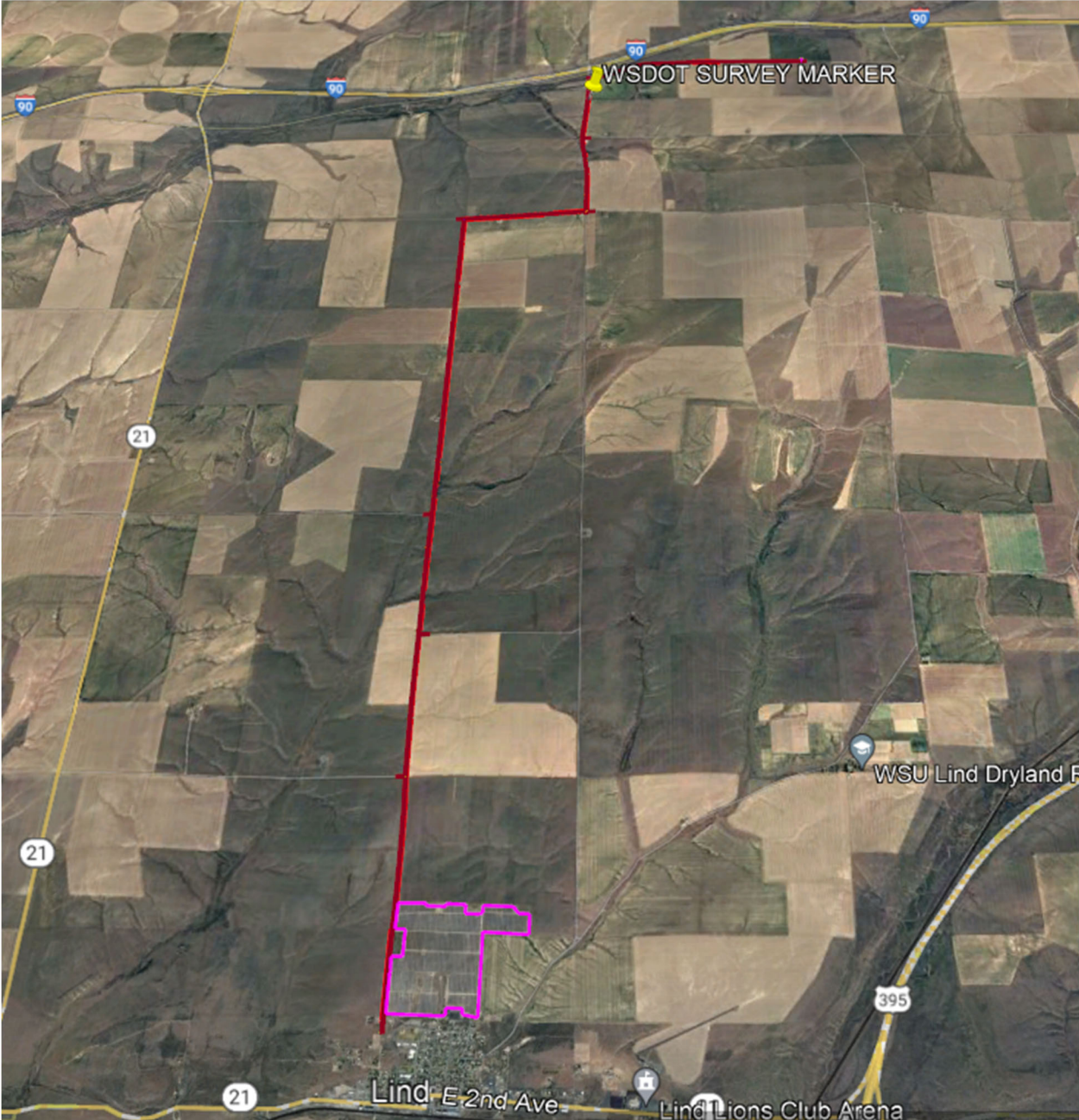
Lind Project Area

The project will be in the city limits of Lind, WA. Lind's zip code is 99341.

