LAKE COUNTY BROADBAND IMPLEMENTATION PLAN

Prepared by:

CBG Communications, Inc.

In Conjunction with

Telecommunications Research Corporation

and

Global BrandStrategy

and

in Association with the

Lake County Administrative Office

December 10, 2024

Table of Contents

Exhibits

Executive Summary

The Lake County, California Broadband Implementation Plan (Implementation Plan) builds on the 2023 Lake County Master Broadband Plan Update. The Implementation Plan is designed to identify actions, initiatives, and strategic directions that the County can take now, in the near future, and in the longer term; to enhance and expand broadband availability and adoption in Lake County. Using the updated Master Broadband Plan as a foundation, this Implementation Plan has eight (8) Sections, A through H, which initially focus on actions, initiatives and strategic directions related to increased deployment of high-capacity broadband infrastructure and services. This is followed by ways to coordinate activities on a regional basis where there is a common purpose and economies of scale, and recommendations for advocacy at the federal and State level as well as pursuing funding to support the identified actions, initiatives and strategic directions. The end of the Implementation Plan describes multiple near-term and longer-term opportunities to expand broadband adoption, and ways to continue outreach to, and engagement with, the Lake County community on broadband enhancement efforts.

Some key findings for consideration by the County in each of the Sections include:

- **Community Anchor Institutions (CAIs) --** A goal of the federal government, the State of California (State) and the County is to ensure that every community anchor institution (i.e., government facilities, educational facilities, public safety facilities, hospitals and other medical facilities, etc.) have, or have available to them, access to 1 gigabit per second (Gbps) symmetrical download and upload broadband Internet service at their location. Of the 214 CAIs researched for the Implementation Plan, all but seven (7) have such service or have it available to them at their location. These 7 CAIs are discussed in Section A, and a description of the closest service to them at the time of this Plan is provided. As broadband infrastructure and services continue to be expanded in the County, these 7 facilities will need to be a focus of future deployment efforts.

  Exhibit A is included in the Exhibits and provides broadband-related information for an updated list of CAIs in the County.

- **Rights-of-Way-related processes and procedures that can help accelerate cost-effective broadband deployment --** Section B of the Implementation Plan discusses a variety of actions that the County can take from a regulatory, coordination, and policy, process, and procedure development perspective, to enhance existing ways of working with broadband providers to expand broadband deployment where feasible. This includes, for example, reviewing the use of ever-evolving broadband infrastructure construction and installation methods, engaging in joint planning processes, and developing excess capacity where feasible, all designed to decrease the cost and increase the speed of broadband deployment to Unserved and Underserved areas. Additionally, augmentation of lease terms for County-owned vertical and other assets is similarly discussed, designed to facilitate expansion of broadband infrastructure and services.

- **Partnerships with broadband providers** -- Section C reviews the current state of broadband deployment and projects that have been planned during the time that has elapsed since the development of the updated Master Broadband Plan. This includes an engineering study performed by the Golden State Connect Authority (GSCA), which is a joint powers authority of Rural County Representatives of California (RCRC), as part of a Local Agency Technical Assistance (LATA) grant obtained by the GSCA on behalf of the County; Federal Funding Account project applications made by Mediacom, AT&T and the GSCA to support expansion of high-capacity broadband Internet service to Unserved and Underserved areas of the County (currently awaiting award decisions from the California Public Utilities Commission (CPUC); and the anticipated plans of other providers to expand service, if funding support becomes available.

- **Improved broadband Internet reliability, resilience and redundancy** -- Section D of the Implementation Plan discusses issues with the reliability of existing broadband services that were identified during the 2023 Master Broadband Plan Update. Discussions were held with providers related to current activities focused on increasing reliability and resiliency of their networks. These efforts, including Mediacom's current implementation of increased backup power supply capabilities, as well as the progress of the State's implementation of the Open Access Network (OAN) Middle Mile infrastructure in Lake County, are described in this Section.

- **Regional collaboration and cooperation** -- Section E describes existing and potential regional and multi-regional partners to help coordinate and pursue funding for both broadband deployment and adoption-spurring initiatives that will benefit Lake County. This includes the aforementioned GSCA as part of RCRC, the Upstate California Connect Consortium (UCCC), the Mendocino Lake Community College District ("MLCCD" or "Mendocino College") and Woodland Community College (WCC), and describes various initiatives already underway, and others that can be pursued in the future.

- **Advocacy and funding opportunities at the State and federal level** -- Section F describes in detail activities that the County should continue to engage in, or become engaged in, to ensure that the County will benefit from multiple efforts currently occurring at the State and federal levels, These efforts are designed to assist localities, the broadband providers that serve them, and the community partners they work with to continue to improve broadband availability and adoption within their jurisdictions. This includes advocacy before the CPUC to support the provision of funding that will increase broadband deployment in the County and advocacy before the California Department of Technology (CDT) to assist in securing digital equity capacity grant funding to support those that provide digital equity-related services to County residents. At the federal level, this includes continuing to work with the County's Congressional representatives to support legislation that benefits Lake County and oppose legislation that will detract from Lake County's ability to support broadband availability and digital equity enhancements for its residents. The same focus at the federal level is needed related to the National Telecommunications and Information Administration

(NTIA) and the Federal Communications Commission regarding regulations promulgated, and programs implemented, by these federal agencies, such that they are beneficial, and not detrimental, to the County in the future.

- **Broadband adoption-spurring initiatives --** Section G also describes in detail a variety of specific activities, including some that the County is currently involved in, that should be both the near-term and longer-term focus of the County to continue to enhance digital equity. As an example, the County recently, together with its Library, Mendocino College, and the Habematolel Pomo of Upper Lake (HPUL), filed an application with the NTIA for $7.1 million in grant funding to support a broad range of adoption-spurring initiatives that will benefit residents in the County and throughout the region. The focus of this grant application is described in detail in Section G.

  As another example, the CDT recently released its application guidelines for pursuing approximately $340,000 in State digital equity capacity funds in Lake County. An overview of some of the key criteria and a link to the full CDT document is contained in this Section of the Implementation Plan. It is recommended that the County oversee efforts to pursue this funding for the benefit of County residents.

  Additionally, an update on a variety of agencies and organizations involved in digital equity initiatives is provided in Section G and recommendations are made to work with them in both the near and longer term to continue to expand and enhance adoption-spurring initiatives in the County.

  Exhibit G provides a variety of information designed to assist the County or any other pertinent entity with the information needed (equipment, costing, space allocation, etc.) to develop public access computer/broadband Internet locations.

- **Continuing broadband outreach to and engagement with the community --** The last Section H describes ways for the County to continue to outreach to, and engage with, all the various sectors in the Lake County community, including residential, business, non-profit, institutional and others, to, for example, serve as a clearinghouse for information on: the availability of public access computers; digital navigation and other digital literacy education and training; affordable Internet connectivity programs from providers and non-profits; and updates on the progress of expanded broadband deployment in the County. Section H also provides information on methods to continue to engage with the Lake County community to understand how their broadband-related needs continue to evolve, in order to give the County, the most granular information on how best to respond with initiatives to meet those needs.

  Exhibit H is included in the Exhibits and contains sample announcements, flyers and survey instruments (in both English and Spanish) that the County can use in working with agencies and partners to disseminate to, and receive feedback from, the community that will help it to continue to refine its broadband enhancement efforts in the future.

CBG and its Project Team wish to thank all of the many individuals and organizations who participated in the development of this Broadband Implementation Plan. It can be used by the County to move forward with actions, initiatives and strategic directions that will have a positive impact on continuing to expand and enhance broadband Internet availability and digital equity in Lake County.

All the information, findings, and recommendations summarized above are incorporated with substantial supporting detail into the full Implementation Plan and Exhibits that follow.

Introduction

This Implementation Plan is designed to detail next steps, both near-term and long-term, to implement recommended actions, initiatives, and strategic directions for expanding and enhancing broadband infrastructure and services in Lake County. It is a companion to the September 2023 Master Broadband Plan Update, which CBG Communications, Inc. (CBG) has also developed. An overview of the Implementation Plan categories is provided in Section VI of the Updated Master Plan.

The Implementation Plan Sections cover:

A. Pursuing deployment of broadband infrastructure and services to ensure that all Community Anchor Institutions (CAIs) have available access to internet connectivity at 1 gigabit per second (Gbps).
B. Implementing Rights-of-Way (ROW) management processes and procedures to help accelerate cost-effective broadband deployment.
C. Developing partnerships and otherwise working closely with the broadband provider community.
D. Working with the provider community to improve the reliability and resiliency of their systems.
E. Working on a regional basis for the benefit of Lake County constituencies.
F. Staying active in advocacy, and pursuing grant funding and other support, on the State and Federal levels.
G. Expanding public access to the internet and other adoption-spurring initiatives, including working with Tribal Nations and other partner organizations in Lake County to find synergistic ways to build upon both the County's and the partners' broadband adoption efforts.
H. Continuing outreach to, and engagement with, the entire Lake County community regarding broadband planning efforts.

It is important to note at the outset of this Implementation Plan, that elements for the expansion of broadband availability and adoption continue to evolve. Evolving factors include available funding opportunities, broadband provider plans and initiatives, number and needs of Covered Populations[1] within the County, and organizational capabilities for meeting broadband adoption-related needs.

Accordingly, while CBG has strived to denote certain projected timelines, costs, and metrics for achieving and recognizing successful implementation activities, these will need to be augmented, updated, and refined based on a fast-changing broadband availability and adoption climate. As an example, at the writing of this Implementation Plan, Federal Funding Account (FFA) awards for Lake County have still not been made. As noted in the sections that follow,

[1] Covered Populations, as defined by the NTIA and the State, include: individuals living in a low-income household; aging individuals; formerly incarcerated individuals; veterans; individuals living with disabilities; English language learners; individuals with low levels of literacy; individuals who are members of racial or ethnic minorities; individuals who primarily reside in a rural area; children and youth; and individuals experiencing housing instability.

certain deployment scenarios can only be projected as "if-then" scenarios until these awards are made. Once the awards are made, deployment scenarios can be adjusted, and new projections can be developed.

Section A

Community Anchor Institutions (CAIs) at 1 Gbps

Section A - Community Anchor Institutions (CAIs) at 1 Gbps

CBG studied the availability of broadband to Community Anchor Institutions (CAIs), which include schools, colleges, libraries, healthcare institutions, social services institutions, and other community institutions throughout the County. The initial list contained primarily governmental and public educational facilities as were known at the time. Appendix A to the Updated Master Plan, included known entities and whether they were using broadband and at what speeds.

Since then CBG have reached out to additional entities, for information on what is being utilized at their facilities, with limited results. Many locations do not have a staff person available that knows the specific speeds they are being provided and in some cases, they may not know the name of the broadband provider that delivers the service.

For these reasons CBG determined the best path forward is to add the State's list of CAI's to the existing list in Appendix A of the Updated Plan and then research the "Available" service, the speeds offered and the provider capable of delivering the service using the FCC's Broadband Map. We know that if a wireline provider is offering broadband service of at least 100 Megabits per second (Mbps) download and 25 Mbps upload to the facility, they will have fiber optic infrastructure within a few blocks of the facility that is capable of offering speeds of at least 1 Gigabits per second (Gbps) symetrical.

This approach obtains the needed information in what turns out to be at least as, and sometimes more, accurate compared to calling facilities, tracking down a person who may know what service is being utilized and at what speeds. Note that the speeds being utilized by a specific entity may not be the maximum the provider is capable of providing to the facility.

1. Results of Research

The results of CBG's research show that the vast majority of CAIs reside near denser populated areas in the County. As a result, of the 214 CAIs listed in Exhibit A, all but 7 are either connected to broadband level service, have broadband service available to them but are not connected or are within a few blocks of infrastructure capable of providing speeds at or above 1 Gbps symmetrical. Broadband service pricing for each specific facility will vary based on the amount of infrastructure needed to reach a particular facility and what type of construction, i.e., above ground or underground, is needed.

CBG has also learned from time spent in Lake County and from conversations with AT&T, that AT&T has significant fiber optic infrastructure in the County, the specifics of which don't appear on publicly available maps and are not shared by AT&T. CBG has determined where Mediacom can provide 1 Gbps symmetrical with modest levels of new construction, we cannot make the same determinations for AT&T. It is possible that AT&T can provide 1 Gbps service to some of the CAIs, but specific discussions with AT&T would be required, for each location, to determine if it can provide 1 Gbps service.

Where we indicated that "*AT&T Fiber Optic is Available" on the CAI List, we determined this by finding a location nearby that we know is receiving 1 Gbps symmetrical service from AT&T. In addition, some addresses have multiple tenants. Where one CAI was using AT&T 1 Gbps symmetrical, we know the other nearby CAI could use the same service if they are not already.

One location, the Northshore Fire Protection District Station #77 in Spring Valley would gain 1 Gbps availability if Mediacom's or one of the AT&T's FFA applications are awarded.

The other 6 CAIs (note that 2 entities are operating from the same address on State Highway 175 but are seen as 2 separate listings on the State's CAI List.) that cannot practically receive 1 Gbps symmetrical speeds at this point are shown in Table A-1:

Table A-1. Locations That are Not Close to Existing Networks Capable of Offering 1Gbps Symmetrical Broadband.

Institution Name	Address	City	Approximate Distance to Broadband
Big Valley Grange 680	1510 Big Valley Rd.	Finley	Mediacom is estimated at 1.5 miles away, AT&T may be closer
Kelsey Cobb FS, LNU Kelsey Cobb FS, Station 34	8948 State Highway 175	Kelseyville	Mediacom is 4.5 miles away; AT&T may be closer
Mount Konocti COM/LO, LNU Mount Konocti COM/LO	8948 State Highway 175	Kelseyville	Mediacom is 4.5 miles away; AT&T may be closer
Westlake Seventh-day Adventist	6585 Westlake Road	Lakeport	Mediacom is estimated at 1.5 miles away, AT&T may be closer
Lakeport Fire Protection District Station 52	3600 Hill Road East	Lakeport	Mediacom is estimated at 1.5 miles away, AT&T may be closer
Moose Lodge 2284	15900 E. Highway 20	Clearlake Oaks	Mediacom is estimated at 3.5 miles away, AT&T may be closer
Northshore Fire Protection District Station 77 Spring Valley	3178 Tamarack Way	Clearlake Oaks	Mediacom is estimated at 1.5 miles away, AT&T may be closer, FFA Applications would provide service to this area.

Section B

Implementing Rights-of Way (ROW) Management/Policies/Processes/Procedures to Accelerate Broadband Deployment

Section B - Implementing Rights-of Way (ROW) Management Policies/ Processes/Procedures to Accelerate Broadband Deployment

1. Understanding the Public Rights of Way (ROW)

The County has the ultimate responsibility to provide oversight of the County's Public Rights-of-Way ("Public ROW" or "ROW"), including herein, rights-of-way, dedicated easements and prescriptive easements. Public Rights-of-Way, as defined above, consist of the area of real property in which the County has a dedicated or acquired rights-of-way interest in the real property, including the area on, below, or above the present and future streets, alleys, avenues, roads, highways, parkways, or boulevards dedicated or acquired as rights-of-way and utility easements dedicated for compatible uses.

Wireline broadband providers, as well as utility companies, must utilize the Public ROW to traverse the County to reach addresses where residents or potential customers reside. These companies place their facilities underground within the ROW or where feasible and practical, i.e. wires and cables, upon poles that are placed in the Public ROW. Without the ability to use the ROW, these systems would not be feasible. In theory, utilization of private property could be done but the permittees' facilities would still need to enter the Public ROW to cross streets, sidewalks and other publicly owned property. Further, having to get approval from every private property owner for facility placement would not be possible.

2. Oversight of the Public ROW

Public ROW oversight and management can include the review of plans of public and private permittees to enter the ROW with their facilities. This ensures all construction activities are performed in a safe manner and that all requirements and applicable codes, such as the Lake County Code Chapter 19 - Transportation and Chapter 20 - Underground Utility Districts, are met. In addition, ROW management ensures that space within the highly desired ROW is utilized in efficient manners to better allow future permittees access.

High on the priority list for the Implementation Plan was to get feedback from the Lake County Public Works Department (PWD) in developing ROW entry and utilization requirements. Discussions should be held with all existing, and to the extent possible, potential permittees in the Public ROW prior to beginning work to create or update ROW-related processes and requirements to ensure the County's focus includes the needs and desires of service providers as much as is practical while maintaining the focus of the requirements.

Simply put, if the ROW users' concerns were reacted to and they had input into developing new requirements, they will be more likely to concur with new or revised processes while understanding why some changes cannot be addressed in the new requirements.

3. Work with Lake County departments/organizations to develop proposed policies, processes, and procedures

The Public Works Department is interested in exploring processes and procedures that will help the County promote new and expanded broadband networks. The number one reason broadband providers don't expand existing networks is the cost of deployment. Delays in construction can add significantly to the cost of deployment by not allowing permittees to begin providing service as soon as desired and thereby delaying revenue generation from the new facilities being placed in the ROW. The County will want to do everything it can to lower the costs of broadband infrastructure construction as much as possible while maintaining the proper oversight of the ROW and minimizing potential impacts of construction on the general public.

This Section B. of the Implementation Plan explains processes the Public Works Department should examine for implementation. Each of these processes can assist broadband providers by allowing or promoting new procedures and techniques of construction that will make deployment of infrastructure more streamlined and cost effective. These time and cost savings may be the difference of a provider expanding in the County, or going to another more amenable jurisdiction in California to provide broadband where it currently doesn't, exist or provide competition practical in more densely populated areas of the County.

It is important to get all potential stakeholders at the County, such as Public Works, Code Enforcement, Office of Emergency Services, Engineering and Inspection, Administration, Special Districts involved and possibly even more important is to get participation by broadband and utility providers, ROW permittees, in the process of developing new ROW policies and ordinances.

Participation by these entities will provide insight on the impact of envisioned policies and how, although developed with good intentions, some planned new policies may be counterproductive. Ultimately, buy-in from the utilities and broadband providers will determine the value of new policies to promote broadband expansion.

There are typically both short-term and longer-term costs associated with the development and implementation of new policies and procedures. The County will need to project and evaluate from a cost/benefit standpoint the level of part-time and full-time employees required for the existing workload or potential increases required in the workforce to implement new programs or policies.

4. Streamlined ROW Permitting

Permit streamlining is based on asking for all the necessary information in the most effective and efficient manner, describing the work to be done in the ROW, and how it will be completed. This should be done while minimizing the amount of information being requested that isn't of value in whether a permit application should be accepted, rejected or sent back to the provider for follow-up or clarification.

With GIS having become the norm for all utility and broadband providers, much of the information needed can be provided in a GIS map format. The exact location of new infrastructure

to be placed, the impacted area around the new placement and traffic mediation plans, when needed, can all be included in map layers provided with a permit application. This minimizes the amount of handwritten or spreadsheet format input that is needed from the provider.

In addition to the map showing specifically where construction will occur, specific information can be provided on a fill-in-the-blanks document. Ideally, much of the background information and construction techniques to be used can be cut and pasted from a provider's prior permit application once in place.

Discussions with the PWD have indicated that the County does not currently utilize GIS mapping in its permitting processes and does not maintain a GIS program to track new construction projects. Further, the County is not currently equipped to develop and maintain what would be a GIS inventory of permittees' facilities in the Public ROW. These processes would require additional staff time and set-up costs, which could require a significant investment in order to realize the benefits of such a system.

Development of a GIS-based tracking and inventory system also requires significant participation from all permittees in the ROW. The permittees would need to provide map layers of their existing facilities and infrastructure that the County would then import into its mapping system.

Other important considerations for putting these types of systems in place include roadblocks that need to be overcome in the various uploading of information from providers that have likely been using different conventions and methods for several years. In addition, the permittees may not be eager to share the locations of its facilities and infrastructure at all and may only provide high level information that only shows the location of facilities and not specific information on the equipment and infrastructure placed in the ROW.

Developing or revising a permitting process using existing resources to ensure all components that are required in a permit are addressed in an efficient manner can be a significant undertaking. Understanding this, the State created a document called **"State of California Local Permitting Playbook, date August 2022"** (Playbook). The Playbook has numerous strategies for permitting processes that are intended to make broadband deployment more likely in a municipality. Although the Playbook includes concepts and ideas more detailed than included in the Scope of this Implementation Plan, the information is invaluable, and California based. This Playbook can be found at Permitting Playbook.

As with all of the pieces of this Section B (ROW Management) of the Implementation Plan, once a base document and process is created, meetings should be held with the ROW permittees, including non-broadband permittees of the ROW, to gain feedback on the new process and to glean potential insight on portions of the process that could create roadblocks for permittees and ways the revised permitting can be further improved. The County can then take that feedback to create a process that best meets all the participants' needs while minimizing unnecessary documentation and work for the County and permittees.

5. Expanded Utility Coordination with ROW Management Projects

All broadband and utility providers that are currently in the ROW, or who are known to be interested in deploying a network in County ROW, need to be involved in projects in the Public ROW from as early in the planning stages as practical. The utility and broadband providers can identify obstacles or processes that will increase the labor, costs and time for each to perform their required work. Minimizing potential unforeseen obstacles ahead of time can improve efficiency, the speed of the providers to perform their work and even improve the safety of job sites.