Washtucna Project Area

The project will be in the city limits of Washtucna, WA. Washtucna's zip code is 99371.

The map below shows the mid-mile path that connects the town of Lind to existing NoaNet owned fiber infrastructure. Future projects could build off this mid-mile to reach more rural residents along the path.

Community Anchor Institutions Survey

Institution	Satisfaction
Lind Senior Center	Satisfied
Wheat Land Communities' Fair	Not satisfied
City of Ritzville	Not satisfied
Town of Lind	Semi satisfied
WSU Dryland Research Site	Satisfied / internet does not connect with Pullman server
Ritzville Senior Center	Average satisfaction / WiFi is contingent on proximity to window
Othello Community Hospital	Not satisfied/switching providers

ISPs currently serving our community (potential partners for upcoming work):

National/Regional	Satellite
Century Link/Lumen	HughesNet
Inland Telephone Co.	Starlink
Charter Communications	ViaSat
Inland Cellular	
Startouch	
T-Mobile	
Ziply	
LocalTel	
Vyve	

Two providers responded to the ISP outreach requests: Century Link/Lumen and Inland Cellular/Emerge Technologies. Below is a summary of the responses received.

	ACP	Planned Expansion	Speeds/Pricing	Participation Interest	Willing to share files
Inland Cellular/Emerge	YES	NO	50Mbps/5Mbps -$50 - $70	YES	YES
Lumen/CenturyLink	YES	NO	10/1, 25/3, 40/3, 60/5	YES	NO

Although they did not respond to the survey, LocalTel and Vyve actively participated in the BAT and both are interested in utilizing the infrastructure that will be built by the WSBO funded project.

Organizations providing data for our community broadband map and details on current speeds/pricing

Organization	Notes on Internet Speeds
Lind Senior Center	Download 11.26 Mbps/Upload 1.5 Mbps / Century Link
Wheat Land Communities' Fair	No internet / access issues
City of Ritzville	60M/Century Link
Town of Lind	10M/Century Link
WSU Dryland Research Site	173M/Starlink
Ritzville Senior Center	20M/Century Link

III. Broadband Infrastructure Needs Assessment

Community Anchor Institutions that need improved services or where cost of services is too high

Several respondents who currently have internet access expressed a desire for faster speeds. For example, the Ritzville Senior Center has internet connection, although users must stand by the window to get service. Some respondents, such as Wheat Land Communities' Fair, lack access to broadband services entirely. This is an example of an institution that would benefit greatly from deployed broadband, as it hosts visitors on its property and operates event facilities that help foster the economy.
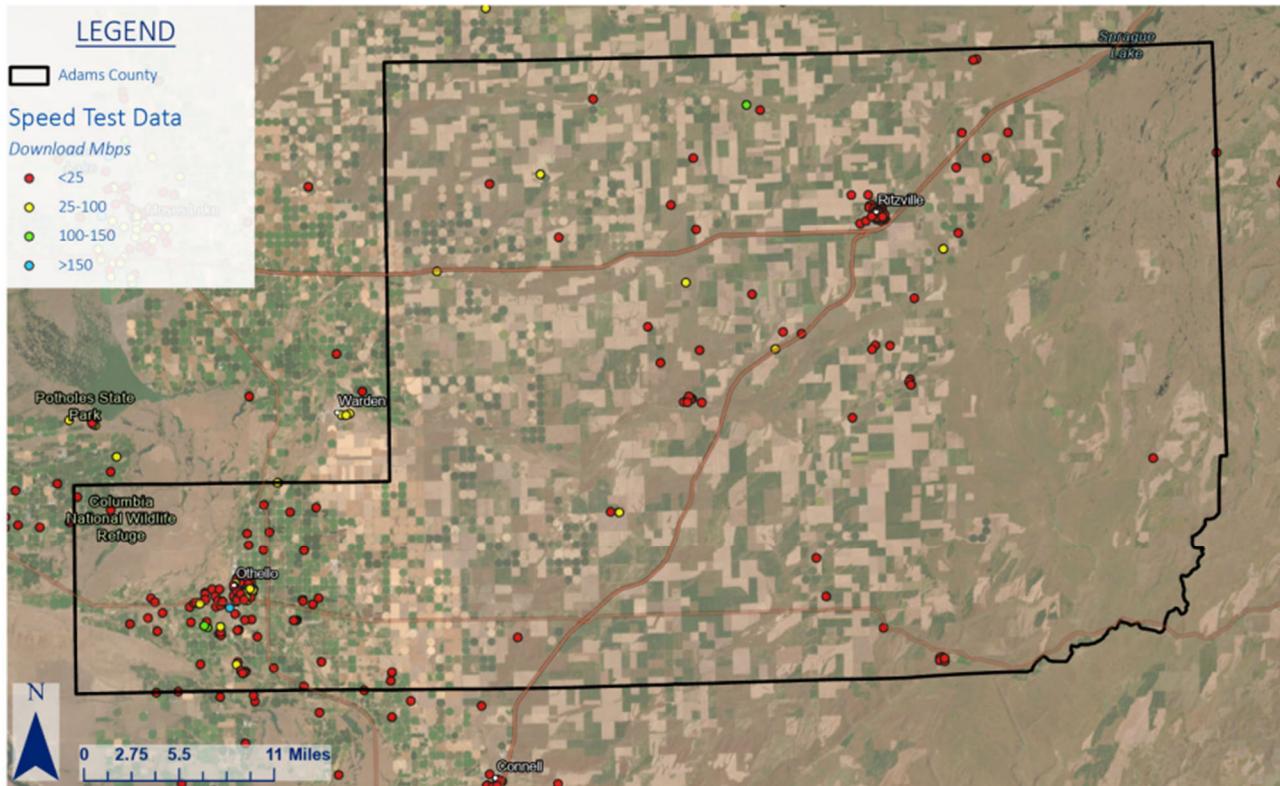
Areas lacking broadband

A study was conducted to determine Adams County's current broadband service status, combining data collected by Ookla, M-Lab, Microsoft, and compiled by the Federal Communications Commission (FCC) and Washington State Broadband Office. The county was determined to be classified as underserved as defined by the FCC. The commission defines an area as underserved when access to fixed broadband speeds of at least 25/3 Mbps is not present. Minimum requirements for speed, latency, usage allowance and pricing are listed as follows:

- Broadband at speeds of at least 10 megabits per second (Mbps) downstream and 1 Mbps upstream
- Network latency (the time it takes for a data packet to travel through a network) cannot be higher than 100 milliseconds round trip
- At least one plan offering with a minimum usage allowance of at least 150 gigabytes (GB) per month or a monthly usage allowance that reflects the average usage of a majority of fixed broadband customers as announced by the Wireline Competition Bureau annually, whichever is higher. Or offering a usage allowance that is at or above the usage level for 80 percent of their broadband subscribers if it is at least 100 GB.
- Service at rates reasonably comparable to rates in urban areas

The county would also be considered underserved by the Connect America Fund and Rural Digital Opportunity Fund.

A 2022 speed test conducted by the Washington State Broadband Office, seen below, shows the majority of speeds reported being under 25 Mbps (shown in red). Clusters of slow service in Othello and Ritzville, the county's largest towns, represent the larger issue of a lack of fast and reliable broadband coverage.

Areas where the cost of services may be too high for the average household

16% of the Adams County population lives in poverty. Othello and surrounding areas are noted on the base map as having over 23% of households in the area are at or below 200% of the Poverty Line. The map also reveals that the median income in areas surrounding Othello and Ritzville are between $35,000 and $50,000 yearly. There are several low-income housing options in Othello; these households are likely to need lower-cost service options.