The County's Public Works Department would be the lead and coordinator of meetings with providers and ROW permittees. The County would schedule regular meetings to bring all parties who are impacted by activities in the ROW together to discuss plans the County is creating for ROW excavations and other projects that may impact some or all of the ROW permittees. Potential topics to be covered in these meetings might include:

- New, future projects and the area(s) to be impacted (pre-planning)
- New procedures being developed that impact the permittees and permit applicants (i.e., permitting and inspection processes or applications to be used)
- Development of a GIS database to document where infrastructure is located in the ROW and then to be used to help accelerate permitting for permittees
- Updates from permittees and permit applicants on planned ROW projects being considered or that are in process
    - Permittees and permit applicants providing and updating Key Point(s) of Contact for current and known future construction projects

Ensuring that providers have coordinated their tasks, such as raising aerial facilities, locating underground facilities and any moving of infrastructure that must occur and an approximate schedule up front, will allow them to get into the jobsite, perform their tasks, ensure their facilities are secure and safe and to then leave the jobsite. Likely participants in these meetings include:

- Road construction contractors that work for Public Works
- Water and sewer departments
- Special Districts
- AT&T and its contractors who work in the ROW
- Mediacom and its contractors that work in the ROW
- Others as pertinent

Proper staging of contractors at the jobsite is critical to ensure workers are not running into each other or waiting for another crew to finish their work before they can begin theirs. This ensures efficiency and results in a safer worksite with each crew securing and making their areas of work safe before leaving.

All of the above recommendations will require additional short-term staff time as well as on-going staff time to develop the new requirements and policies and to then oversee current and new requirements of permittees in the future. Depending on the length of time additional staff are

required, some combination of additional internal staff as well as shorter term contractors may be needed.

While the benefits of the policies, processes and procedures discussed above are many, the County must analyze all the supporting resources needed to develop and implement them. Such analysis will require a cost versus benefit analysis prior to moving forward.

6. Develop a Micro-Trenching Policy and Permitting Process

Micro-Trenching is a process of making a relatively small vertical cut in a roadway that can accommodate conduits and fiber optic cables. Because the cut is only approximately 2 inches wide, construction done using Microtrenching is significantly quicker and less expensive than traditional trenching or even directional boring.

Figure B-1. The Picture Shows the Saw that Creates the "Micro Trench". This Trench is Approximately 2" Wide and 18" Deep. An Industrial Vacuum Truck Collects the Refuse as the Cut is Created.

Further, because the process is less intrusive to the ROW, sections of roadway can be closed for as little as a few hours, if closure is required at all.

California Law now requires counties, cities and special districts to allow micro-trenching for fiber optic deployment unless, as explained by Best, Best & Krieger LLP., *"A local agency may refuse to allow microtrenching only by making a written finding that microtrenching for a fiber installation would have a specific, adverse impact on the public health or safety.*[2]

As detailed in the Plan Update, the County needs to be proactive in determining what if any areas of the County to prohibit micro-trenching in, remembering that the only reason for denial is that micro-trenching for a fiber installation would have a specific, adverse impact on the public health or safety.

In addition, knowing that micro-trenching is possible in the County, the County should create its own requirements and specifications for where the trench can be cut (location in roadways), width and depth minimums and maximums, construction processes and procedures as well as required materials and methods for backfilling the trench. An excellent starting point document for the County to review is the LA County Guidelines document which can be found here.

The County will want to be vigilant with contractors performing micro-trenching work to ensure all requirements are met. Additionally, any adjustments to techniques and materials used by the contractors should require written authorization from the pertinent Public Works Staff person(s).

Once the policies, procedures and acceptable materials list are in place, permitting of micro-trenching can occur in much the same way as other ROW permits. Providers will need to accept the policies and procedures, sign that they will comply and not vary from the plan without written acceptance by pertinent Public Works personnel, listed by position or title, on the permit. The provider will be required to include a detailed plan, at least as thorough as with other underground construction permits, for where and how micro-trenching is proposed to occur. The County can then determine if the route selected by the provider will create any issues that need additional County review and potential provider redesigns.

7. Development of a Dig-Once Policy

It should be a goal of the County to ensure that access to the public Rights-of-Way (ROW) be performed in the most efficient manner in order to minimize negative influences on providers who are evaluating network expansion in the County. In addition, the County should do all it can to minimize the amount of construction being performed in the ROW, while allowing, and promoting, expansion of broadband networks.

The County should create and promote a Dig-Once policy to reduce cost and negative impact to the ROW while promoting expansion of broadband by as many providers as desired. The following aspects of a Dig-Once policy should be evaluated by the County for inclusion in the Public Works' Dig-Once Policy:

[2] https://bbklaw.com/resources/in-with-the-new-part-five

a. County Road Construction and Underground Utility Projects

As mentioned in the Updated Master Plan, road construction and reconstruction projects comprised of digging into, or creating a new roadbed should be evaluated for inclusion of conduit for future use by broadband providers for placement of fiber optic cables, reducing the cost of construction for potential future broadband deployments. An additional benefit of placing conduit while a portion of a road or other ROW is opened is that the new roadway will not need to be disturbed in the near term for placement of new facilities and will therefore likely lead to longer lifetimes for impacted roadways.

The same processes should be in place where other utilities, including sewer and water, are being placed or replaced in and near roadbeds. When these projects are performed, the cost of placing additional conduit into an existing trench is minimal and should be considered on all construction projects in the ROW. Determinations, on a case-by-case basis will be required to determine if the additional conduit to be placed is potentially beneficial for future broadband deployment. For instance, where a roadway is being dug up to replace a sewer or water lateral to a home or business, it is not likely that placing an additional conduit will provide any future value.

b. Public Utility and Private Provider Joint Trench

A policy can be created where receiving a ROW permit for underground construction and installation of public utility or private provider infrastructure is conditioned on providers working with the County to determine whether placement of additional conduit and infrastructure is feasible. The contractor performing the work would then be required to work with the County to notify other ROW permittees of the pending project, where enough space would be available to place additional infrastructure at proportional costs to all parties entering the trench.

As mentioned, input from existing ROW permittees will help the County develop requirements of when additional conduit must be placed, how it is to be terminated to elongate its lifespan and usability and what materials and processes must be adhered to.

8. Master Lease Terms for County-Owned Vertical and Other Assets

Prior to developing or revising a Master Lease document, the County may create an inventory of all assets that are potentially valuable to communications companies for deployment of their services. Vertical assets may include water towers, taller buildings (roof top wireless network deployment), radio towers with available space for a new permittee (Public Services and Special Districts facilities), streetlight and utility poles.

Non-vertical assets may include bridges (utility crossings), existing available conduits and land assets such as could be utilized for tower placement, especially in higher elevations of the County.

A Lease Agreement for access to County-owned assets will include all of the general requirements as is included in all agreements between the County and private entities. These will include, but not be limited to, the term or length of the lease, definition of terms used in the lease,

a description of the assets being leased, how the assets can and cannot be used, and various types of insurance and indemnity clauses to name a few. In addition to these obligations and requirements, specific terms related to the value of the assets and compensation to the County are included, such as rent or barter arrangements that are negotiated with the provider or permittee of the asset.

Assets that are owned by the County that could be included in a Master Lease that would help expand broadband deployment could include:

- Conduit leases
- Land leases for telecommunications facility placement
  - County land to be used for tower placement
  - Cabinets and hub placement
- Space on towers, streetlights and buildings and the accompanying space on the ground for equipment cabinets or small hub buildings
- Space on water and communication towers

The first step in developing a business relationship with a provider is to ensure that the asset(s) needed by the provider are clearly understood and documented. These assets are not right of way assets but are public property which is often not in the ROW. Know that the provider has performed some level of due diligence, and the County should as well.

If land is required for placement of equipment or cabinets, the precise footprint to be leased needs to be determined. If access to the site requires a driveway, such as for a remote cell or wireless broadband tower, does this impact the value of nearby land and can the driveway be moved if needed to lease or sell additional land in the future.

Then, a survey of similar leases should be conducted to place a value on the assets included in the lease. These can be simple comparisons when determining the value of land by acquiring sales or leases of other property in the County, much the same as realtors do to value a home that is being sold.

Another means of determining value is by considering the revenue to be generated by facilities placed on County-owned assets. This is commonly done when leasing land for tower placement or leasing space on a County owned tower. Similar to determining the value of land in a traditional comparison to other properties recently sold, revenue generating value can be determined by comparing the County's asset(s) to leases of assets in similar, nearby geographic locations.

Cellular providers will have a value for the lease based on anticipated traffic for each specific location. This can be used as a starting point but should not be taken at face value when entering a negotiation with the provider. Discussions with other local governments should occur to see what lease agreement terms they have with providers to set a fair expectation of value before negotiations with providers begin.

Specific terms, common in telecommunications leases, to be considered for inclusion in land leases for tower construction:

- Term
- Processes for renewal.
- Holdover Tenant processes – What happens if a tenant stays beyond the lease term without offering to renew the lease?
- Permitted and prohibited uses of the tower
  - Subletting space on the tower
- Environmental impact studies and documentation
- Responsibility of testing the site for acceptable conditions to build a tower and other facilities as agreed.
- Responsibilities for gaining access to utility power
- All necessary site surveys and drawings specifically showing land to be leased and any adjacent land that may be impacted or deemed unusable for other tenants, including the County
- Terms addressing transferring of a tower lease to a third party
- Ability of the County to sell the property to a third party
  - Potential for a first right of refusal for the provider occupying the land.
  - Ability of the County to lease adjacent land
- Documentation showing the antennas placed on the tower will not interfere with existing radio frequency users
- Removal of equipment when the lease expires and is not renewed
- Remedies for breaches of the Lease.

In addition, terms should be included for compensation if the tower owner leases space on the tower to other wireless providers who will realize revenues from utilization of the space on the tower. In other words, a set lease rate is included for the owner of the tower, but additional revenue would be required if additional permittees are added to the tower.

In lieu of some or all the lease rental payments, the County may elect to barter with the cell tower owner for services related to those provided via the tower. For instance, the County may need access to a tower for wireless emergency communications or if the tower owner is a cell phone service provider, the County may ask to include cell phone services from the company in exchange for relieving part of the monthly lease cost of the land.

Many of the above terms for inclusion in a lease with a wireless provider can be included in a lease for vertical assets owned by the County. For instance, space on a water tower, communications tower or streetlight and the land needed to house any equipment required by the tenant.

Master Lease Agreements generally are a financial commitment by the provider in exchange for use of an asset owned by the County. A form of bartering can also be included in a lease where the County would waive part or all of the costs included in a lease agreement, in exchange for the provider offering broadband in an area currently unserved by broadband. This

would be designed to incentivize providers to further expand broadband networks into less densely populated areas of the County by decreasing the costs to so.

The bottom line is to understand the number, nature and value of County owned assets and ensuring they are valued as assets leased in other comparable parts of the region for the same purposes.

Section C

Developing Partnerships and Working with Broadband Providers

Section C - Developing Partnerships and Working with Broadband Providers

1. Background Information and Updates Since the Master Broadband Plan was Developed

The Lake County Master Broadband Plan Update (Updated Plan), prepared by CBG Communications, Inc. and dated 09/20/2023, explained the then current landscape of available Internet and Broadband Internet throughout the County.

CBG and the County have reached out to providers in the County to gain an understanding of interest in further deploying or expanding their networks to serve areas that are either Unserved or Underserved by broadband networks today.

Unserved and Underserved were defined in the Updated Plan as:

> ***Unserved and Underserved – These terms are used extensively throughout the 2023 Plan and may mean different things. A significant goal of this 2023 Plan, and follow-up tasks, plans and reports, is to identify where Broadband network accessibility exists and where it does not exist. A further differentiation is that of Unserved and Underserved. "Unserved" is defined as a BSL[3] that cannot receive Internet service that is at or above 25 Mbps/3 Mbps[4]. Underserved is defined as a BSL that can receive Broadband at or above 25 Mbps/3 Mbps but cannot receive speeds at or above 100 Mbps/20 Mbps.[5]***

An additional note, the FCC, at the time of development of the Updated Plan, defined broadband as 25/3 Mbps or 25 Mbps download and 3 Mbps upload. However, recently on March 14, 2024, the FCC announced it is redefining broadband as 100/20 Mbps.

In this Implementation Plan, we explore potential partnership opportunities and deployment possibilities involving the existing and planned providers serving portions of Lake County.

---

[3] **Broadband Serviceable Location (BSL)**[3] – The FCC creates a map of all addresses or locations in the United States that could be physically served by a broadband ISP or provider. These locations are referred to as BSLs. It is important to note that the term BSL does not indicate whether a specific address is served but only that it exists and should likely be considered that the occupants would desire to have access to broadband.

[4] An unserved location is defined as a Broadband-Serviceable Location (BSL) that the Broadband DATA Maps show as (a) having no access to broadband service, or (b) lacking access to Reliable Broadband Service offered with - (i) a speed of not less than 25 Mbps for downloads; and (ii) a speed of not less than 3 Mbps for uploads [25/3 Mbps]; and (iii) latency less than or equal to 100 milliseconds.

[5] An underserved location is defined as a broadband-serviceable location that is (a) not an unserved location, and (b) that the Broadband DATA Maps show as lacking access to Reliable Broadband Service offered with - (i) a speed of not less than 100 Mbps for downloads; and (ii) a speed of not less than 20 Mbps for uploads [100/20 Mbps]; and (iii) latency less than or equal to 100 milliseconds.

2. Last Mile Federal Funding Account

Lake County has been allocated approximately $28.4 million from the Federal Funding Account (FFA) Program, administered by the CPUC, designed to expand Broadband availability into currently unserved/underserved areas of the County. Three providers applied for this funding and are awaiting the CPUC's announcement of awards for the County. Each of these providers' requested funding, number of BSLs to be served and the average cost per new BSL served are shown in Table C-1 below. These three providers are:

- Mediacom (MCC Telephony of the West LLC)
- AT&T
- Golden State Connect Authority (GSCA)

Each of the providers asking for FFA funding have indicated that the entire deployments would be done with a Fiber to the Home (FTTH) or Fiber to the Premises (FTTP) architecture. It has been determined by broadband providers in the past that these areas would not meet an acceptable Return On Investment (ROI) without considerable outside grant funding. The areas proposed by each, as shown below in Figures C-1 through C-4 have low density and therefore are not likely to be served by broadband without some significant level of grant funding.

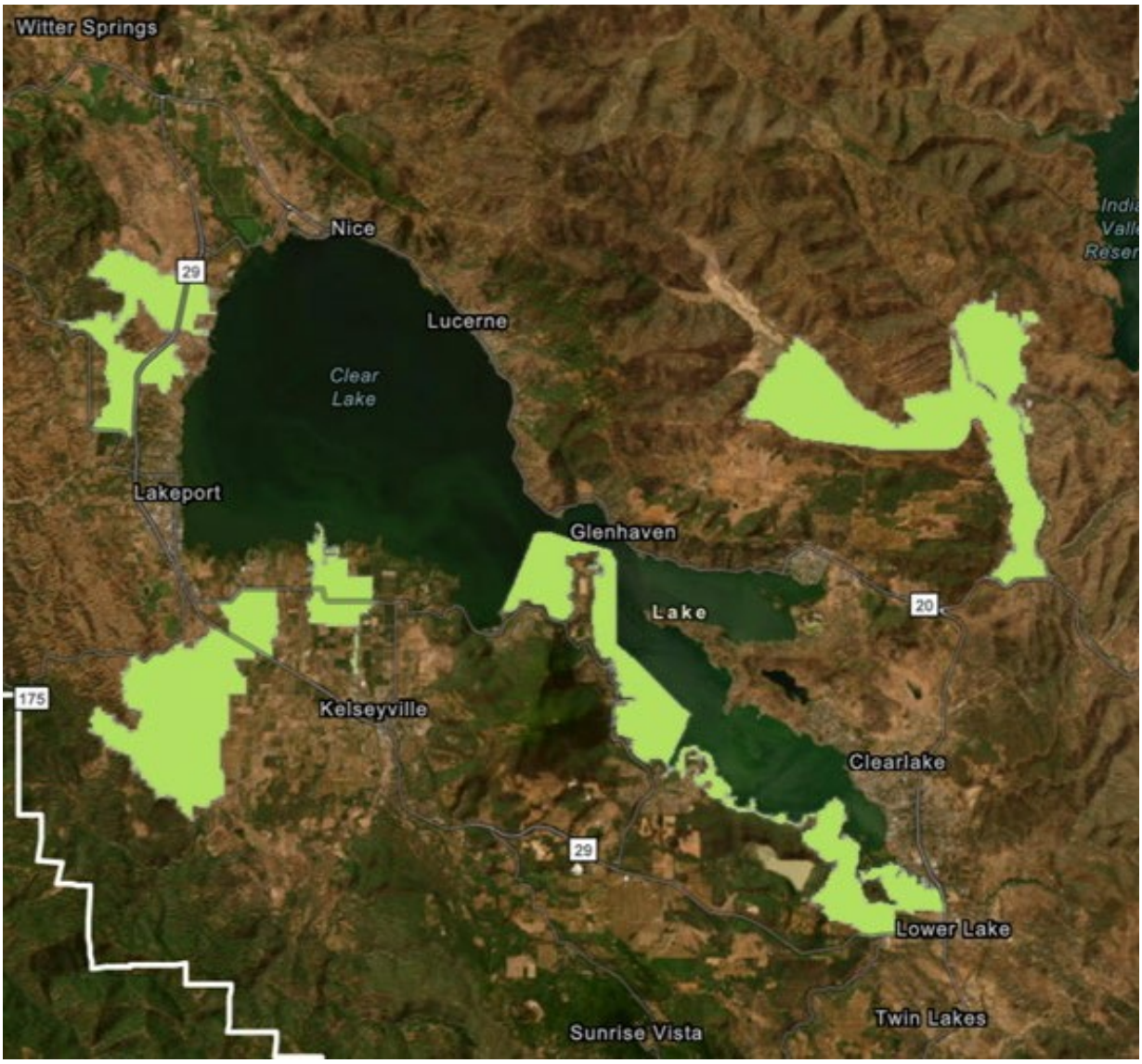


Figure C-1. Mediacom FFA Application. Includes Multiple Areas of the County, in a Single Application, as Shown on the Map.

Mediacom's Application to the CPUC for FFA Funds is shown in green in Figure C-1, these areas combined have a total number of 893 Unserved/Underserved BSLs that would be served if Mediacom is granted the funds.

Mediacom's Application asked for $8,429,711.11 to provide broadband download speeds of 2 Gbps and unload speeds of 1 Gbps to the 893 BSLs that are currently Under/Unserved.

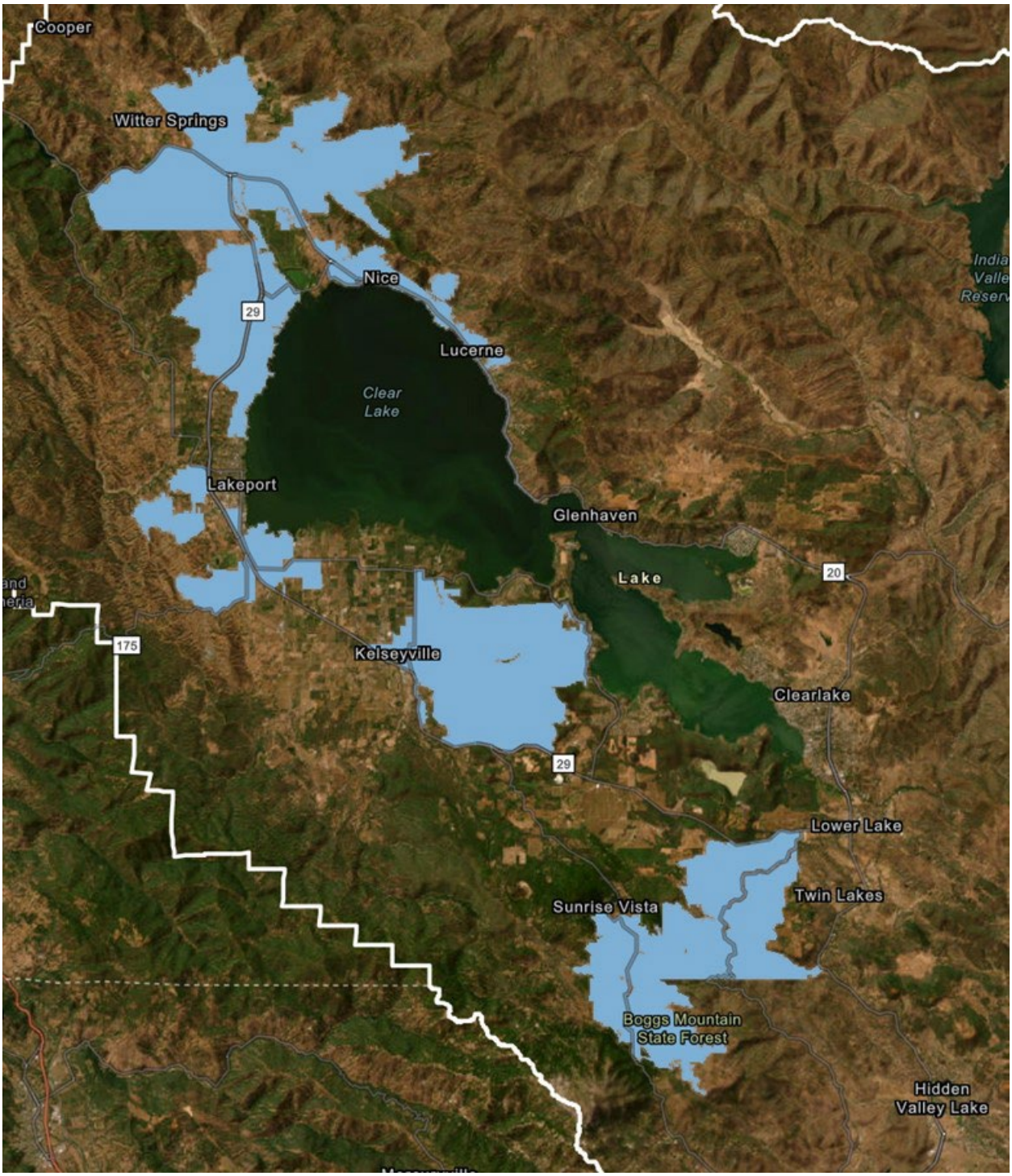


Figure C-2. Golden State Connect Authority FFA Application. Includes Multiple Areas of the County in a Single Application to the CPUC, as Shown on the Map.