IV.   Obstacles And Barriers to Broadband Infrastructure Deployment

Challenges to broadband deployment

Adams County may encounter challenges in deploying broadband infrastructure because of the county's location and demographics. The rural nature of the county increases costs because of the need to outsource construction workers and materials. Many of the contractors will likely travel from the Tri-Cities or Spokane, which may create barriers in collecting bids from contracting parties.

Communicating the broadband would also create a challenge, as many residents of Othello speak Spanish as their first language. This would require new deliverables to be created to connect with the county's Spanish-speaking population.

Financial gaps preventing infrastructure investment

While the county already has some funding to deploy broadband, there are opportunities to expand services that would require additional funding. The ability to deploy buried broadband is also contingent on funding support.

Workforce gaps

There is a company in Ritzville that supports power solutions in telecommunications colocation facilities. Generally speaking, fiber construction contractors will come from Tri-Cities or Spokane, the county's nearest largest cities. This workforce will have to travel and this will increase construction costs and may make bidding on projects in Adams County less attractive to bidders.

Policy barriers

The city of Othello has a policy that all new fiber must be buried. This is a significant cost to wireline deployments and requires additional funding support.

Community awareness issues

53% of the households in Adams County speak a language other than English at home. Othello, specifically, is a highly bilingual area, with the most common language spoken at home being Spanish. In communicating the adoption and navigation of broadband, it is crucial that both English and Spanish is used on the materials. Community awareness can be affected by the lack of materials and outreach currently available in Spanish. Members of the BAT or of partner institutions would need to dedicate time to developing new or altering existing materials.

Geographic and environmental issues

Rocky terrain inhibits underground construction in some locations, which drives up costs. Many rural homes built in the county are traditionally built in the valleys; this can render wireless solutions ineffective. The county is extremely rural, as well, which can act as a barrier to providing service to every resident in the county. With the increased prevalence and reliance on precision agriculture, many Adams County farmers and ranchers are struggling to implement the precision tools and utilize their capabilities due to the inability to connect to reliable broadband.

V. Potential Paths Forward

Planned expansion areas

Othello is a prominent area of the county that lacks reliable broadband service. This area, as well as rural zones around the county are the focus for implementation of broadband infrastructure. The towns of Bruce, Lind and Cunningham sit between the county's two largest towns of Othello and Ritzville; this path is a potential implementation zone.

Possible funding sources

State broadband funding opportunities include grant and loan opportunities facilitated by the Washington State Department of Commerce, Community Economic Revitalization Board (CERB), and the Washington State Public Works Board. Several awards are offered annually, while some are awarded on a continuous basis. These opportunities have the aim of providing broadband to rural and underserved areas in the state. Adams County is eligible for these funding opportunities with the completion of required applications and provision of supporting materials.

Local leadership

LocalTel is interested in expanding its services into Adams County. Vyve and other providers signed contingency agreements as part of broadband funding applications (Inland Cellular). BAT will continue its relationship with these service providers as broadband expansion projects move forward.

Workforce solutions

Adams County's location will be taken into consideration when planning for construction and implementation of broadband infrastructure. Efficacy of the project can be improved through comprehensive training of all employees involved.

Policy solutions

County could explore policies to install conduit during all road construction projects (Dig Once solutions). Big Bend Electric Co-op needs to update power poles. Developing policy recommendations that enable broadband deployment will be crucial.

Upcoming municipal or tribal projects where conduit or fiber might be deployed

A state highway project is happening adjacent to the Ritzville Fiber to the Home project. The highway development will impact the fiber project. The county and fiber design team are in contact with WSDOT to coordinate and plan.