GSCA's Application to the CPUC for FFA Funds is shown in blue in Figure C-2, these areas combined have a total number of 1,062 Unserved/Underserved BSLs that would be served if the GSCA is awarded FFA funds for the total amount requested.

The GSCA's Application asked for $28,305,451 to provide symmetrical broadband speeds of 10 Gbps to the 1,062 BSLs that are currently Under/Unserved.

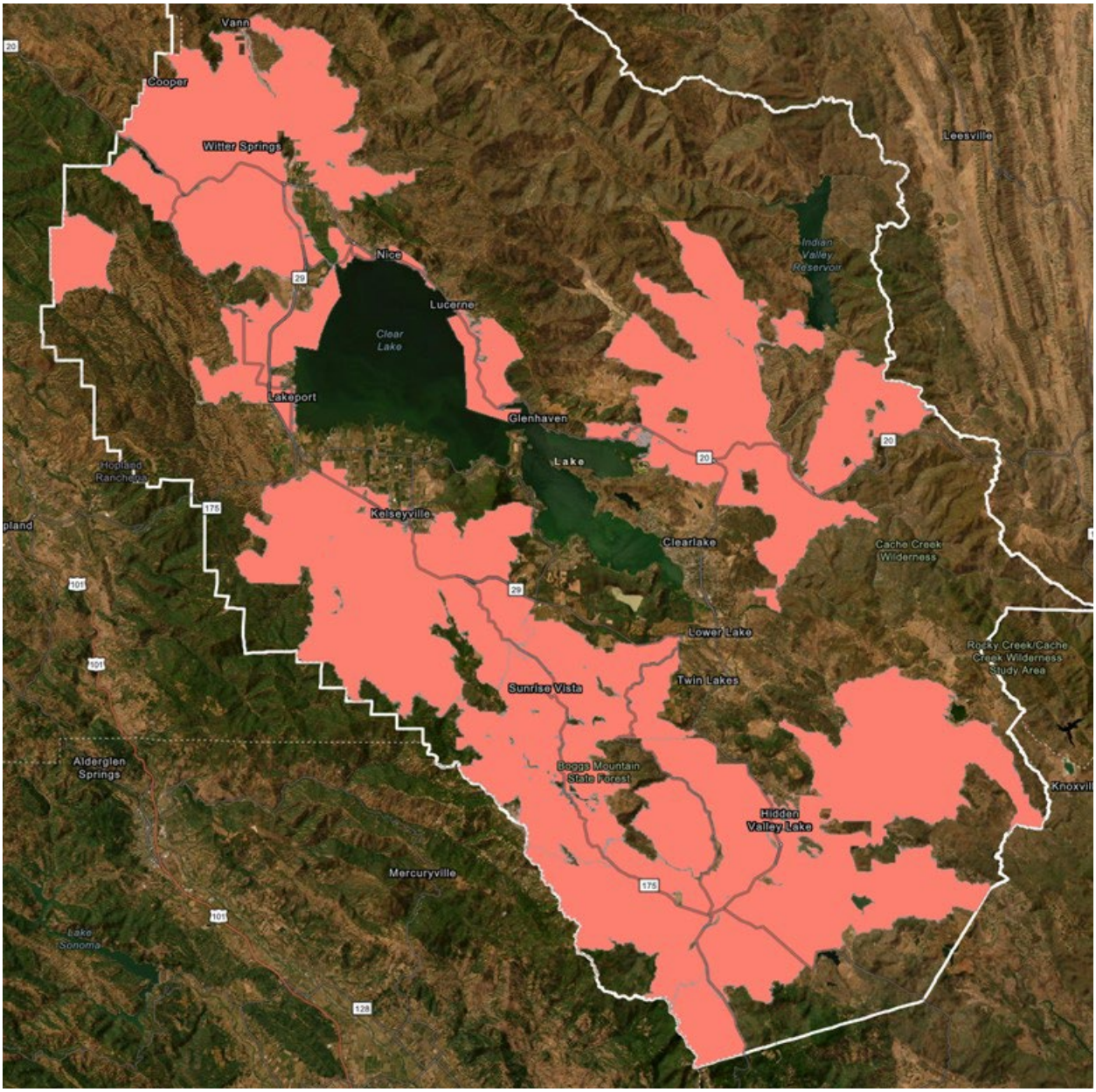


Figure C-3. AT&T's 5 FFA Application Areas. Includes Multiple Areas, in Four Applications, Plus a Small Area that is Included in a Mendocino County Application.

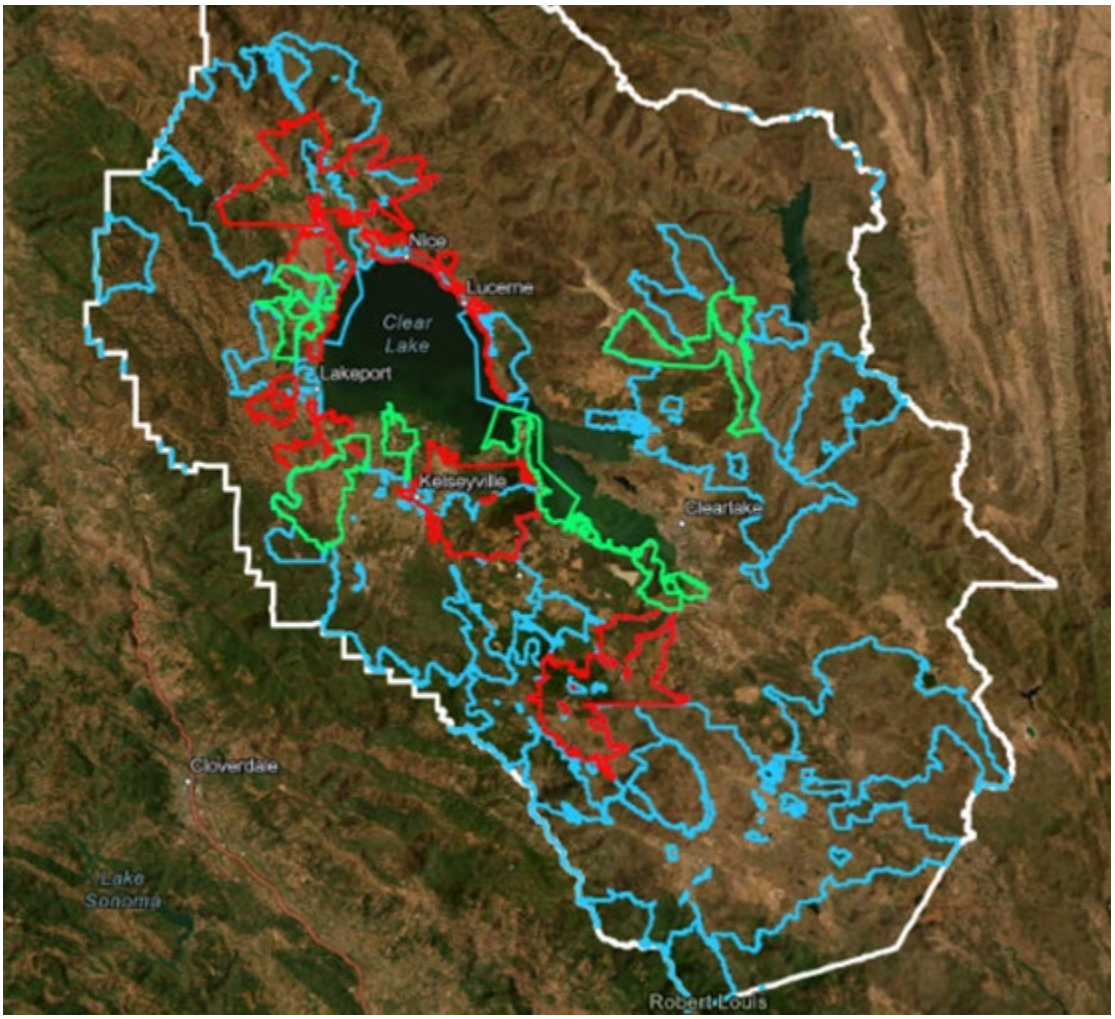
AT&T submitted 4 separate applications for Lake County to the CPUC for FFA Funds as is shown in orange in Figure C-3 above. In addition, AT&T includes a small low-density portion of the County, in the Cow Mountain area adjoining Mendocino County that is included in an application that primarily would serve Mendocino County. AT&T's 4 areas include some overlapping, in less dense areas of the County, that makes reporting of total BSLs to be served

slightly less accurate. However, because the overlaps are in low density areas, the impact will produce a small number of BSLs being duplicated in more than one of AT&T's areas. If AT&T gets awarded funding for all 4 of its Lake County based applications, a total number of 2,922 Unserved/Underserved BSLs would be served if utilizing grant funds.

AT&T's 4 applications ask for a combined total of $15,655,736 to provide broadband speeds of 5 Gbps symmetrical to the 2,922 BSLs that are currently Under/Unserved.

Table C-1. Summary of FFA Applications for Lake County.

Summary of FFA Applications for Lake County			
Applicant	**FFA Funding Applied For**	**New BSLs to be Served**	**Average Cost per new BSL**
Mediacom (MCC Telephony of the West LLC)	$8,429,711	893	$9,440
Golden State Connect Authority (GSCA)	$28,305,451	1,062	$26,653
AT&T - Four Applications in Lake County, Total:	$15,655,736	2,922	$5,358



FFA Project Areas - MCC Telephony of the West LLC

MCC Telephony of the West LLC

FFA Project Areas - Golden State Connect Authority

Golden State Connect Authority

FFA Project Areas - AT&T

AT&T Services, Inc. on behalf of its affiliate Pacific Bell Telephone Company d/b/a AT&T California

Figure C-4. Map Showing the Locations of all Combined FFA Applications. Based on available Funding, Not All of These Areas Will Receive Funding From the FFA Grant Program.

Based on the level of FFA funding available, versus the amounts requested by each of the providers, only some of the proposed areas will be funded. Prior to knowing what FFA award(s) will be made by the CPUC for Lake County, it is not possible to forecast the areas that will benefit from these funds and therefore, it is not possible to know the exact number of BSLs that will go from being Un/Underserved to Served as a result of the FFA funding.

We do know that if the GSCA Application is funded at 100% of the level requested, 1,062 BSLs will become served. The GSCA application would utilize the entire amount allocated (approximately $28,000,000) to Lake County.

In addition, the GSCA Applied for $434,430,000 ($17,540,000 in Lake County) in Loan Loss Reserve (LLR) for 37 member counties to supplement the FFA funds that are received. Attaining Loan Loss funds supports bond issuance and thereby lowers interest rates on financed funds. In the GSCA's Broadband Program Update dated May 7, 2024, it stated that the "GSCA must receive both the FFA Last Mile award and the associated LLR program award to advance a project to construction. Both elements of the financial stack, grant and bond proceeds, are needed to finance a proposed project area."

The Governor's budget has reduced the available LLR, for the entire State, to $50 million, down from the anticipated $750 million. The GSCA has worked to garner the maximum it can from the remaining funds and the entire $50 million has been awarded to the GSCA. The GSCA has since indicated that they have worked with their financial team and will be able to move forward with system deployments as originally planned even with the lower LLR award.

If Mediacom's application to serve 893 BSLs is awarded funding, this would leave approximately $20,000,000 dollars for other applications to be funded. For instance, the applications submitted by AT&T would require $15,655,736 for a total of $24,085,447.71 for 100% of Mediacom's and AT&T's to be constructed resulting in approximately 3,400 BSLs currently Un/Underserved to be provided with broadband.

It is yet to be seen how the CPUC will address applications from multiple providers that overlap with each other. The CUPC has indicated it will not provide funding for areas currently served and it would not fund both providers whose applications overlap areas. The scenario above where Mediacom and AT&T receive 100% of the amounts they applied for in their applications, would include small, lower density areas proposed for network deployment by both providers. The CPUC has not provided additional guidance on how these scenarios will be addressed.

Further, the CPUC had an objection period where the public, for the most part other providers, were allowed to object to proposed areas in providers' applications. The most common objective, overall, was that specific portions of proposed areas are already being served with broadband speeds which meet the minimum speeds, only 25 Mbps download and 3 Mbps upload speeds. Most applications appear to have some level of opposition from 1 or more broadband providers. Of the applications by providers in Lake County, only the Mediacom Application was unopposed. It is unclear what, if any, impact these objections will have on final awards.

It must be noted that only some of the proposed areas will be funded. In the Case of GSCA and Mediacom, they each have multiple portions of the County included in a single application.

AT&T, on the other hand, has 4 application areas plus a small portion of an area that would primarily serve parts of Mendocino County.

The outcome or awards of FFA Grant Funds will greatly impact how the County moves forward with taking identified areas of need and working with one or more providers to apply for future additional funding for broadband deployment.

As of the development of this Implementation Plan, the CPUC has awarded funds to 33 of the State's 58 counties and provided recommendations of funding to 14 additional counties. The CPUC has developed a webpage for announcements showing which Counties have received FFA funding: "Federal Funding Account Recommendations and Awards, Grants Now Being Awarded via Commission Resolution and Ministerial Review". As of December 10, 2024, the County has not received notification of what areas will be chosen to receive FFA funds. This creates a situation of not knowing exactly where funds will be needed for future, non-FFA funded broadband deployments.

As of October 1, 2024, the CPUC has awarded approximately $590,000,000 in funding to numerous private companies and governmental entities. At this time, governmental entities have received approximately 48% of the awarded funds. In addition, private companies have been awarded nearly 37% of the total awards thus far, with Tribal Nation entities receiving a little below 16% of allocated funding.

3. Known Plans of Broadband Providers in Lake County

a. Wireline Providers

Providers are awaiting announcement on which proposed areas will be provided broadband using FFA funds. For the areas proposed for funding but not chosen to receive FFA funds, the providers that applied for these funds will remain interested in similar deployments in the future, because these areas will remain un/underserved. Further, as stated on the CPUC's Federal Funding Account Recommendations and Awards webpage, "An application not recommended for award in an initial Resolution may be recommended for award in a later Resolution."

Because the combined applications and the areas to be served by one or more FFA applicants cover the majority of the populated areas within the County, providers are not looking beyond the FFA process to determine potential areas of expansion. The providers we spoke to don't have any specific plans to build new infrastructure in the County without grant funding, but all of the providers that have been contacted to date have indicated strong interest in continuing to evaluate deployments or expansion of their systems based on any new funding opportunities. This will almost certainly include the upcoming Broadband Equity Access and Deployment Program (BEAD) funding, which all of these providers are also watching for.

Therefore, it becomes a bit of an if/then process for moving forward with additional broadband network deployments, beyond FFA-funded projects. For instance, if Mediacom does not get awarded funding for the portions of the County which it applied for, it would remain interested in working with the County to serve these areas if they are not served by the provider that does receive FFA funding.

Further explained, if the GSCA receives funding to build the areas shown in blue on Figure C-2 above, this would leave several other areas of the County unserved, including the Spring Valley area as these areas are not included in the GSCA Application.

Mediacom showed a high level of interest in serving the Spring Valley area but the number of potential customers, (i.e., the number of addresses that could be served), does not meet its ROI requirements. However, if funding from a new source, other than FFA funding, becomes available, Mediacom would be interested in relooking at the area and working with the County to apply for the funding needed to bring the build back within its corporate ROI requirements.

The same can be said for all other areas currently included in one or more of the providers' applications for FFA funding. Those that are not chosen for an award will very likely remain attractive to the provider that included them in their Application for FFA funding.

All of these areas, potentially with some exceptions where extensions would leverage existing or planned middle mile infrastructure, will then require some level of grant funding from an upcoming source in order for the provider to move forward with network deployment.

b. Wireless Providers

Valley Internet, (VI) which currently provides wireless Broadband Service in portions of Lake County, as shown in green on Figure C-5, indicated that it is very interested in moving into the FTTP marketplace in Lake County as it has created partnerships with companies focused on fiber optic network deployment and management. Valley Internet intends to deploy additional wireless broadband facilities in the County over time and is "'continually looking at upgrades" to its networks. VI indicated that it is testing 6 GHz equipment that would significantly increase the speeds in both the download and upload directions. Although early in the testing of this equipment, it conservatively hopes to provide speeds to individual BSLs in excess of 200 Mbps download and 50 Mbps upload.

Valley Internet sees the merging of technologies in the wireless realm with wireline fiber optic infrastructure to provide FTTP service where practical and the fiber optic network would also be leveraged to provide backbone connectivity to its wireless towers as needed.

The upgrades to 6 GHz radios, if desired after testing is complete, may require funding such as grant funds in order to meet an acceptable ROI. For instance, placement of a new tower, with all required equipment and power, is approximately $75,000 to $100,000. This would be required to serve additional locations in Lake County. Further, upgrading existing locations would require up to a $45,000 investment. With numerous antenna locations in the County, this would constitute a significant need for capital funding.

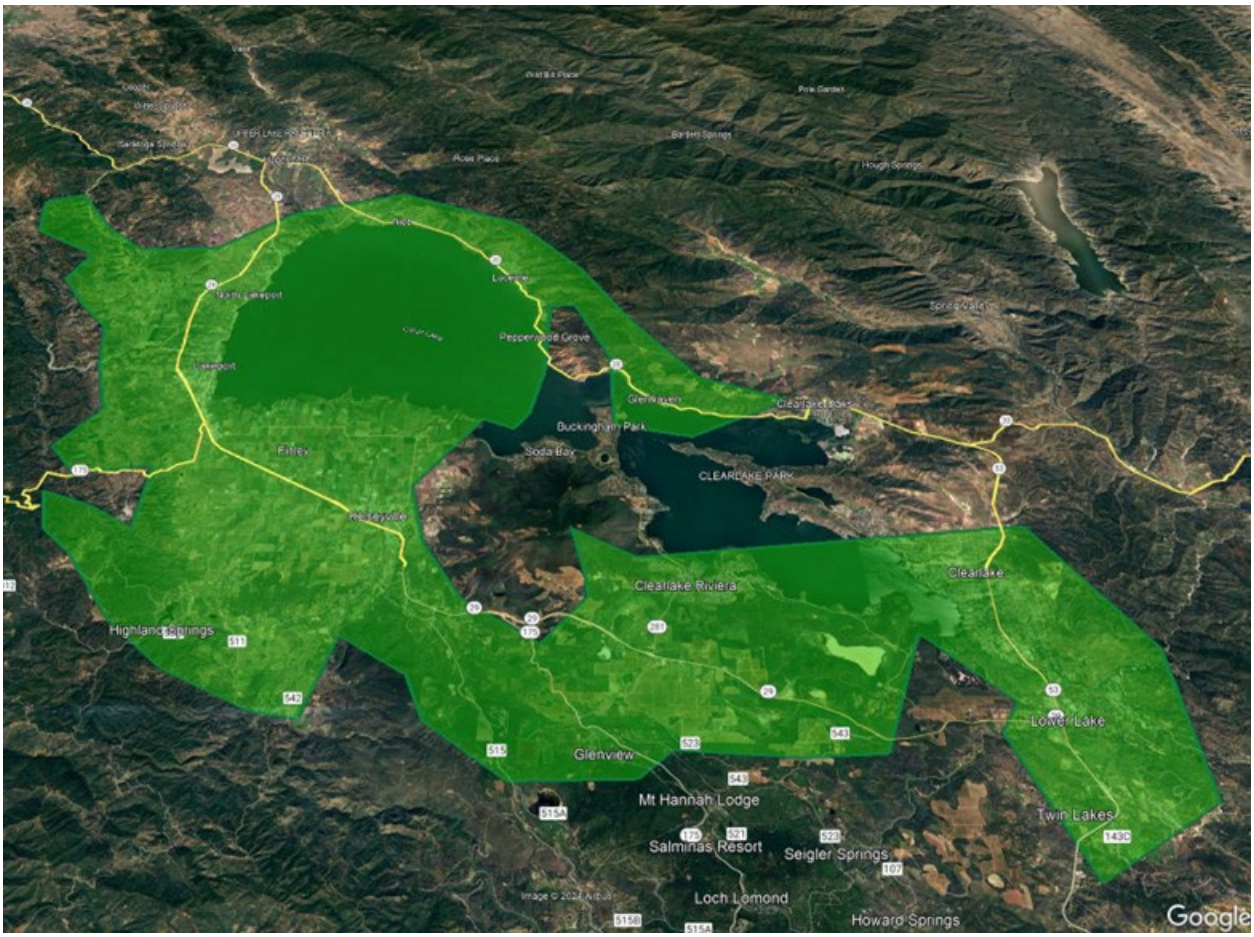


Figure C-5. Map Showing Valley Internet's Current Wireless Footprint.