Digital Equity Summary

I.   Demographic Base Map Review

The base map does largely reflect the demographics and resources of Adams County. Only 35% of county residents are white. 38% of residents are under the age of 20 and 35% of Adams County children live in poverty. It is evident that large populations are in need of increased reliable internet service, as well as resources to navigate the digital landscape. Deploying infrastructure to population dense areas of Adams County will have a positive effect on a significant number of children in poverty and Hispanic households. Pertinent data about poverty levels in the county are represented and should be taken into account while planning for deployment of broadband. While satellite internet is available, it can be too expensive for families and households under the poverty level to purchase. It is also important to note the high percentage of bilingual speakers in the county; most of these individuals speak Spanish as their first language. New or altered materials are required to connect with these community members.

Areas that appear to lack digital equity resources

While the county's school districts offer internet for students, community members who are not members of the school system may be unable to attain access to the internet via other local institutions. For example, the Lind Community Library and Washtucna Community Library are currently closed because of staff shortages. This means residents of these communities are not receiving opportunities for free, public Wi-Fi and computers through their local library systems. Libraries are important in providing the community with digital equity resources, so the closure of these two branches is detrimental to the residents who seek to use them.

Covered populations that are prevalent in our community

Adams County has a relatively low average aged population; most young individuals are able to navigate the digital landscape easier than those of older generations. 11% of the county's population is over 65 years old, which is a demographic which is likely the most needing comprehensive digital navigation programs. It appears that the Othello region is younger, while the remainder of the county has a higher population of residents over 65.

Those who live under the poverty line are also prevalent in the community, especially as these individuals are likely unable to purchase expensive internet services.

Othello has the highest population of individuals who speak English as a second language. The majority of these individuals speak Spanish as their first language.

Adams County has acquired state funds to remedy the conditions that have temporarily closed the local jail in Ritzville. The broadband connectivity at the jail has hampered staff and the

incarcerated individuals they serve from access to programs and training that will ready the inmates for the outside world upon their release back into society.

Local layers added to the base map more accurately reflect our community

Layers reflecting the demographics of the Adams County community are crucial in understanding the audience of broadband deployment, both in its adoption and navigation of its provided digital exposure. Layers representing local resources, such as libraries and school districts, reflect the community's current access to digital equity resources. It is evident that there are not enough resources to serve the entire county. Community anchors, such as schools, hospitals, recreation centers and public safety departments are integral relationships to maintain and survey in order to best serve the county. The majority of the anchor institutions in Adams County are not represented on the base map.

II. Digital Equity Asset Inventory

Organizations currently serving our community with digital equity services, and what the services are at the location:

Organization	Highlighted Services
K-12 schools	Internet, computers for students
Ritzville Senior Center	Internet, digital navigation services
Legion Memorial Hall Ritzville	Wi-Fi
Eagles Ritzville	Wi-Fi
Othello Library	Wi-Fi, computers, meeting spaces
Lind Library (currently closed)	Wi-Fi, computers, meeting spaces
Ritzville Library	Wi-Fi, computers, meeting spaces
Othello Senior Center	Wi-Fi, meeting spaces
Lighthouse Community Center	Wi-Fi, meeting spaces

Upcoming events or projects that could support digital equity efforts

Increasing digital navigation programming at libraries and community centers would improve efforts to maximize digital literacy in the county. This can also be done at senior centers, where the population is likely less familiar with the technology. This project can be facilitated by staff and is contingent on employee bandwidth.

Organizations currently supporting covered populations but not engaged in DE efforts

The community centers and senior centers are not currently providing digital navigation to their clients/visitors. Adoption of a digital navigation program would increase technological literacy and assist the community with better understanding new technologies supported by broadband.

Community engagement resources & spaces for classes, trainings, or meetings

There are several community spaces and libraries throughout the county that would allow for training and meetings pertaining to digital equity. These spaces provide an environment for facilitators to plan, coordinate and execute the training for interested community members.