In addition to the upgrade costs above, Valley Internet's customer premises equipment would need to be upgraded at each existing customer's location to realize the benefit of the enhanced system.

As detailed in the Updated Plan, Digital Path and North Coast Networks had applied to receive funds from the California Advanced Services Fund (CASF). In a February 16, 2024, announcement, the CPUC postponed the deadline for approving CASF Infrastructure applications to June 30, 2024[6]. Further research and emails with a provider that has applied for CASF funds in the past and keeps updated on CASF proceedings have not found any updates to CASF since June 30, 2024.

These CASF applications, not all of which will be accepted, if any in Lake County are, would provide broadband speeds around portions of Clear Lake as the maps in the Updated Plan show. The available CASF funding in each cycle is below the level of funding applied for in the State. Fortunately, CASF has a history of additional funding being made available dating back to 2007. For more historic detail, see: CASF History.

[6] https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/communications-division/documents/casf-infrastructure-and-market-analysis/casf-infrastructure-postponement-letter-2024.pdf

Separate from new system deployment and expansion, Mediacom has been upgrading its existing systems in the Midwest and it anticipates beginning these upgrades in Lake County in 2025. These upgrades will move cable TV channels to an IP format which will free up bandwidth or network capacity for broadband. In addition, the systems are being reconfigured to increase the return portion of the network to allow for significantly higher speeds in the upload direction. Official speeds were not provided by Mediacom during our discussions, but they are projected to be approximately 2 Gbps in the download direction and 1 Gbps in the upload direction (both exceeding the current definitions of broadband) based on information provided in its Objection to AT&T's Application "Lake – 1A"[7].

4. Summary and Recommendations

Substantial broadband infrastructure deployment is planned for Lake County with significant funding being provided by the CPUC through the Federal Funding Account Program. This is a significant step for eliminating some of the problems with the unavailability of broadband in various portions of the County.

The plan for the County at this point in time should be to watch closely how the FFA funding awards evolve. The County will then have a guidepost, based on the winning applications and therefore the non-winning applications, regarding what the next steps for deployment should be.

The County and broadband providers serving the County need to be positioned to prepare for the next funding availability, which may well be the Federal Broadband, Equity, Access and Deployment (BEAD) program funds (see Section F below for more detail on BEAD). These have been coming with delays likely pushing availability of funds into the first half of 2025. This could be good timing, because the FFA funded projects will be well defined and moving forward by that time. This will allow the County and potential partners to make logical and practical determinations of how to move forward to serve even more BSLs or residents and business locations in addition to those served by the FFA funded deployments.

[7] https://broadbandportal.cpuc.ca.gov/s/gms-objection/a0W3d000003O5VTEA0/o0541

Section D

Improving Broadband Internet Reliability, Resilience and Redundancy in Lake County

Section D - Improving Broadband Internet Reliability, Resilience and Redundancy in Lake County

Based on the findings in the Updated Plan, as compiled via a telephone survey, broadband Internet reliability is a significant concern for residents of Lake County. The respondents can be categorized by technology in the order of number of respondents stating that their Internet is unreliable. These are:

- Cable
- Fixed Wireless (all providers combined)
- DSL
- Satellite

Mediacom – CBG had discussions with Mediacom regarding reliability and the company is aware of powering issues caused by the loss of utility power that impacts on its broadband system performance throughout the County. It indicated that these issues are more prevalent away from the population centers. Mediacom has backup power (somewhat similar to Uninterruptible Power Supplies used in data centers) throughout its system and it is capable of adding portable generators at power supply locations when the batteries are running low.

In addition, Mediacom will be upgrading its power supplies, by adding additional batteries and new power supplies, in fire prone areas to have 24 hours of backup power. This will eliminate many of the outages that last less than 24 hours and will make it more workable to get gas powered generators to backup these power supplies when multiple large areas are without utility power.

Further, all proposed deployments or network expansions in Mediacom's FFA Application will be constructed as FTTP technology. This will be an entirely passive network outside of the main headend location and potentially hubs that will have significant backup power to ensure maximum uptime for Mediacom's broadband service in newly built areas.

AT&T – During a meeting with AT&T, the topic of the reliability of its DSL network was discussed. AT&T was frank in stating that its copper network, which is used for DSL, is very old. AT&T works to manage the copper network and keep it running but it is a difficult task. AT&T must continue to maintain this network as it is also the network that was deployed to provide POTS (Plain Old Telephone Service) to homes and businesses throughout the County. This network is considered the "Carrier of Last Resort" by the CPUC. A request was made by AT&T to eliminate the designation in portions of the State. The CPUC rejected AT&T's request and therefore AT&T must continue to "ensure that everyone in California has access to safe, reliable, and affordable telephone service".

AT&T continues to deploy FTTP into areas served by copper wire. This replaces the copper plant, and the DSL provided over it with gigabit service over fiber optic cables. This is the case with all AT&T's applications for FFA funding throughout the State including in Lake County. AT&T does not have the same focus on its copper plant that it once did and until specific copper assets are replaced with fiber optic infrastructure, these DSL lines will be less reliable and provide far lower speeds than AT&T's fiber optic system.

Regarding reliability of fixed wireless systems, CBG talked to Valley Internet and reviewed pictures of some of their antenna locations. Valley Internet has significant backup power at these locations and due to the remote nature and difficult access of many of these sites, propane powered generators are in place to provide power in the event of extended utility power outages. In addition, Valley Internet uses status monitoring that shows all of its tower locations, power supplies and company owned equipment at each customer's location. The system issues alarms to staff of existing or pending problems, including powering issues.

A potential cause of some of the reliability issues experienced by County residents and businesses is that of power outages at the residents' location, when the broadband system itself is available still. When power goes out at a location the modem used to provide internet likely goes out as well (unless a backup system is in place). Therefore, although the providers' networks may actually be operating on backup power, a customer may be trying to use a laptop, cell phone or other battery-operated device but the modem is inactive due to loss of power.

In addition to providers working to improve the reliability of their systems at the network level, the County should pursue working with all of the broadband providers in the County to educate residents and businesses that their internet may be able to continue to operate during a power outage at their facility if backup power is provided to the modem or interface unit between the broadband providers' networks and the customers' equipment. In addition, the County could work with providers to encourage deployment of modems with battery back-up built in or the providers offering separate Uninterruptible Power Supplies (UPSs), which are devices with built in batteries that power equipment for a time during loss of utility power to customers desiring a higher level of availability of service during power outages.

Although specifications of the equipment to be backed up would be required to determine the size of a UPS for a modem, a $100 350 Watt UPS should run a modem for several minutes at a minimum, while a $200, 1050 Watt UPS would run a wireless cable modem for more than an hour without being recharged. Depending on specific needs of the customer, larger, more expensive UPSs can be purchased for longer run times as needed.

Redundancy

Broadband providers generally build redundancy into their networks by building multiple paths for traffic so that the network does not go down in the event of a fiber cut or other catastrophic failure along the network. Because adding alternate paths to a network drives the deployment cost up substantially, alternate paths are generally only provided on the portions of networks carrying large amounts of traffic, such as middle mile segments of networks.

The larger broadband providers often have redundancy deployed in portions of their networks, however, as the network gets closer to the BSLs, redundancy is rare.

The State's Middle Mile network, as currently designed, will allow for providers to utilize the network not only for their primary backhaul needs but can also be leveraged to provide backup or redundancy where the provider does not currently have redundancy built into its network. The State's Middle Mile network has seen some redesigning and slowdowns in deployment since first

proposed. Some portions of the original Middle Mile design have been eliminated and the construction schedule for other areas has been delayed. One such change is the removal of a section of the Middle Mile from Middletown, along Highway 175 to Highway 29 near Kelseyville. This could negatively impact future deployment of networks along this section of Highway 175.

The private providers we have talked to have indicated that they are not counting on the State Middle Mile, as they design system deployments, as the Middle Mile designs and timeline may continue to change. GSCA does plan to heavily rely on the Middle Mile network being in place and current designs will allow for the Middle Mile network to serve all of the GSCA's proposed buildouts in Lake County. When the Middle Mile is completed in the County, the private providers will then look to see what benefits can be achieved from utilizing the network for primary and redundant paths.

In addition to the above noted uses of the Middle Mile network, Big Valley Band of Pomo Indians, Habematolel Pomo of Upper Lake, Middletown Rancheria of Pomo Indians and the Robinson Rancheria of Pomo Indians of California tribes have been exploring developing their own networks and becoming ISPs for residents within their Rancherias utilizing the Middle Mile for backhaul to and from these potential new networks.

The CPUC has indicated that the removal of portions of the Middle Mile network will not negatively impact FFA awarded projects in the State. These projects are described in Section C under Last Mile Federal Funding Account.

Section E

Regional Collaboration and Cooperation

Section E - Regional Collaboration and Cooperation

1. Introduction

Lake County currently participates in regional and multi-regional efforts concerning broadband deployment and adoption. These include:

- **Rural County Representatives of California (RCRC) --** Lake County participates in the RCRC on a variety of joint rural issues including broadband, economic development, agricultural issues and others. Thirty-nine (39) other rural counties are part of the RCRC.

- **Golden State Connect Authority (GSCA) --** Specifically related to broadband, the RCRC members formed the Golden State Connect Authority JPA (Joint Powers Authority) in the last three years to specifically pursue broadband initiatives on a multi-regional, rural county basis. As indicated earlier in this Plan, the GSCA received funds for a Local Agency Technical Assistance (LATA) grant to conduct a broadband engineering study and to design last mile infrastructure to serve unserved and underserved portions of the County, and has applied for funds to build the infrastructure designed and provide services over an Open Access Network (OAN).

  Specifically, the GSCA'a work so far has included low level broadband system design to serve Unserved/Underserved BSLs in the Kelseyville and Nice areas. As discussed in Section C.2, the GSCA recently was conditionally awarded $50 million in LLR, which it can use as credit enhancement to help fund projects like the proposed Lake County broadband build.

- **Upstate California Connect Consortium (UCCC) --** The State-enabled UCCC pairs Lake County with neighboring Glenn and Colusa Counties regarding planning, facilitation, partnership and other activities to help spur broadband availability and adoption in the three-County region. Woodland Community College (WCC) with its Lake County campus outside of Clearlake, also has a campus in Colusa County and its main campus in Yolo County. As discussed in Section G, developing partnerships with WCC can bring in additional regional collaboration opportunities with some synergies related to the UCCC members.

- **Mendocino-Lake Region --** Also as discussed in Section G, the Mendocino Lake Community College District (MLCCD) with its Lake Center campus outside of Lakeport and other campuses throughout Mendocino County, was a natural fit for a regional partnership to pursue a NTIA Competitive Digital Equity Grant.

2. Near Term and Future Broadband-related Collaboration and Cooperation Opportunities

Based on the efforts already in motion and future opportunities, the County should consider involvement and investment in the following:

a. Working with the GSCA -- If the GSCA is successful with its FFA award in Lake County and all necessary funding is put in place, the County will have the benefit of having a portion of the broadband network in the County as an Open Access Network. It should work with the GSCA to ensure efficient, effective and expedient development of the network. The County should also pursue any opportunities to leverage the Open Access Network for creating competitive broadband choices at affordable costs for its residents, as well as opportunities for business and CAI connections.

If the GSCA is not successful with its FFA application, there likely will be other opportunities to pursue Open Access Network development in the County, and the County should continually work with the GSCA to pursue such opportunities

b. Working with the UCCC -- The CPUC makes funding available for each Broadband Consortium to pursue studies, partnerships and other activities that will enhance and expand broadband in the region. Lake County will want to work closely with the UCCC and the other member counties to pursue budgetary funding as it becomes available and leverage it to continue to find ways to deploy infrastructure and services to the unserved and underserved BSLs in Lake County. An example of a neighboring Consortium leveraging the funds provided through the State from the Consortia Grant is the effort by the North Bay North Coast Broadband Consortium (NBNCBC) to develop an RFP and procure a contractor to develop a Wireless Feasibility Study. This Study will be focused on development of wireless infrastructure in those areas that conceivably will not be able to be built with fiber optic cabling because of the extremely high cost.

c. Digital Equity Initiative Regional Partnerships -- The NTIA Competitive Digital Equity grant application made by the County and its Library, in conjunction with the HPUL Tribe and MLCCD, is an example of the type of regional collaboration that digital equity initiative funders want to see. As discussed in the next Section F, this is currently a focus of the State as it develops its final criteria for State capacity grants. The State will consider County-specific applications but encourages collaboration among entities across counties to partner to use combined funds for a larger impact. The County should look at all its potential regional partners and the neighboring counties they serve to develop concepts that will be beneficial to Lake County and to the region as a whole.

Section F

Advocacy and Funding Opportunities at the State and Federal Level

Section F - Advocacy and Funding Opportunities at the State and Federal Level

1. Introduction

It will be extremely important for the County to advocate for its residents, businesses, institutions and community organizations continually, in both the near and long term, at a State and federal level. Specifically, this includes advocating for rules, regulations, policies, procedures and grant support beneficial to the County and its constituencies at the State level before the California Public Utilities Commission ("CPUC" or "Commission") and the California Department of Technology ("CDT"). Further, this also includes advocating with its State representatives for legislative action that promotes broadband deployment and adoption expansion in Lake County and the surrounding region.

Then, at the federal level, it will be important for the County, on its own and working with local government advocacy groups, to advocate at the Federal Communications Commission (FCC), National Telecommunications and Information Administration (NTIA), United States Department of Agriculture (USDA), United States Economic Development Administration (USEDA) and other pertinent federal agencies for beneficial policies, procedures, rules, regulations and grant support at the federal level. These actions should help enable funding and other support to flow down either through the State or directly to local governments such as the County, and, again. focus on expanding and enhancing affordable, high capacity, reliable, resilient broadband Internet access.

Further, at the federal level, the County should work with its federal representatives to ensure that legislation that is anti-local government, decreases competition or that would increase the cost of high-capacity broadband Internet access for its residents, businesses and institutions, does not proceed or prevail. A current example of such is detailed further below.

2. Advocacy before the CPUC

The California Public Utilities Commission (CPUC) is responsible for developing the criteria for and overseeing the deployment of broadband infrastructure in the State. As such, any funds budgeted by the State and approved by the Legislature for the Communications Advanced Services Fund (CASF) to support broadband deployment projects are awarded by the CPUC under guidelines and criteria developed by the CPUC based on legislative requirements. The CPUC is currently awarding Federal Funding Account (FFA) funds to broadband provider applicants throughout the State. It is anticipated to soon be awarded, to one of the applicant entities that applied in Lake County, funding to support broadband expansion in the County. Finally, the CPUC is responsible for developing the applications based on the criteria approved by the NTIA and the State's Broadband, Equity, Access and Deployment (BEAD) Program Proposal Volumes 1 and 2, to distribute $1.86 billion in broadband, equity, access and deployment funds throughout the State. In this regard, it will be important for the County to do the following going forward:

a. Support Budgetary Allocations for Ongoing CASF Grants -- The County should advocate at the State level for the State to continue funding CASF, which may be one of

the prime funding sources for broadband deployment once the federal funding is fully expended. The County should also support CASF applications designed to provide expanded wireline and wireless broadband Internet access to areas of the County that otherwise would not be built without CASF support. The County has provided letters of support for fixed wireless ISPs' CASF infrastructure submissions and should continue to support these endeavors.

b. FFA -- Once the funding is awarded by the CPUC to one of the applicants in Lake County, the County will want to monitor infrastructure and service deployment to ensure that it is being built consistent with the requirements of the award. If the County believes that the awardee is not moving expediently within the schedule set by the Commission, or is not deploying necessary infrastructure, it should make inquiries at the State level to ensure that the State is monitoring and enforcing the use of the funds. This will ensure that Lake County residents and businesses will be provided the advanced infrastructure and services supported by the public funding from the FFA award.

c. BEAD -- The CPUC submitted Volumes 1 and 2 of its Initial BEAD Proposal to the NTIA on December 26, 2023. The NTIA responded with several changes to Volume 1 and enabled the CPUC to cure its Initial Proposal Volume 1. On May 9, 2024, the Commission approved the revised Volume 1 of the Initial Proposal based on the NTIA-requested changes. Regarding Volume 2 of the Initial BEAD Proposal, the NTIA requested numerous changes to that Volume, as well as additional supporting information, and as of August 22, 2024, the Commission provided all remaining required information to the NTIA. Then on September 26, 2024 (issued October 1, 2024), the CPUC promulgated a decision approving the revised Volume 2 of the BEAD program rules based on the NTIA's changes. On October 4, 2024, the NTIA approved Volume 2, thus approving the entire Initial BEAD Proposal of the State.

The CPUC is now in the process of issuing its final BEAD plan which will then begin a 60-day application window for applicants to submit their BEAD-related deployment funding proposals. This will enable the State to review and award the funding to sub-grantees to build infrastructure and provide services throughout the State. It will incorporate all of the BEAD-related activities occurring between now and September 2025 into its final BEAD proposal to the NTIA. Program rules are being encompassed in the final BEAD plan and incorporate final determinations made by the Commission in these and other areas:

i. Defining project areas;
ii. Prioritization;
iii. Projects on Tribal lands;
iv. Developing the extremely high cost per location threshold;
v. De-confliction and negotiation processes and utilizing the extremely high cost per location threshold;
vi. Match requirements;
vii. Low-cost pricing plan requirements;
viii. Middle class affordability plan;
ix. Labor protections; and
x. Workforce development requirements.

The program rules further describe application requirements such as the:

i. Project description;
ii. Sub-grantee financial capacity requirements;
iii. Applicant managerial capability requirements;
iv. Applicant technical capabilities;
v. Sub-grantee compliance with applicable laws and regulations;
vi. Sub-grantee operational capability requirements;
vii. Certification by a professional engineer;
viii. Ownership information; and
ix. Information regarding other public funding.

There were also decisions on:

i. Open access;
ii. Climate assessment;
iii. Contracting requirements;
iv. Cybersecurity and supply chain risk management;
v. Post-grant award monitoring and compliance; and
vi. Non-deployment projects.

Some of the program rules that are likely to be critically important to broadband deployment in the County are:

i. **Project area --** BEAD deployment project applicants may define project areas that are composed of Census Block Groups. They must apply to serve 100% of the serviceable locations within the proposed Census Block Groups, unless the applicant receives a waiver based on the size of their project.

ii. **Prioritization --** The Commission will further prioritize projects to serve unserved and then underserved locations depending upon the amount of BEAD funding available.

iii. **Projects on Tribal Lands --** There must be a Tribal government's consent for BEAD deployment on Tribal lands, and there must be meaningful consultation and collaboration to serve Tribal members living in proximity to Tribal lands.

iv. **Extremely high cost per location threshold --** The extremely high cost per location threshold will be calculated relative to each Project Area Unit (PAU),[8] effectively giving each PAU a benchmark budget that can be adjusted dynamically as projects are progressively selected for awards. The CPUC will also prioritize fiber builds as part of its extremely high cost per location threshold calculation.

[8] A Project Area Unit (PAU) is the geographical boundary comprised of BSLs that do not have access to fixed broadband Internet services.

v. **BEAD confliction and negotiation process --** The process involves five (5) steps including:

a) Scoring;
b) Ranking applications;
c) Preliminary assignment of non-overlapping project areas where the proposed project falls below the extremely high cost per location threshold;
d) De-confliction for applications that overlap project areas beginning with the highest scoring application assigned to a given county where the project falls below the extremely high-cost threshold; and
e) A negotiation process to work with applicants to identify providers for all eligible locations.

vi. **Match requirement --** There is a 25% match requirement that applies to all applications, except projects in designated "high-cost areas" and where other broadband programs may qualify as the match. The NTIA defined the term "high cost" using a cost model that incorporates an area's remoteness, population density, topography, and poverty levels, and measures cost over the life of the broadband network. NTIA further defined "area" to mean Census Block Groups. Using this definition, a high-cost area is a Census Block Group in which at least 80% of the locations are Unserved, and where the cost of building out broadband service is higher than the average for all such Unserved areas. The cost model used to determine the "average cost" utilizes the net present value over the life of the network and assumes that FTTP would be built to every location in the Census Block Group.

A review of the NTIA's "Census Block Group Data" spreadsheet shows that in Lake County, there are 6 such block groups in the County:

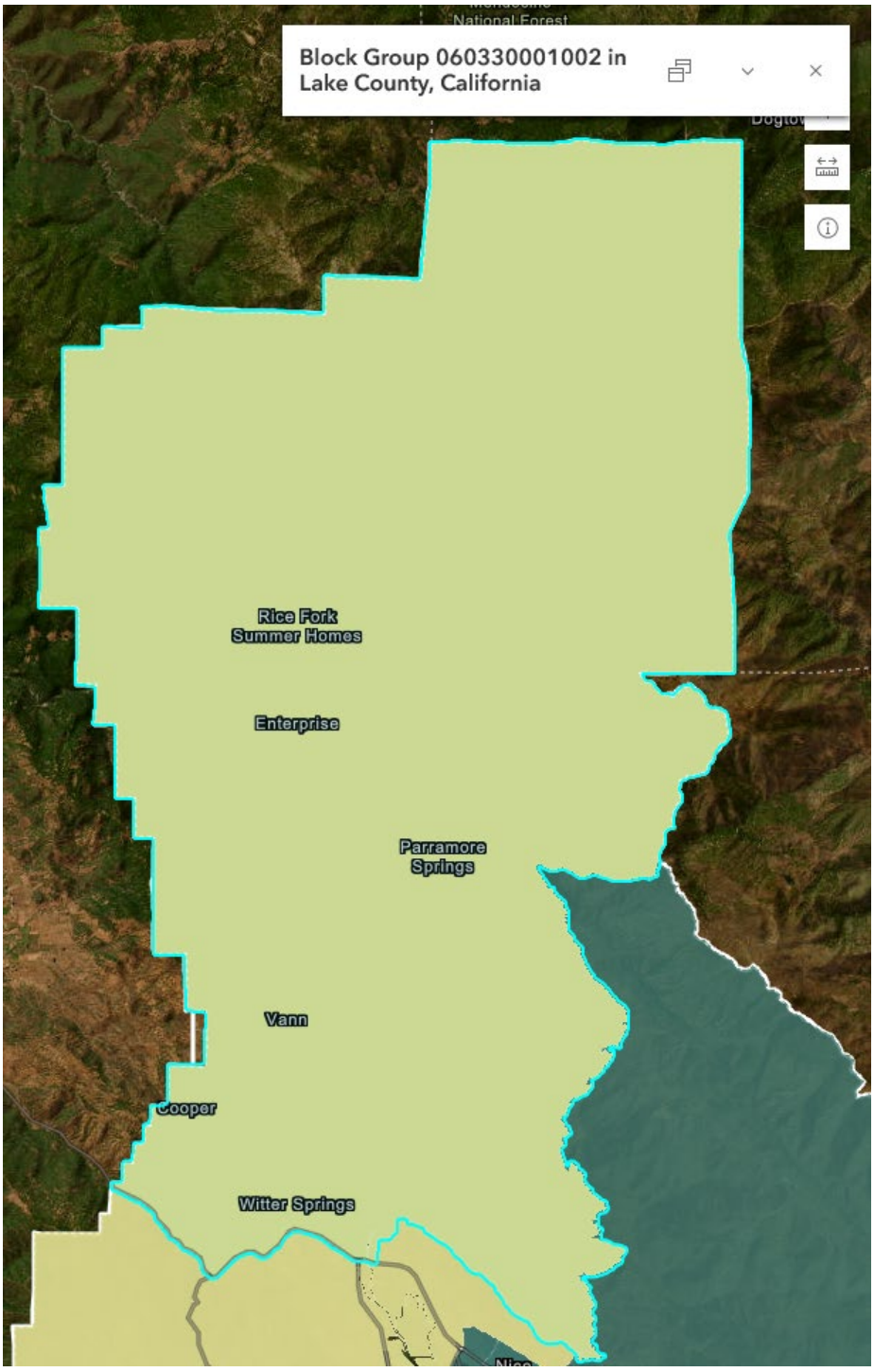


Figure F-1. Block Group #60330001002 - is the entire area above Highway 29 from the border with Mendocino County, east to north of Lucerne and north.

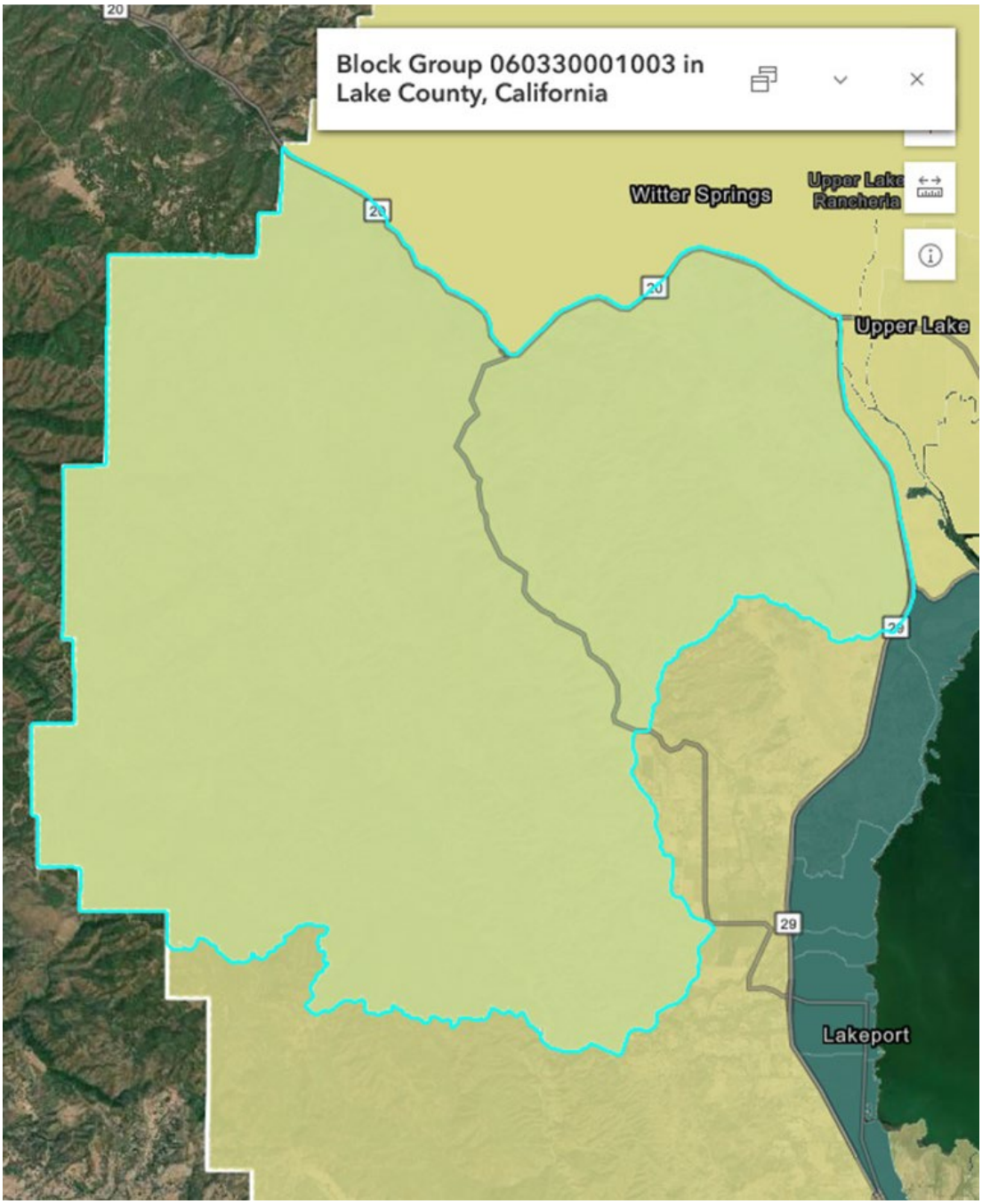


Figure F-2. Block Group #60330001003 - is below Highway 29 south to Scotts Creek Drive, from the border with Mendocino County to west of Lakeport.

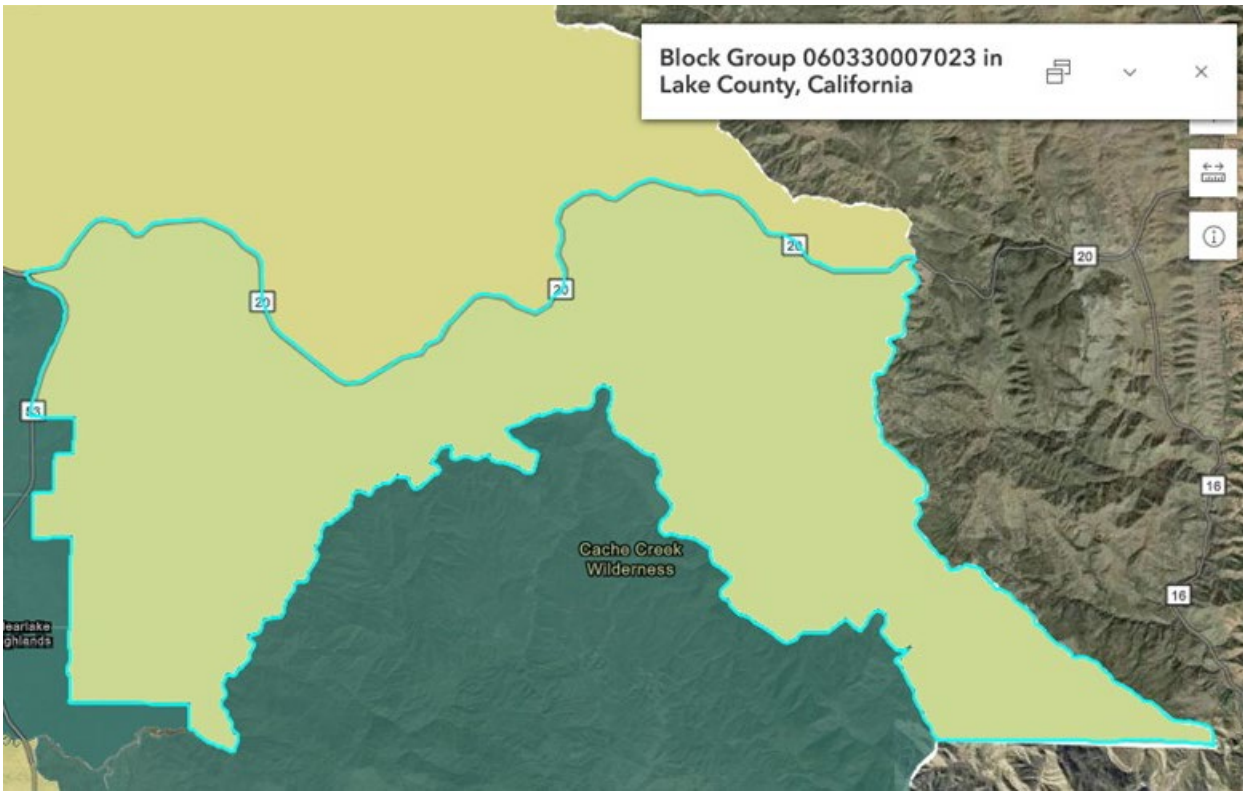


Figure F-3. Block Group #60330007023 - is below Highway 20 south to Cache Creek, from east of Clear Lake east to Calusa and Yolo counties.

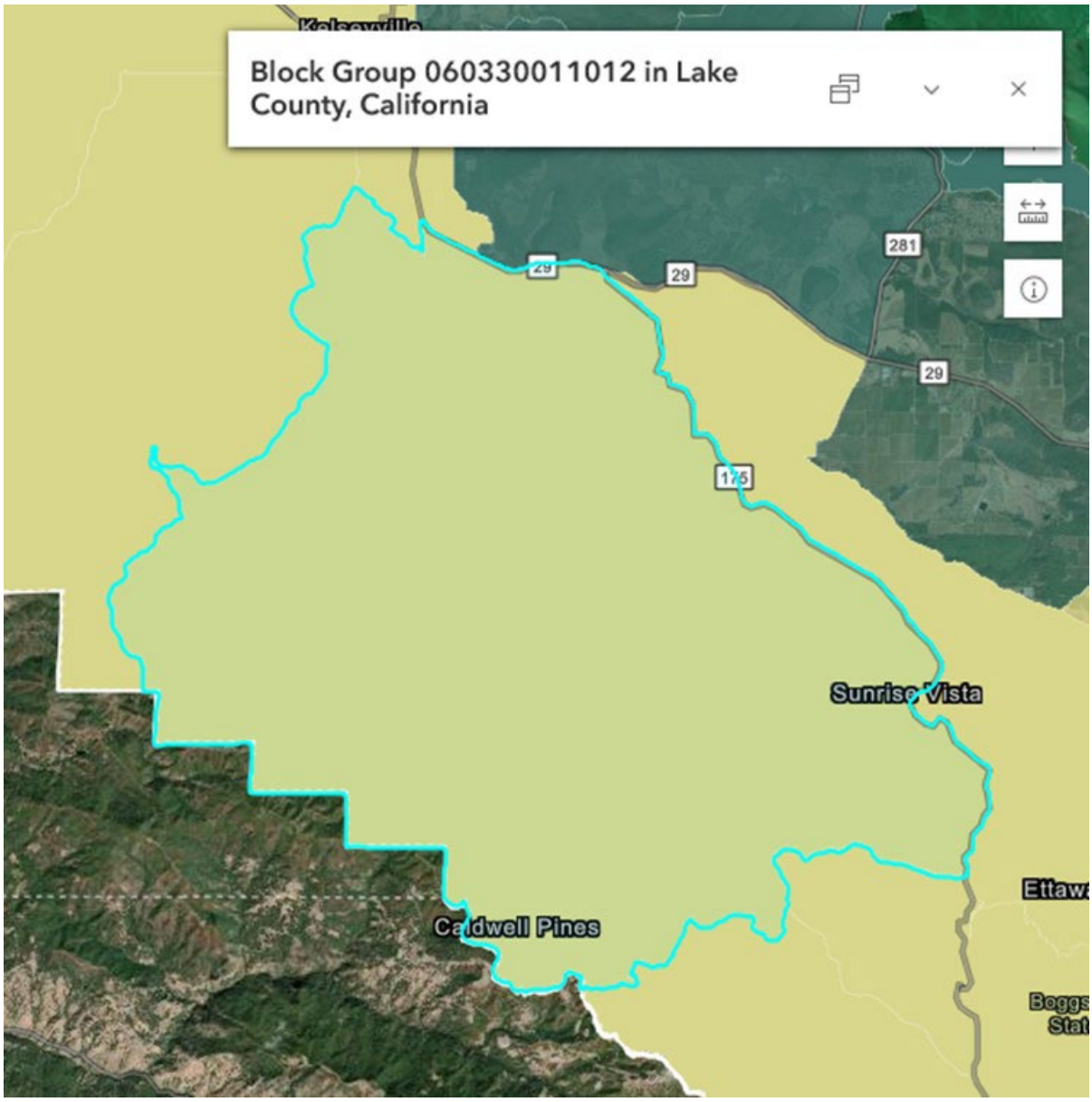


Figure F-4. Block Group #60330011012 – extends from the border with Sonoma County, east-northeast to Glenbrook and wraps around the northern portion of Glenbrook and Hobergs to Highway 175. Then it traverses north to south of Kelseyville, then along Kelsey Creek Drive to the border of Mendocino County.

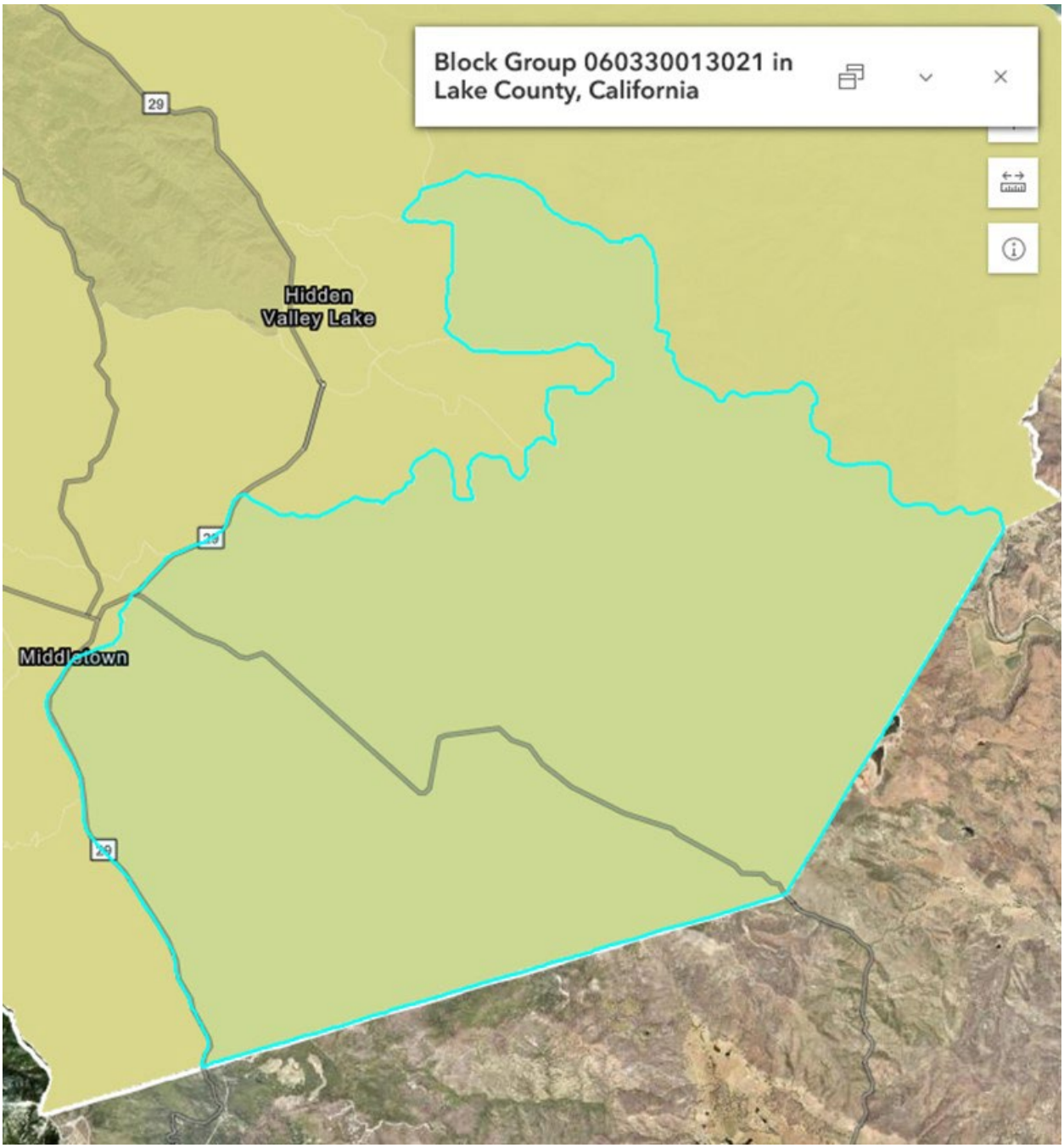


Figure F-5. Block Group #60330013021 - is along the southern border of the County, east and south of Highway 29. This Block Group wraps around the Hidden Valley Lake area and then east to the border with Napa County.