III.   Digital Equity Needs Assessment

Demographics/populations that face barriers or lack access to digital equity services

All covered populations in the county lack the awareness and ability to utilize community digital equity support resources. We would like to increase access and ability through partnerships with local community resources where these covered populations already frequent. The aging/senior population throughout the county lacks the devices and necessary training on these devices to use broadband connectivity, and the migrant population concentrated in the west portion of the county lacks both the device access and much needed language translation services required to utilize the connectivity.

The aging/senior population is the most vulnerable to the scams and phishing exploitations that come with online access. It is critical that these groups not only are provided access, but also the training required to understand that there are vulnerabilities on the internet and that they need to proceed with an understanding of caution. Adams County Development Council has previously hosted fraud prevention classes for seniors and will continue to do so as we strive to bring more of this population online. Additionally, we need to provide continued training to young residents and their families on the risks of internet usage.

Sectors (gov't, community, cultural services) that face barriers to access or lack available digital equity services

The BAT would like to bring services of the county government, cities, libraries, health district and emergency services online. Currently, the resources available on these pages are limited, and if they exist, they require a level of digital access understanding that is not possessed by the covered populations. This was seen during the COVID-19 pandemic, as the county and cities aimed to disseminate information; there was a noticeable gap in reaching the covered populations, namely the aging/senior and migrant population.

IV.   Barriers to Digital Equity

Barriers preventing access, adoption and use of the Internet and devices:

Community broadband service is available in some community areas in and around the larger towns in Adams County, but these are not accessible to residents who live in remote areas. With remoteness, there is an awareness issue, as well. The covered populations are not always made aware of available resources, and self-imposed barriers prevent them from seeking help. Broadband adoption would require community-wide communication. Those living in unincorporated areas or outside of towns may be reached by mail, social media or email, but the technologically reliant options are not guaranteed to reach everyone. Communicating fully with the population of the county also requires both English and Spanish content, as many residents speak Spanish at home.

Barriers and gaps preventing the provision of digital equity support services throughout our region:

The lack of access to reliable, high-speed broadband throughout the county is the biggest barrier to providing support services. The most vulnerable covered populations live in areas where this connectivity is especially poor, but the BAT is working diligently to address them. Access to training through one-on-one or group in-person training sessions will be required to educate these groups about their devices and how to utilize online resources on them. Several of the county's libraries are currently closed because of staff shortages. there are not enough employees to maintain these branches or operate digital equity services within them.

Community awareness issues inhibiting digital equity resources from being utilized:

Communication with the covered populations is a challenge, as Adams County relies on print coverage for communication, which is an unreliable and slow source of information. Additionally, print resources must be available in Spanish to reach the migrant population around the Othello area.

Needs, gaps, or barriers in ability to assess the digital equity landscape of your community

As the county is very rural, truly inventorying and surveying these covered populations is the biggest challenge. A Spanish speaking representative would be needed to connect with the Spanish speaking populations, as well.

V. Potential Paths Forward

Possible funding mechanisms

State funding opportunities include support from the Digital Navigator Program, Internet for All, Public Works Board and CERB.

The Broadband, Equity, Access and Deployment (BEAD) program is a federally funded program through the U.S. Department of Commerce that provides funding to eligible agencies to support broadband deployment and adoption. The base map signified that there are thousands of BEAD eligible sites within the county. Other federal funding opportunities include support from USDA ReConnect, ACP, Lifeline, Department of Treasury and Federal Reserve, FCC, CAF and USF.

Funding from community foundations Innovia, rotary clubs, economic development supported projects and local libraries can also help to support the BAT's digital equity service aims.

Entities providing leadership in this area

- Adams County BAT
- Regional health districts

Regions/populations of high significance for outreach in our community

The county's large migrant population lives in rural Othello, surrounding all of the downtown core. This area has been identified in our existing broadband grants as an area of critical need.

Local ISPs interested in DE partnerships

- LocalTel
- Emerge Technologies
- WiFiber
- Vyve

Upcoming programs or projects that could support DE efforts

Adams County has a rich rodeo/county fair history where outreach to covered populations may be easier given the concentration of Adams county residents who attend.