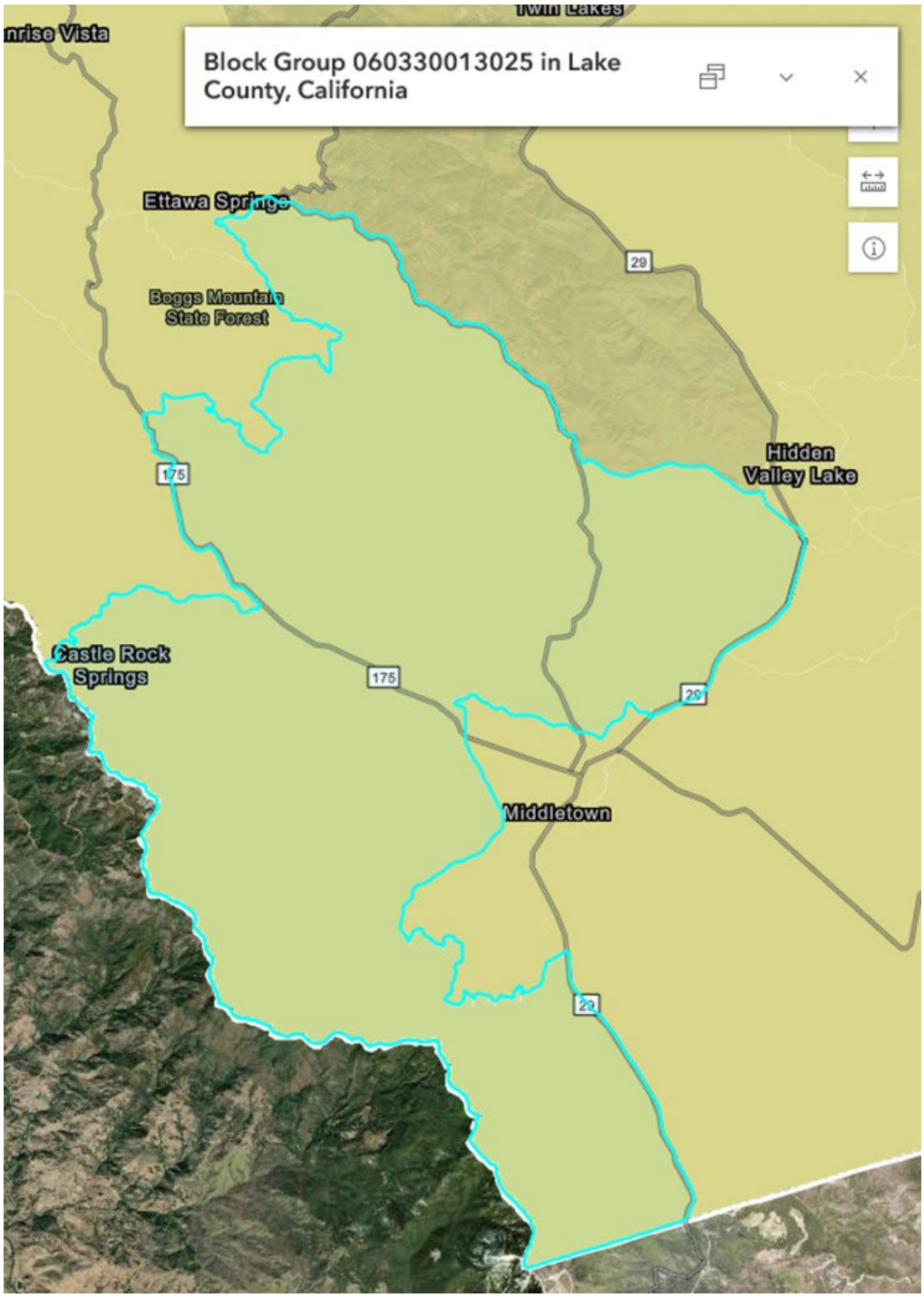


Figure F-6. Block Group #60330013025 - borders Block Group #60330013021 and wraps around Middletown, then traverses north to Hidden Valley Lake and west along Putah Creek then northwest on Big Canyon Road to Ettawa Springs. From there it goes roughly south-southwest to the border of Sonoma County.

vii. **Low-cost pricing plan --** BEAD sub-grantees must offer a low-cost broadband service option at a price of $30 per month for all income-qualified customers with household income below 200% of the federal poverty level. If the applicant provides evidence that this rate is financially unsustainable, it can be raised to a maximum of $50 per month. It may raise the rate based on adjustments in the CPI annually, but must offer the low-cost plan for the life of the infrastructure.

viii. **Middle class affordability service option --** BEAD applicants must include a plan that costs no more than $84 per month, inclusive of all fees and charges, for a plan offering speeds of 100 Mbps download and 20 Mbps upload. While there is no similar requirement to the low cost pricing plan that the middle class affordability service option be available for the life of the infrastructure, BEAD applicants must specify the time that they will offer the middle class affordability service option, and this will be a part of the evaluation by the CPUC of BEAD funding applications. The middle-class affordability service option again, once implemented, will only be able to be raised by the CPI after the first 12 months.

The full program rules are contained in PUC Decision 44-09-050 September 26, 2024, as part of Rulemaking 23-02-016.[9]

d. Ongoing Advocacy -- As the designated agency at the State level related to broadband deployment, the CPUC will be integrally involved in broadband deployment activities and the awarding of grants and other support funding beyond the current programs. It is important that the County stay involved in proceedings at the CPUC and work to impact them, both at the County level and with others in the region, to benefit County residential, business, institutional and community organization constituencies.

3. Advocacy before the CDT

The CDT is the agency responsible for implementing and overseeing Statewide planning and related programs concerning digital equity initiatives, as well as developing the criteria under the State's Digital Equity Plan (SDEP) for distributing $70.2 million in State digital equity capacity grants.

As such, it is important for the County to be involved in and help shape policies, procedures, criteria, guidelines and requirements implemented by the CDT, again, for the benefit of the County's constituencies.

One major effort of the CDT related to digital equity is the current California Digital Equity Capacity sub-grant program. At the time of this writing, the CDT had issued the draft guidelines for the program for public comment. Specifically, once the State's SDEP was approved by the NTIA in April of 2024, $70.2 million in designated grant funding was unlocked to support the SDEP's implementation. These draft guidelines are designed to distribute those funds through competitive grants. The CDT has identified a formula that will pre-allocate specific amounts of

[9] See https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M542/K040/542040659.PDF

funding for each County. The pre-allocation is based on a formula that takes into account for each County:

a. The total population;
b. The total number of members of Covered Populations;
c. Comparative lack of broadband availability and adoption; and
d. A minimum allocation per County of one-half percent.

This formula is applied to each County as part of what the CDT calls "Track One: Regional-Local Ecosystems". The CDT also has a Track Two which is focused on targeted Statewide ecosystems. Track One is focused on funding for specific counties or multi-county regions. A local digital equity ecosystem is a network of digital equity assets in a locality (a regional digital equity ecosystem would be by definition multi-county).

Track One overall was assigned a minimum of 54% of the $70.2 million. Lake County, based on the formula, was allocated 0.9% of the 54%, equating to approximately $341,172.

The State has indicated that any Track One applicant could pursue grants to either: (1) develop and refine local digital equity plans and/or (2) provide capacity to implement digital equity activities directly, or through secondary sub-grants to local Eligible Entities with a focus on local alignment with SDEP strategies, key activities and measurable objectives; local digital equity asset identification and implementation strategies; and long-term sustainability.

Eligible Entities that can apply include:

- Local political subdivisions such as the County or any of its agencies;
- State agencies;
- Tribes:
- Non-profits;
- Community Anchor Institutions;
- Local educational agencies;
- Workforce development program providers; or
- A partnership of Eligible Entities.

The CDT encourages applications from partnerships of multiple Eligible Entities and encourages one application per county representing the partnership of interested Eligible Entities. There can also be partnerships that extend across multiple counties that would focus on funding available from each county added together.

Based on Lake County's experience in working with various partners to apply for both State and federal grants, including the federal NTIA Competitive Digital Equity grant described further below, it is recommended that the County develop a partnership, or through a regional partnership (potentially with other members of the Upstate California Connect Consortium), to apply for a State Digital Equity Capacity sub-grant award to continue to focus on the digital assets and digital literacy skills training and education that it currently pursues and has proposed enhancements related to the federal grant.

Any State grant cannot supplant a federal grant, were the County to receive the Competitive Digital Equity grant that was applied for. However, it was clear that the overall need is greater than the funding requested in the federal grant cycle, and this State funding would supplement and complement any funding awarded at the federal level.

While a more detailed investigation and a proposed program, initiatives, activities and interventions would need to be developed for the State capacity grant application, many local digital equity activities that align with the SDEP that are eligible for funding under the capacity grants are consistent with the activities that need to continue to occur and be expanded in the County, including:

a. Broadband adoption campaigns;
b. Broadband adoption efforts focusing on enrollment in affordable Internet service programs;
c. Digital navigation services;
d. Digital literacy training;
e. Targeted device programs to ensure that devices are relevant, useful and are provided in a manner sensitive to the specific needs of Covered Populations;
f. Establishment and expansion of community computer labs/digital training programs at community centers; and
g. Workforce training programs related to broadband infrastructure and other potential jobs.

The timing of the State capacity sub-grant program shows an anticipated launch on December 6th, 2024, with an application deadline of February 6, 2025, and notices of awards by May 15, 2025.

4. Advocacy before the State Administration and Legislature

Advocacy at the State administrative and legislative level is critical to ensure that policy decisions, legislation and related budgets are developed that are sensitive to and align with Lake County's needs. Once put in place, it is also important for the County to be involved in helping ensure modifications do not detract from the initial expectations and benefits achieved.

This has occurred already with the State's Middle Mile Program which would have provided a fully resilient, fiber ring infrastructure around Clear Lake and made it much more feasible for multiple ISPs to tie into necessary backhaul and provide services throughout the County. While the remaining State middle mile infrastructure still is anticipated to be beneficial to the County, some of the benefits have been reduced by the reduction in the State's Middle Mile Program. The modifications are all related to the vastly increased cost, over time, of the anticipated infrastructure, while at the same time experiencing reduced budgetary funding at the State level. Continued advocacy at the State level to help ensure no further reductions (and potentially bringing back the additional infrastructure in the future when funding allows) will be very important for the County to pursue.

Additionally, when the bulk of the current federal funding is expended, so that only traditional State broadband funding programs remain, it will be helpful for the State to fill some of the gaps by continuing its support efforts both within the deployment and the digital equity arenas. It typically takes substantial advocacy by localities to ensure that broadband-related needs, especially in rural areas, continue to be at the forefront of legislative efforts to promote broadband availability and digital equity as a ubiquitous need throughout the State.

5. Advocacy at the Federal Level

a. U.S. Congress -- Congressional legislation related to broadband can be favorable to states and local governments such as the Infrastructure Investment and Jobs Act (IIJA). It has provided substantial funding for broadband deployment and digital equity initiatives. However, it can also be distinctly unfavorable, such as the currently proposed H.R. 3557, which local governments believe is profoundly misnamed as the "American Broadband Deployment Act of 2023". The H.R. 3557 Bill has been reported out of committee, but so far has not been taken up on the floor, so it isn't likely to be addressed again until 2025.

The Bill proposes to enact multiple new restrictions on state and local land use zoning authority pertaining to the deployment of both wireless and wireline infrastructure, and impose limitations on the ability for local governments to negotiate Rights-of-Way Use Agreements. It is opposed by the National Association of Counties (NACo), the National League of Cities (NLC), the U.S. Conference of Mayors (USCM) and the National Association of Telecommunications Officers and Advisors (NATOA).

Overall, at the federal level, it is important for the County to continue to advocate for the local authority it needs to ensure that broadband deployment can be enhanced and advanced, while still balancing the County's obligations to its residents and businesses to manage the public Rights-of-Way for all users, and utilize its zoning authority to manage efficient and effective development throughout the County for the benefit of all.

Additionally, some analysts believe that the Telecommunications Act of 1996, now passing its 28th year in existence, is ripe for a major overhaul. If this occurs, the County will want to be actively involved in helping shape future federal telecommunications law to provide public benefits to the County's constituencies.

b. The Federal Administration and Its Agencies -- The current Administration has largely been supportive of local government efforts to expand and enhance broadband availability and adoption, especially in rural areas, as the FCC and the NTIA have focused on implementation of the requirements of the IIJA. The FCC largely has taken local government and consumer needs into account when promulgating new regulations.

However, this focus can change markedly with each changing Administration. For example, the FCC under the previous Administration worked in several arenas to preempt local government authority and limit right-of-way compensation and management, especially related to the placement of telecommunications facilities in the rights-of-way. Accordingly, it will be important for the County, similar to having a watchful focus on federal legislation, to also become involved in advocacy against restrictions on local government authority at the federal agency level.

Some in the telecommunications industry work consistently to paint local governments as inhibitors to broadband deployment. Local government associations, such as NACo, have rightly pushed back on that notion by demonstrating the multiple ways in which local governments, such as the County, work with providers to help facilitate effective and efficient use of the ROW to upgrade existing infrastructure, deploy new infrastructure and provide cost-effective broadband Internet services.

6. Funding Availability at the Federal Level

a. BEAD -- The $1.86 billion distributed to California under recently approved State requirements in the State's Initial Proposals Volumes 1 and 2 to the NTIA, are described more fully above in the State description above related to the BEAD program. Until the State releases final application criteria for project areas within Lake County, and providers apply for the BEAD funds for those projects, we won't yet know specifically how the funding will benefit deployment in the County. This should be monitored closely, much like the yet to be decided FFA award for the County, and the results of a BEAD award for applicants in the County factored in, together with the FFA award, to see where any BSLs in the County will remain unserved or underserved.

b. NTIA Digital Equity Grants -- As discussed in detail above, the NTIA initially provided a State Digital Equity Planning grant to California which resulted in the development of California's SDEP, which is now the basis for upcoming applications for State Digital Equity Capacity grants. The funding for the Digital Equity Capacity grants is coming through the $70.2 million allocation to the State from the NTIA.

The NTIA also has $1.25 billion in funding for Competitive Digital Equity grants. As described in more detail in Section G, the County, its Library and partners Mendocino College and the HPUL Tribe, have recently applied for $7.1 million of the federal Competitive Digital Equity grants. This was under the initial round of $750 million in funding. The NTIA anticipates that the other $500 million may be available for a second round of grant awards, depending upon whether all the funding is awarded during the first round. The County will need to continue to monitor the status of its grant application and the potential for subsequent application periods. As discussed above, the County, likely again with partners, will want to apply for a State Digital Equity Capacity grant, since a funding amount has been pre-allocated for Lake County, and will likely be awarded to only one applicant.

c. Other Federal Broadband Availability and Adoption Funding Opportunities:

i. **U.S. Department of Agriculture (USDA) Loans and Grants --** The USDA has two programs that provide loans, grants and grant/loan hybrid funding for broadband infrastructure deployment. The USDA ReConnect program is designed to encourage private sector investment in broadband infrastructure to deploy high-speed Internet service to rural homes, businesses and CAIs. Private or public providers can apply for the loan, grant or loan/grant combination. However, the applicant must be able to supply broadband service simultaneously to all customers in a Proposed Funded Service Area (PFSA). The area has to be rural and 90% of households in the PFSA must lack sufficient access to broadband service. The USDA defines insufficient access as less than the old broadband standard of 25

Mbps download and 3 Mbps upload. The funding must be used to provide service capability of at least 100 Mbps symmetrical download/upload to everyone within the PFSA.

The current round of applications for ReConnect funding is closed, but a new round is anticipated in 2025.

Second, the USDA also provides Community Connect grants regarding service to critical community facilities in rural areas such as public schools, fire stations and public libraries. They can be used for construction, acquisition or leasing of facilities, spectrum, land or buildings used to deploy broadband service. This could include using less than 10% of the grant amount for the improvement, expansion, construction or acquisition of a Community Center that provides online access to the public.

There is a 15% match requirement from the awardee. The current application window is closed, and it is not yet known whether funding will be available for Community Connect grants in 2025.

The USDA also provides broadband technical assistance grants to develop documentation and implementation plans, provide training, coordinate partnerships, and engage in data collection and related activities, all designed to support the expansion of high-speed Internet to rural residents and businesses. Additionally, the USDA provides distance learning and telemedicine grants where local governments, businesses and non-profits can acquire technology that promotes equity in education and medical care and supports economic opportunity in rural areas. Specifically, the funds in these cases can be used to access interactive audio and video equipment, computer hardware, instructional programming and related technical assistance, as well as the broadband facilities that are used for distance learning or telemedicine. The grants' awards range from $450,000 to a ceiling of $1 million and require a 15% match.

It is a competitive grant only program, and the application window for 2024 has closed, but it is anticipated that additional funding will be available in 2025, depending on annual and supplemental appropriations for the USDA from Congress and whether broadband funding will be in the next Farm Bill.

ii. **U.S. Economic Development Administration (EDA) Grants and Loans --** The EDA has two programs that have been used for development of broadband infrastructure. The first is the Public Works Grant Program which is designed to fund investments that support construction, non-construction, planning and technical assistance that leverage existing regional assets to develop infrastructure in areas that support the implementation of economic development strategies which advance new ideas and creative approaches to increase economic prosperity in distressed communities. The other program is the EDA's Economic Adjustment Assistance Program which is focused on communities that have been negatively impacted by changes to their economic ecosystem and other factors negatively

affecting economic development. Both programs are currently under a 2023 NOFO which remains open until all funding is expended. Eligible applicants for EDA financial assistance would include the County, or a special purpose unit engaged in economic or infrastructure development activities, public or private non-profits acting in cooperation with the County, or a regional consortium of local governments. The award for USEDA grants of this type is a minimum of $100,000 with a maximum award of $3 million.

USEDA grants have been used for a variety of broadband enhancement-related purposes (with an associated anticipated enhancement in economic development) by a number of public broadband organizations in the recent past.

iii. **U.S. General Services Administration --** The GSA has a "Computers for Learning" program that is not funding-based, but funnels excess computer equipment from federal agencies to non-profits related to the education of children, including digital literacy training and education. Recipients of the equipment must pay for refurbishing and shipping costs.

iv. **Other Grant Opportunities --** Since so many sectors depend heavily on broadband communications and access to the Internet (such as public safety-related, agriculture-related [including the current high focus on "precision agriculture"], multiple types of human and social services, early childhood education and others), additional grant opportunities for both wireline and wireless broadband deployment are anticipated to be continually available in the future from funders specifically focused on these sectors.

Section G

Expanding Public Access to the Internet and Other Broadband Adoption-Spurring Initiatives

Section G - Expanding Public Access to the Internet and Other Broadband Adoption-Spurring Initiatives

1. Introduction

In the September 2023 Updated Master Broadband Plan, it was discussed that members of multiple Covered Populations utilized public access computer and Internet resources in order to participate more equitably in a variety of online activities. It was also discussed that, while having access to broadband Internet and necessary Internet-capable devices at home was the most useful situation, public access to the Internet and device locations were critical to those that either don't have broadband available at their residence, or because of lack of affordability, lack of devices or the need for facilitation because of lack of digital skills training and education, are not able to engage in necessary activities online.

The various organizations and locations where public access is typically available throughout the County were identified, and their current capabilities and projected needs for the future were discussed. In many cases, funding to support such public access is limited, and this limits the number of devices and support staff that are available to the public.

In this Section of the Implementation Plan, we review a variety of plans and projects that organizations intend to, or could, implement as necessary funding becomes available. This reflects not just continuation, but expansion and enhancement, of current efforts as well as development and implementation of new efforts. Accordingly, if able to be implemented, these efforts would substantially expand public access and help boost broadband Internet adoption for multiple members of Covered Populations throughout the County, and provide all the attendant benefits that increased adoption would provide.

Some of these potential initiatives were recently embodied in a grant application made to the NTIA by the County as the Lead Applicant under the NTIA's Digital Equity Competitive Grant Program.[10] As further explained below, the Lake County Library's (Library) project would expand public access to all Lake County residents. Mendocino College's portion of the project, while aimed primarily at its students (many of which are members of Covered Populations), through partnership with community organizations, would expand access to many throughout the Lake-Mendocino region. The HPUL Tribe's project elements, while primarily aimed at its Tribal members, through working cooperatively with the County, would provide public access to the surrounding community.

These efforts, along with others, are profiled below. Then, in Exhibit G to this Plan, we provide a typical estimated cost needed to implement public access to computers, peripherals and broadband Internet.

[10] See Application to the NTIA regarding its Digital Equity Competitive Grant Program (Funding Opportunity No. NTIA-DECGP-2024) by Lake County, its Library, Mendocino College and the HPUL Tribe to fund the Lake County, CA-Mendocino Regional Digital Equity (DE) Project, submitted September 22, 2024.

2. Organizations Providing Public Access

a. County Agencies -- All public facing locations at County facilities provide public access to high-capacity Internet through Wi-Fi. Often this extends out into the parking lots though the reliability and speed of public Wi-Fi at County facilities could be improved. A universal recommendation for all these locations is to provide enough capacity and access points (APs) to expand the Wi-Fi coverage throughout all areas of the facility where the public will be, and then throughout the parking lot and ground area surrounding the facility. This would provide maximum coverage for people who need consistent, high-capacity, reliable access to gain such when they are receiving services or conducting business with County staff or performing online activities at County locations. It also will enable them to sit in their vehicle or sit outdoors on the grounds in order to gain sufficient access to the Internet, again, for a variety of online activities.

For access outside the facility after the facility is closed, the County would need to develop policies to ensure safe, secure access while on the grounds or in the parking lot.

Regarding individual County agencies:

i. **Lake County Library --** A focal point for public access in the County is the Lake County Library. Recently, CBG worked with the County Administration and the Library to design a portion of the aforementioned Digital Equity project for the NTIA grant application that involved multiple public access components, as well as "loaner", take-home, broadband Internet access devices. This program, if the grant is awarded or other funding becomes available to support it, would expand, enhance and augment the Library's current public access and loaner resources. Specifically, the project would encompass:

a) **Public computer lab upgrades --** The Library currently has public access computers available at each of its four Library locations. However, they need to be upgraded to provide access to the latest technology features and applications so that everyone utilizing them has an experience that is equivalent to those who have up-to-date, personal technology. The Library notes that such upgrades will allow community members, including many members of Covered Populations, to efficiently access educational resources, job opportunities, and essential online services, all of which foster greater digital inclusion.

b) **Digital equity pods --** There are many activities where Lake County residents need modern Internet-capable access devices, such as the proposed upgraded public computers, to perform sensitive, private communications, such as telehealth, job interviews, and other communications involving the transmission and reception of personal and sensitive data. In response to this need, the Library has designed three digital equity pods to be placed in different locations that would allow for soundproofed, private use of technology in a public space. The pods would allow for secure and confidential access to online resources and services and would have all the necessary technology, as well as HVAC, for all of

the booths to enable those without private spaces or the proper Internet connection and technology at home to access it at the Library.

c) **Wi-Fi hotspot and Chromebooks lending --** The Library already lends out hotspots and Chromebooks for those who need such technology to effectively use online resources at home, but don't have either the necessary connectivity or the necessary Internet-capable devices. These loaner devices are well utilized and subject to substantial wear and tear. Accordingly, the Library needs to increase the number of these units in order to be able to continually meet demand.

For example, the Library wishes to expand the number of hotspots from 110 to 400, which would enable Library patrons to check them out for three weeks. It also is looking to establish 250 Chromebooks, and provide them for a loan period of three weeks.

These devices will enable efficient and effective use of online resources at home by residents of all ages for a variety of critical purposes including completing schoolwork, applying for jobs, staying engaged and informed, and applying for services, including online Lake County government services.

d) **One-on-one technology tutoring --** In order to effectively use all of the technological and online resources that the Library provides, it is aware that digital skills training is a key component to maximize effective use. The Library currently provides training as part of its normal customer service duties, including Library technicians who visit senior centers weekly and Tech Tuesday programs. They also answer hundreds of technology reference questions. The Library wants to increase these programs and would need funding support to do so.

e) **Future Lakeport Library Digital Literacy Center --** One of the findings in multiple research studies related to public access locations is that some consolidation of all the types of resources described above (in other words, a "one-stop shop" for all things related to digital literacy and effective use of broadband Internet) is highly beneficial to maximizing effective results. The Library envisions that creating an approximately 7,000 square foot Digital Literacy Center would allow it and partner agencies to meet the continuous substantial needs for digital skills training and public access efficiently at one location. It would continue to provide resources at all of its locations because of the need for having multiple locations for those with limited transportation capabilities, but would benefit from a substantial expansion of digital literacy resources in the main Lakeport location.

ii. **Department of Social Services --** The Lake County Department of Social Services provides public access to the Internet through County-sponsored Wi-Fi at each of its 3 locations. It also, through grant support that it receives, has worked with

senior centers, homeless shelters and directly with its clients to provide laptops and iPads and other Internet access devices to expand digital inclusion and help facilitate access to the local, State and federal assistance services that its clients need. Going forward, it will be important to continue to support these public access opportunities and expand them where feasible, including:

a) **Expand the reach of public Wi-Fi at Social Services locations --** As described above for the Library and all County public facilities, it will be important for the County to expand its public Wi-Fi so that it covers the entire public area (including parking lots) occupied by Social Services for client/public use of the Internet.

b) **Establish ongoing relationships with senior centers, homeless shelters and other organizations to expand public access to the Internet and devices --** Social Services noted that they have worked with senior centers to distribute Internet-capable devices, but that there have not been the anticipated follow-through activities by the centers to take advantage of the grant-supported programs. Accordingly, since organizations like the senior centers and others provide direct public services and can be the most direct connection to members of Covered Populations, the County should consider working to structure formal, ongoing, broadband adoption-spurring programs with centers, shelters and others to provide expanded public access to their clients (i.e., aging individuals, those facing housing instability, those from low income households, etc.). This likely will require dedicated staff interaction, facilitation and grant or other funding support development on the part of both the County and the partner organization, for both the Internet access and the Internet-capable devices.

c) **Provide expansion of in-home access for clients --** Knowing that such access is the most effective way to expand digital equity, where feasible to expand Internet access (e.g., through Wi-Fi hotspot distribution) and the use of Internet-capable devices (e.g., laptops, iPads, etc.), similar to the loaner program already employed by the Library, establishing an ongoing loaner program for Social Services and other agencies to implement, since they deal directly with members of Covered Populations at their home, will also contribute to promoting digital equity within the County.

More information on the potential involvement of Social Services in digital inclusion activities, especially related to promoting digital equity initiatives and the availability of public access and Internet-capable devices, as well as continuing to obtain granular information from County residents, can be found in Section H below.

iii. **Community Development --** The Department of Community Development is involved in planning, zoning and development work where a critical component for success is working to ensure broadband availability. Specifically, Community Development becomes involved in broadband availability and adoption-related

issues concerning: residential housing units in rural areas which lack sufficient broadband infrastructure and services for high-capacity broadband deployment; multiple dwelling units (MDUs) with old infrastructure in need of upgrades that facilitate only substandard Internet access; those facing housing instability; slow replacement of housing destroyed by wildfires and other natural disasters; infrastructure and deployment needs and adoption-related issues concerning special needs and affordable housing development; and ensuring modern infrastructure is included in, and is part of the planning for, any new developments.

Currently, it is in the midst of a long-range planning project called *Lake County 2050* that will help steer the pace, type, nature, direction and location of development in the County over the coming decades. As part of its community engagement work related to its planning efforts, Community Development notes that high-capacity, affordable broadband connectivity is a major priority for the Lake County community at large and needs to be reflected in the County's planning efforts. Specific near term and longer-term broadband implementation activities related to Community Development should include:

a) **Ensuring high-capacity, "smart" broadband deployment for the upcoming Guenoc residential project --** This project, slated to begin in 2025 and establish 4,200 new residential housing units, should be developed with modern broadband deployment. In other words, consistent with other recommendations made in this Plan, broadband infrastructure should be deployed in an efficient and effective manner in the development that results in cost-effective, resilient, high-capacity, modern fiber-optic based infrastructure that will handle the broadband capacity needs of Guenoc residents for years to come. Housing should be pre-wired with cabling that enables broadband connectivity at symmetrical gigabit speeds and utilize materials that do not inhibit Wi-Fi and cellular transmission and reception throughout each unit and its surrounding property. In short, units in the development should be "future proofed" and serve as an example for all ensuing residential developments.

b) **Affordable housing unit and common space development --** Similarly, all future affordable housing (and affordable housing that is renovated) should enable high-capacity, symmetrical wireline and wireless broadband transmission and reception in a "future proofed" and affordable manner. In order to ensure that residents can gain access to the broadband services they need, no matter what their financial circumstances are, there should also be a common area developed that can be outfitted with public access to high-capacity wireline and Wi-Fi services and public access to computers and other Internet-capable devices and peripherals. Especially regarding affordable housing, digital equity measures should be specifically incorporated into development requirements.

c) **Upgrading MDU internal wiring where needed --** One issue related to older MDUs that have not been renovated is that they may have old copper

infrastructure and may not, because of existing agreements with the landlords or property managers, have a high enough capacity broadband service in the building. This, then, impacts everyone trying to have a sufficient wireline Internet connection.

As discussed in Section F of the Implementation Plan, from a federal perspective, some BEAD funding is available for "installing Internet and Wi-Fi infrastructure or providing reduced cost broadband to multi-family residential buildings, with priority given to a residential building that has a substantial share of unserved households or is in a location in which a percentage of individuals whose household income is at or below 150% of the poverty line applicable to a family of the size involved is higher than the national percentage of such individuals".[11]

Ultimately it will depend upon how the funding flows from the NTIA down through the State. We don't yet know exactly what may be available to support this type of MDU internal wiring upgrades. If funding is allocated to support such activities, the County could consider developing an RFI that could be sent to identified multi-family building and property managers to potentially partner with the County for upgrading their infrastructure.

Because such funding will also support Wi-Fi implementation for the building or complex, at a minimum, focus could be placed on developing higher capacity community access (as described above) for free or at a very low subsidized cost.

d) **Long driveways --** One of the more persistent problems with bringing broadband availability, especially to residents in rural areas, is the need to extend the last mile infrastructure from the public ROW to the place of residence on large properties or those that are a substantial distance from the last pole, even along a private road. For new residential units on large lots, development requirements could include conduit placement from the side of the dwelling unit designed for utility entry all the way to the public Rights-of-Way to lessen the cost of installing high-capacity cabling to the resident.

For existing properties, the County may wish to consider, as other localities have done and some states have developed, designating funding for grants specifically focused on supporting the cost of connecting residents with these "long driveways". If funding is not available at the County, it could advocate at the State level for a State-developed or distributed grant fund to help subsidize the cost of connecting residents that are a substantial distance from the point of connection to the common broadband infrastructure. Typically, these grants are distributed via applications made by individual

[11] See BEAD NOFO, page 33, B.4.

residents, and localities and states that have already developed these programs can be used as examples and templates.

e) **Building the above requirements into Local Area Plans --** As Community Development has indicated, it has been actively involved in facilitating Local Area Plan Advisory Committee meetings which will be ending as of the writing of this Report. Subsequently, Community Development will begin drafting the Local Area Plans. Because of the high priority that residents are placing on obtaining affordable, high-capacity, reliable Internet access, no matter where they live in the County, it will be important that the Plans, and the County's overall Comprehensive Plan, incorporate the recommendations described above so that there is a continual focus, both now and in the years to come, on pursuing requirements and activities that will incrementally advance and enhance broadband in the County.

b. Municipal Governments -- The Cities of Clearlake and Lakeport continue to be involved in expanding public access within their jurisdictional boundaries by working to deploy public access to high-capacity Internet in and around City facilities and also in other public spaces, such as public parks. Going forward, it will be important for the County to work with the Cities on additional broadband infrastructure development and adoption-spurring initiatives, including some of the Community Development focuses that apply to more urban areas, such as: upgraded MDU internal wiring; ensuring high-capacity, "smart" broadband deployment in any newly developed housing and business developments; and pursuing development of community spaces equipped with high-capacity Internet access and devices in affordable housing and other multi-family housing developments.

In addition to this, since Clearlake has a community and senior services center and others are in Lakeport and surrounding areas, as well as in Clearlake Oaks and Middletown, it will be important to work with the municipalities and their community partners, along with the County and its Social Services agency, to continue to develop sustainable access to the Internet, devices and, where feasible, digital skills training, to help overcome the digital inequities that many seniors in the County face.

It is important to also reinforce at this point the strength of multiple funders concerning grant support for both deployment and adoption-spurring efforts. Such funders encourage and highly value public-public and public-private partnership efforts, knowing that they typically have greater reach, effectiveness and sustainability than the efforts of only one partner may have.

c. Educational Entities --

i. **K-12 School Districts --** The County Office of Education and the individual K-12 Public School Districts continue, based on available budgetary funding, to support their students and the students' families with Internet-capable device access for the students and, to the extent feasible, loaner hotspot devices for use at home. In some

cases, they also provide after-school access for students to continue their online learning beyond the regular school day.

ii. **Higher Educational Entities --** Both Mendocino College and Woodland Community College are not only involved in supporting the broadband Internet access and the Internet-capable device needs of their students, but also public access to the Internet both on campus and through working with community partners. Specifically:

a) **Mendocino College --** The Mendocino-Lake Community College District ("MLCCD", "College" or "Mendocino College") supports higher educational students' needs in both Mendocino and Lake Counties. It has multiple campuses in Mendocino County, and the Lake Center in Lakeport in Lake County. The College has high-speed, fiber optic-based connectivity between all of its campuses and buildings on campus in both counties, but continues to work to provide high-capacity wireless access throughout each campus. It currently provides loaner hotspots and Chromebooks to students that do not have broadband access at home and provides digital skills training to those students that need it, including advanced skills training as part of workforce development curricula.

As indicated above, the College, along with the County, its Library and the HPUL Tribe, applied for a NTIA Competitive Digital Equity Grant to substantially expand digital equity initiatives for its student population throughout both counties and the region as well as the surrounding community. Specifically, the intended activities and interventions include the following related to students and public access:

1) **Loaner hotspots for all students in need of high-capacity broadband Internet access --** Funding sought from the grant would ensure that all students in need would be provided hotspots as well as hotspot service contracts for access to online course materials wherever the students may be located.

2) **Laptop carts --** These would be provided at all campus locations to facilitate basic digital skills instruction, tutoring and access to College and other online services.

3) **Loaner Chromebooks --** These would be available to students in need of Internet-capable devices to complete assignments for online and in-person courses.

4) **Zoom Rooms --** The College, with support from the grant, would install audio, video and computer equipment to allow teachers and students to both deliver and receive instruction between multiple locations throughout the College District, enabling more efficient

and effective provision of instruction including digital skills training.

5) **Cell phone extenders on campus --** This would enable uniform high-capacity access through smart phones to College services anywhere on campus.

6) **Increased resources for the Zero Cost Textbook initiative --** This would provide online licenses to textbook materials at no cost to students.

7) **Turn It In subscription --** This is an online resource for students which supports them in research, writing and learning to incorporate online resources into their reports and coursework.

Through community partners, MLCCD would work to expand digital skills training and community access to the Internet and Internet-capable devices to the surrounding community. All of these efforts, if able to be funded through the requested grant, would not only substantially enhance the College's current efforts, but also provide new avenues to boost broadband adoption and utilization by students and the surrounding community.

See Section H for discussion on the potential for MLCCD to be involved in promoting other digital equity initiatives beyond its own planned activities, as well as working with the County to continue gathering granular data on the needs of Covered Populations.

b) **Woodland Community College --** Woodland Community College ("WCC" or "College") faces similar challenges to those experienced by Mendocino College. Specifically, many WCC students live in rural areas with limited and unreliable Internet access. Many are members of Covered Populations, including those that live in low-income households, persons of color, English language learners and other related populations facing broadband-adoption issues.

For students in need, the College provides loaner laptops and hotspots. However, the hotspots are not always useful because the student may live in a remote area where "dead zones" are present. In these cases, the students have to spend extra time on campus using the College's public Wi-Fi in order to do their online coursework and research.

The College also has an Adult Education program, and many of these students are supported with loaner devices that they need at home because they can't spend a lot of time on campus because of work and family requirements. The College has extended its hours for providing on-campus services because of the needs of the students to have sufficient online access.

The College's library has also become a community hub where community members come onto campus in order to access the Internet and devices. WCC Wi-Fi is also utilized by community members that have limited transportation, but can get to the College campus in Lakeport and utilize the Internet.

Going forward, the College, in partnership with the County and with necessary support, could:

1) **Expand Wi-Fi and cellular coverage as needed to provide high-capacity wireless broadband across the entire campus property --** Knowing that community members as well as students utilize the public access Internet at the College and that there are some reported coverage issues, where needed, feasible and based on available funding, it will be important to work to increase capacity so that all students and members of the public that rely on such access have it available.

2) **Expand hours as feasible --** To the extent that the County can work with WCC to expand operational hours, both in the evenings and on weekends, this would expand provision of services for students and community members that rely on those services.

3) **Leverage available space to provide more public access to the Internet and computers --** The College has available space that could be utilized as a public access center, but would need an expansion of devices and staff for monitoring and facilitation. If such were made available, it would again work to expand access by students and community members who don't now have such access on a consistent basis. Additionally, if the County and the College can work in partnership to seek funding, a whole suite of digital navigation services could be developed, and the campus could become a focal point for such services as well.

The College also indicated the potential ability to assist the County in continuing to gather ongoing, granular information about the broadband Internet-related needs of students, including adult education students, and the community as a whole that utilize the campus. More information on this is provided in Section H.

d. Tribal Nations -- The Tribes within the borders of Lake County are involved in a variety of digital equity-related initiatives, including expanding both broadband availability and adoption. The Big Valley Band of Pomo Indians, Habematolel Pomo of Upper Lake, Robinson Rancheria – Pomo Indians of California, and Middletown Rancheria of Pomo Indians of California are exploring the development of broadband infrastructure that would connect to the Statewide

Middle Mile in order to provide high-capacity broadband Internet to their Tribal members. Two other specific projects proposed to be implemented include:

i. **Habematolel Pomo of Upper Lake ("HPUL") Tribe -** The HPUL are exploring multiple broadband deployment expansion options for their land north of Upper Lake. This includes pursuing enhancements for emergency communications, such as wildfire evacuation notifications, as well as for broadband Internet overall. Additionally, as described above in Section F, the County, in partnership with the HPUL and Mendocino College, recently developed a joint application to the NTIA to obtain a federal Competitive Digital Equity grant. The project activities and interventions proposed by the HPUL to be implemented based on the grant are designed to help bridge the digital divide within the Tribal community by providing accessible, culturally relevant educational digital skills programs. It would also, through working with the County, make training, education and access to Internet-capable devices and high-capacity Internet available to the surrounding community. The specific activities and interventions include:

   a) **Digital skills training for students, Tribal elders and workforce members --** This would include workshops, online classes, hands-on training and other digital navigation resources in order to improve the ability of Tribal members to utilize technology for education, employment and daily tasks. It would also deliver digital education content that reflects the Tribe's cultural heritage, language and traditions.

   b) **Modern digital skills curriculum --** One of the unique features of the HPUL's project is that it would fund a Curriculum Developer/Trainer that would work to develop a modern digital skills curriculum that would continue to be updated as needed to stay current with technology and applications, but also would be embedded with culturally relevant information that would make it highly accessible to all members of the Tribe.

   c) **Expand access to digital tools and the Internet --** The HPUL would establish a digital hub at the Tribe's Education Center and provide access to high-speed Internet and Internet-capable devices, along with technical support and facilitation. The tech support would also assist Tribal members with their own devices and with their Internet connections, as needed. Then, in partnership with the County, these activities (skills training, tech support, access to the Internet and Internet-capable devices) would be provided to the surrounding community, much like the way that the HPUL currently provides a number of services to the surrounding community at large.

ii. **Big Valley Band of Pomo Indians ("Big Valley") --** The Big Valley Band of Pomo Indians has an approximately 153-acre Big Valley Rancheria outside of Lakeport encompassing 110 homes on Tribal lands, with other Tribal members mostly living in the Soda Bay area. Big Valley households have a number of school-aged children who attend Lakeport and Kelseyville schools, and they also

operate a Boys and Girls Club. Big Valley has pursued infrastructure funds from the NTIA that would provide much higher capacity broadband Internet access to the 110 homes on the Rancheria. It also has a concept for broadband adoption-related activities and interventions, for which it would like to pursue grant support to help develop this program. Specifically, the program would provide:

a) **Economic stability --** Big Valley's proposed digital equity Project includes the provision of an information technology/media arts instructor to support youth access in conjunction with the Boys and Girls Club of Big Valley Rancheria to a broad spectrum of digital education and digital training. This includes multiple areas of training and education that will lead to greater economic opportunities for Tribal youth as they continue education and work towards career opportunities. This proposed training specifically includes classes on web design, media and digital art, and STEM. Additionally, Big Valley's Social Services Division would lead youth entrepreneurship classes to build on the skills taught to lead towards economic opportunity for Tribal youth.

b) **Access to quality education --** By implementing the full-time information technology/media arts instructor along with supporting devices, peripherals, software and applications, Big Valley would be creating both basic and advanced skills training and education for Tribal members that will match high quality education in these subject areas provided to others, which will support digital equity in a culturally-sensitive way. This will also be true of the training and education provided to elderly Tribal members through Social Services, as well as the access to higher education provided by Big Valley's Housing Division to Tribal members facing housing instability.

c) **Access to healthcare --** The portion of the proposed Big Valley Project that focuses on Tribal members facing housing instability specifically is geared towards online access to a variety of services using technology, broadband Internet access, applications and facilitation at no cost to the homeless clients. A critical service that this particular Project component would provide is the ability to access telehealth services.

d) **Social and civic engagement --** Through the various components of the Big Valley Project, there will be multiple opportunities for social engagement and civic engagement, including access to multiple online public resources, as well as engagement with Tribal services through the Housing and Social Services Divisions of Big Valley Rancheria. This would further include engagement through the activities developed in concert with the Boys and Girls Club of Big Valley Rancheria.

e) **Community access to the benefits of Internet technology --** All of the Project components involve Tribal member access to multiple benefits of Internet technology and supporting applications and facilitation of and support for the use of the technology and applications. As noted herein, the

Tribe will also work cooperatively with the County to identify opportunities for the surrounding County community members of Covered Populations to participate in these activities as well.

Section H

Continuing Outreach to, and Engagement with the Lake County Community

Section H - Continuing Outreach to, and Engagement with, the Lake County Community

1. Introduction

The research performed as part of the Broadband Master Plan Update helped more finitely define the Covered Populations in Lake County, and their broadband availability and digital equity needs. Specifically, regarding availability, it defined the areas within Lake County that are unserved and underserved, and the interactive map developed [12] enabled review of the demographic information within those areas that identifies the number and nature of Covered Populations.

Regarding digital equity, the research showed the areas in the County with the lowest digital equity scores and further identified through analysis of existing data and survey data performed as part of the Plan Update, the needs of those Covered Populations related to affordability, accessibility, access to high-capacity Internet and Internet-capable devices at public community locations and at home, and the need for digital skills training and education. Below are recommended outreach and community engagement initiatives that the County should continually pursue in order to ensure that it is effectively connecting with and providing services to those residents, businesses and institutions that suffer from lack of availability, and Covered Populations that face digital inequity.

a. Outreach -- Many jurisdictions perform ongoing outreach through their websites, flyers at libraries and other communal locations, quarterly or other reports at public meetings, and through allied educational and other institutional entities designed to update their constituencies on the progress of broadband expansion within the jurisdiction. They also work with provider, institutional and community partners to continually promote programs that enhance digital equity, such as:

i. Affordable access to the Internet initiatives and programs;

ii. Existing, expanded and new digital skills training and education, including organizations with digital navigators that can help assess the level of training needed and provide it, or point people to those that do;

iii. All locations where public access to high-capacity Internet and Internet-capable devices and peripherals are available, such as at libraries, along with continual updates when such programs are enhanced, expanded or are made available at new locations;

iv. Loaner programs for Internet-capable devices and hotspots, especially for Covered Populations; and

[12] See:
https://brandstrategy.maps.arcgis.com/apps/instant/sidebar/index.html?appid=0383dfc2b43040a69324260f80172a2c

v. The availability of devices with accessibility features for people living with disabilities, where they can obtain them and learn how to most efficiently use them.

The jurisdiction's outreach can also serve as a clearinghouse for information that leads people to other public and private resources besides those that the local government and its local and regional allies may have available, such as private and non-profit organizations and State and federal agencies and programs.

The County should consider devoting part of its outreach budget, across pertinent agencies, on an annual basis to provide continual, updated broadband availability and digital equity-related information. As part of this, it should develop a comprehensive "broadband resources and information" webpage under the County administration or the appropriate agency site where such information can be effectively disseminated and people become aware that it is an essential place to find such information.

b. Community engagement to obtain feedback -- It will be important for the County, on an annual or biennial basis, to continue obtaining granular research on the broadband-related needs of all of its residents, businesses and institutions, especially the Covered Populations.

A good way to do this is through a focused survey, available in English and Spanish, that is user-friendly and can be easily filled out online or using a written version, either at home or at public locations such as libraries, and then compiled and tabulated through a service such as Survey Monkey.

In some cases, such surveys will need facilitation, so the effort may require some staff resources to be devoted during the specified survey timeframe. Some jurisdictions and community partners have good experience obtaining survey results while field personnel are making site visits to those that are provided at-home services, but this will add 10-15 extra minutes to the site visit that need to be calculated into staff time. Potentially agencies like Social Services could become involved in such efforts if enough staff support was available.

In other cases, gathering such information is a part of overall digital navigation and facilitating online application use services provided at locations like libraries. Both MLCCD and WCC have indicated that they could help promote and facilitate the completion of such surveys if staff support was available or additional funding could support necessary staff.

Most jurisdictions that have implemented such a continual community feedback loop effort such as this, have found that the granular information obtained, which helps better focus their digital equity initiatives and thus makes them more efficient and effective, is worth the extra staff resources utilized during the survey timeframe to gather the data.

A website/social media outreach announcement and a printable flyer, with the online survey link, and written survey instruments, in both English and Spanish are included in Exhibit H.

Exhibits

Exhibit A

Updated Lake County Community Anchor Institution (CAI) List

					Verified Speeds	
Institution Name	**Address**	**City**	**Community Anchor Institution Category**	**Current Internet/Network provider**	**Forward Speed (Mbps)**	**Return Speed (Mbps)**
Lake County Sanitation SE Regional TP	2485 Old Highway 53	Clearlake	County Facility	County WAN	WAN Connection to Courthouse	
Lake County Fire Protection District Station 72	13428 Lakeshore Dr.	Clearlake	Public Safety	Mediacom Business Class is Available		
Clearlake Police Department	14050 Olympic Dr.	Clearlake	Public Safety	Mediacom Business Class is Available		
San Sousee	14139 Konocti St.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Adult Day Center Clearlake	14310 Memory Ln.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Clearlake Dialysis Center	14400 Olympic Dr.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Knapp family school	14440 Pearl Ave.	Clearlake	K - 12 Institutions	Mediacom Business Class is Available		
NCO Head Start - Pearl Center	14521 Pearl Ave.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Konocti Instructional Services - Clearlake	14560A Lakeshore Dr.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Neighborhood Christian Fellowship	14660 Olympic Dr.	Clearlake	Other Community Support - Non Government	Mediacom Business Class is Available		
Planned Parenthood Clearlake Center	14671 Olympic Dr.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
American Legion Northern California Coastal Region	14770 Austin Rd.	Clearlake	Other Community Support - Non Government	Mediacom Business Class is Available		
Red Bud Library	14785 Burns Valley Rd.	Clearlake	Library	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Orchard Park Senior Living Community	14789 Burns Valley Rd.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Lake County Fire Protection District Station 70 Headquarters	14815 Olympic Dr.	Clearlake	Public Safety	Mediacom Business Class is Available		
Learning House - P/S	14840 Burns Valley Rd.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Hillcrest House	15035 Hillcrest Ave.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Clearlake SDA Christian	15150 Davis St.	Clearlake	K - 12 Institutions	Mediacom Business Class is Available		
Ferris Home	15190 Konocti View Rd.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Adventist Health Clearlake	15230 Lakeshore Dr.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available	Unknown, sufficient	Unknown, sufficient
Adventist Health Clearlake	15630 18th Ave.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available	Unknown, sufficient	Unknown, sufficient
Highlands Academy	15850 Dam Road Ext.	Clearlake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Richard H. Lewis Alternative	15850 Dam Road Ext.	Clearlake	K - 12 Institutions	AT&T Fiber Optic is Available		
Obsidian Middle School	15850-A Dam Rd.	Clearlake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Blue Heron School (9-11)	15850-A Dam Road Ext.	Clearlake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Yuba Community College, Lake Campus CDC	15880 Dam Road Ext.	Clearlake	Medical/Healthcare	AT&T Fiber Optic is Available		
Woodland Community College	15880 Dam Road Ext.	Clearlake	Upper Education	AT&T Fiber Optic is Available		
Clearlake Senior Comm. Center Sonoma & Mendocino Counties Chapter	3245 Bowers Avenue	Clearlake	Other community support - nongovernment	Mediacom Business Class is Available		
Highlands Senior Center	3245 Bowers Rd.	Clearlake	Other community support - nongovernment	Mediacom Business Class is Available		
Pomo Elementary School (TK-7)	3350 Acacia St.	Clearlake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Pomo Elementary School	3350 Acacia St.	Clearlake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Pomo	3350 Acacia St.	Clearlake	K - 12 Institutions	AT&T Fiber Optic is Available		
Pomo Early Connection	3350 Acacia St.	Clearlake	Medical/Healthcare	AT&T Fiber Optic is Available		
Clear Lake High School (9-12)	350 Lange St.	Clearlake	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Burns Valley Elementary School (K-7)	3620 Pine St.	Clearlake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Meadowood Nursing Center	3805 Dexter Ln.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Benevolent Order Of The Elks #2299	6039 Crawford Ave.	Clearlake	Other community support - nongovernment	Mediacom Business Class is Available		
Harvest Academy	6201 Bay St.	Clearlake	K - 12 Institutions	Mediacom Business Class is Available		
Lake County Fire Protection District Station 71	6905 Old Highway 53	Clearlake	Public Safety	Mediacom Business Class is Available		
Clearlake Creativity School	6945 Old Highway 53	Clearlake	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
NCO Head Start CDC - Meadowbrook Center	6958 Meadowbrook Ave.	Clearlake	Medical/Healthcare	Mediacom Business Class is Available		
Lake County Sheriff's Department - Lower Lake Office	7000 South Center Dr.	Clearlake	Public Safety	Mediacom Business Class is Available		
Northshore Fire Protection District Station 75 Clearlake Oaks	12655 East State Highway 20	Clearlake Oaks	Public Safety	Mediacom Business Class is Available		

					Verified Speeds	
Institution Name	**Address**	**City**	**Community Anchor Institution Category**	**Current Internet/Network provider**	**Forward Speed (Mbps)**	**Return Speed (Mbps)**
East Lake Elementary School (TK-4)	13050 High Valley Rd.	Clearlake Oaks	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
East Lake Early Connection	13050 High Valley Rd.	Clearlake Oaks	Medical/Healthcare	AT&T Fiber Optic is Available		
Clearlake Oaks FS, LNU Clearlake Oaks FS, Station 40	140 Spring Rd.	Clearlake Oaks	Public Safety	Mediacom Business Class is Available		
Cobb Mountain Elementary School (K-6)	15895 Highway 175	Cobb	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Cobb FS, MDT Cobb FS, Station 62	16547 Highway 175	Cobb	Public Safety	Mediacom Business Class is Available		
Northshore Fire Protection District Station 76 Glenhaven	9458 East State Highway 20	Glenhaven	Public Safety	Mediacom Business Class is Available		
Adventist Health Clearlake	18990 Coyote Valley Rd.	Hidden Valley Lake	Medical/Healthcare	Unknown	Unknown, sufficient	Unknown, sufficient
Hidden Valley Lake RV Park/Campground	19234 Hidden Valley Lake Rd.	Hidden Valley Lake	Other community support - nongovernment	Mediacom Business Class is Available		
Hidden Valley FS, MDT Hidden Valley FS, Station 63	19287 Hartman Rd.	Hidden Valley Lake	Public Safety	Mediacom Business Class is Available		
Riviera Elementary School (K-5)	10505 Fairway Dr.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Kelseyville Fire Station	2816 Riviera Heights Dr.	Kelseyville	Public Safety	Mediacom Business Class is Available		
Engle Small Family Home	3480 Knob Cone Dr.	Kelseyville	Medical/Healthcare	Mediacom Business Class is Available		
Kelseyville Community Day	3980 Konocti Rd.	Kelseyville	Other community support - nongovernment	AT&T	1 Gbps	1 Gbps
Ed Donaldson Continuation High School	3989 Gard St.	Kelseyville	Other community support - nongovernment	Mediacom Business Class is Available		
Kelseyville Fire Protection District Station 55	4020 Main St.	Kelseyville	Public Safety	Mediacom Business Class is Available		
Kelseyville Alternate Education	4410 Konocti Rd.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Kelseyville District Office	4410 Konocti Rd.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Kelseyville Learning Academy	4410 Konocti Rd.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Ed Donaldson Education Center	4500 Konocti Rd.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Kelseyville Elementary School (K-5)	5065 Konocti Rd.	Kelseyville		AT&T	1 Gbps	1 Gbps
Kelseyville Early Connection	5065 Konocti Rd.	Kelseyville	Medical/Healthcare	AT&T Fiber Optic is Available		
Mt. Vista Middle School (6-8)	5081 Konocti Rd.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Kelseyville Migrant Head Start	5081 Konocti Rd.	Kelseyville	Medical/Healthcare	AT&T Fiber Optic is Available		
Kelseyville Migrant Head Start - Infant	5081 Konocti Rd.	Kelseyville	Medical/Healthcare	AT&T Fiber Optic is Available		
Adventist Health Clearlake	5290 State St.	Kelseyville	Medical/Healthcare	AT&T Fiber Optic is Available	Unknown, sufficient	Unknown, sufficient
Kelseyville Presbyterian Church Northern California Coastal Region	5340 3rd St.	Kelseyville	Other community support - nongovernment	AT&T Fiber Optic is Available		
Kelseyville High School (9-12)	5480 Main St.	Kelseyville	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
TEP-Kelseyville High School	5480 Main St.	Kelseyville	Other community support - nongovernment	AT&T Fiber Optic is Available		
Specialty Care and Surgery Center	5685 Main St.	Kelseyville	Medical/Healthcare	AT&T Fiber Optic is Available		
Clear Lake CHP	5700 Live Oak Dr.	Kelseyville	Public Safety	Mediacom Business Class is Available		
Kelseyville Fire Protection District Station 56	9757 State Highway 281	Kelseyville	Public Safety	Mediacom Business Class is Available		
Big Valley Rancheria Gym	1002 Osprey Ct.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Lakeport Community 7th Day Adventist Church Northern CA Coastal Region	1111 Park Way	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Lake County Juvenile Home	1111 Whalen Way	Lakeport	Public Safety	AT&T Fiber Optic is Available	County Wan within 0.1 miles	
Renaissance Court	1111 Whalen Way	Lakeport	K - 12 Institutions	AT&T Fiber Optic is Available	County Wan within 0.1 miles	
Lake County Office of Education	1152 South Main St.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lake County ROP	1152 South Main St.	Lakeport	K - 12 Institutions	AT&T Fiber Optic is Available		
Lake County Sanitation NW Regional TP	1155 Whalen Way	Lakeport		County WAN	WAN Connection to Courthouse	
St. John's Episcopal Church	1190 N. Forbes St.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Sheriff Admin	1220 Martin St.	Lakeport	Public Safety	County WAN	WAN Connection to Courthouse	
Sheriff Main Station	1220 Martin St.	Lakeport	Public Safety	County WAN	WAN Connection to Courthouse	
Lakeport Post Acute	1291 Craig Ave	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Central Dispatch	1355 Hoyt Ave.	Lakeport		County WAN	WAN Connection to Courthouse	
Lake County Office of Emergency Services	1375 Hoyt Ave.	Lakeport		County WAN	WAN Connection to Courthouse	

					Verified Speeds	
Institution Name	**Address**	**City**	**Community Anchor Institution Category**	**Current Internet/Network provider**	**Forward Speed (Mbps)**	**Return Speed (Mbps)**
NCC Radio Group Station KXBX	140 N. Main St.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Lakeport Library	1425 N High St.	Lakeport		AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
National Guard Armory	1431 Hoyt Ave.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Lakeport Elementary School (K-3)	150 Lange St.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lakeport Early Connection - P/S	150 Lange St.	Lakeport	Medical/Healthcare	AT&T Fiber Optic is Available		
Hance Community School (7-12)	1510 Argonaut Rd.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Redwood Community Services, Inc. - Lakeport	160 South Main St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lake County Law Library	175 3rd St.	Lakeport	Libraries	Mediacom Business Class is Available		
Lakeport Christian Center Preschool	175 C St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Hospice Services of Lake County	1862 Parallel Dr.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lakeport Dialysis Center	244 Peckham Ct.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Terrace Middle School (4-8)	250 Lange St.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
District Office	2508 Howard Ave.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Natural Continuation High School (9-12)	2508 Howard Ave.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lakeport Alternative School	2548 Howard Ave.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lakeport Community Day School	2548 Howard Ave.	Lakeport	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lakeport Alternative (Home School)	2548 Howard Ave.	Lakeport	K - 12 Institutions	AT&T Fiber Optic is Available		
Lakeport District Office	2548 Howard Ave.	Lakeport	K - 12 Institutions	AT&T Fiber Optic is Available		
Natural High (Continuation)	2548 Howard Ave.	Lakeport	K - 12 Institutions	AT&T Fiber Optic is Available		
Courthouse-Lakeport	255 N Forbes St.	Lakeport		AT&T	1 Gbps	1 Gbps
New Hope Fellowship Northern California Coastal Region	305 Peckham Ct.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Tribal Health Pediatrics and Obstetrics	359 Lakeport Blvd.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lake County Fairgrounds	401 Martin St.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Konocti Christian Academy	401 Martin St.	Lakeport	K - 12 Institutions	Mediacom Business Class is Available		
County Maintenance Yard	4060 Finley East Rd.	Lakeport		County WAN	WAN Connection to Courthouse	
Lakeport Fire Protection District Station 50	445 North Main St.	Lakeport	Public Safety	Mediacom Business Class is Available		
Lakeport Christian Center PS/Daycare	455 South Forbes St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Adventist Health Clearlake	487 S Main St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available	Unknown, sufficient	Unknown, sufficient
Hill Road Correctional Facility	4913 Helbush Rd	Lakeport	Public Safety	County WAN	WAN Connection to Courthouse	
Sutter Lakeside Hospital	5176 Hill Rd. E	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Sutter Lakeside Community Clinic	5196 Hill Rd. E	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Sutter Visiting Nurse Association and Hospice	5196 Hill Rd. E	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lakeport Senior Center Sonoma & Mendocino Counties Center	527 Konocti Ave.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
Mendocino Community Health Clinic-Lakeview Health Center	5335 Lakeshore Blvd.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Rocky Point Care Center	625 16th St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
United Christian Parish	745 N. Brush St.	Lakeport	Other community support - nongovernment	Mediacom Business Class is Available		
EA Family Services-Lakeport	802 Lakeport Blvd.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
NCO Head Start CDC - Lakeport Center	864 & 868 Lakeport Blvd.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Konocti Instructional Services - Lakeport	870 11th St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lake Family Resource Center	896 Lakeport Blvd.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lakeport Police Department	916 North Forbes St.	Lakeport	Public Safety	Mediacom Business Class is Available		
Department of Public Health	922 Bevins Ct.	Lakeport	Other community support - government	County WAN	WAN Connection to Courthouse	
Home With Us, LLC	923 19th St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Lake County Tribal Health Consortium	925 Bevins Ct.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Edel Weiss Guest Home	955 Pool St.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Sutter Lakeside Medical Ractices	987 Parrellel Dr.	Lakeport	Medical/Healthcare	Mediacom Business Class is Available		
Loch Lomond FS, MDT Loch Lomond FS, Station 64	10331 Redwood Rd.	Loch Lomond	Public Safety	Mediacom Business Class is Available		
Konocti CC, LNU Konocti CC	13044 State Highway 29	Lower Lake	Public Safety	Mediacom Business Class is Available		
Lake County Fire Station	13065 Anderson Rd.	Lower Lake	Public Safety	Mediacom Business Class is Available		

					Verified Speeds	
Institution Name	**Address**	**City**	**Community Anchor Institution Category**	**Current Internet/Network provider**	**Forward Speed (Mbps)**	**Return Speed (Mbps)**
Unity Clear Lake Center Sonoma & Mendocino Counties Chapter	15898 Kugelman St.	Lower Lake	Other community support - nongovernment	Mediacom Business Class is Available		
County Maintenance Yard	15970 Kugelman Rd.	Lower Lake		County WAN	WAN Connection to Courthouse	
Department of Social Services	15975 Anderson Ranch Parkway	Lower Lake		County WAN	WAN Connection to Courthouse	
Lower Lake Community United Methodist Church	16255 2nd St.	Lower Lake	Other community support - nongovernment	Mediacom Business Class is Available		
Sheriff Substation Lowerlake (65)	16354 Main St.	Lower Lake		County WAN	WAN Connection to Courthouse	
Lake County Fire Protection District Station 65	16354 Main St.	Lower Lake	Public Safety	Mediacom Business Class is Available		
Brick Hall	16374 Main St.	Lower Lake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Schoolhouse Museum	16435 Main St.	Lower Lake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Lower Lake Elementary School (TK-7)	9240 Lake St.	Lower Lake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Lower Lake Early Connection	9240 Lake St.	Lower Lake	Medical/Healthcare	AT&T Fiber Optic is Available		
Adventist Health Home Care Services	9245 Highway 53	Lower Lake	Medical/Healthcare	AT&T Fiber Optic is Available	Unknown, sufficient	Unknown, sufficient
Konocti Adult School (18+)	9345 Winchester St.	Lower Lake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Adventist Health Clearlake	9430 - C Lake St.	Lower Lake	Medical/Healthcare	AT&T Fiber Optic is Available	Unknown, sufficient	Unknown, sufficient
Lower Lake High School	9430 Lake St Box 759	Lower Lake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Lower Lake High School (9-12)	9430-A Lake St.	Lower Lake	K - 12 Institutions	AT&T Fiber Optic	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Konocti Education Center	9430B Lake St.	Lower Lake	K - 12 Institutions	AT&T Fiber Optic	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
William C. Carle High School (Cont.) (10-12)	9430B Lake St.	Lower Lake	K - 12 Institutions	AT&T Fiber Optic	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Konocti District Office	9430-B Lake St.	Lower Lake	K - 12 Institutions	AT&T Fiber Optic	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Konocti Preschool	9430-B Lake St.	Lower Lake	K - 12 Institutions	AT&T Fiber Optic	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Zemorah Christian Academy	9667 Highway 29, Suite 103	Lower Lake	K - 12 Institutions	Mediacom Business Class is Available		
Highlands Academy (3-8)	9707 Winchester St.	Lower Lake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Lewis Center (Independent Study) (K-12)	9707 Winchester St.	Lower Lake	K - 12 Institutions	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Lucerne Early Connection - Preschool	3351 Country Club Dr.	Lucerne	Medical/Healthcare	AT&T Fiber Optic is Available		
District Office	3351 Country Club Dr.	Lucerne	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Lucerne Elementary School	3351 Country Club Dr.	Lucerne	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Northlake Adult Day Center	3863 Country Club Dr.	Lucerne	Medical/Healthcare	Mediacom Business Class is Available		
Lucerne Alpine Senior Center	3985 Country Club Dr.	Lucerne	Other community support - nongovernment	Mediacom Business Class is Available		
Lake County Fair	401 Martin St.	Lucerne	Other community support - nongovernment	Mediacom Business Class is Available		
Northshore Fire Protection District Station 80 Lucerne Headquarters	6257 7th Ave.	Lucerne	Public Safety	Mediacom Business Class is Available		
Adventist Health Clearlake	6300 E Highway 20	Lucerne	Medical/Healthcare	Mediacom Business Class is Available	Unknown, sufficient	Unknown, sufficient
Middletown Senior Center	15299 Central Park Rd.	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Lions Community Clubhouse	15399 Central Park Rd.	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Middletown FS, LNU Middletown FS, Station 31	15522 Lake St., P.O. Box 428	Middletown	Public Safety	Mediacom Business Class is Available		
Middletown Middle School	15801 Douglas St.	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Middletown Middle School	15846 Wardlaw St.	Middletown		AT&T	1 Gbps	1 Gbps
Minnie Cannon Elementary School	15846 Wardlaw St.	Middletown	Other community support - nongovernment	AT&T Fiber Optic is Available		
Middletown Early Connection	15846 Wardlaw St.	Middletown	Medical/Healthcare	AT&T Fiber Optic is Available		
Lake County International Charter School	15850 Armstrong St.	Middletown	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Coyote Valley Childcare Center - School Age	18950 Coyote Valley Rd.	Middletown	Medical/Healthcare	AT&T Fiber Optic is Available		

					Verified Speeds	
Institution Name	**Address**	**City**	**Community Anchor Institution Category**	**Current Internet/Network provider**	**Forward Speed (Mbps)**	**Return Speed (Mbps)**
Coyote Valley Childcare Center - Preschool	18950 Coyote Valley Rd.	Middletown	Medical/Healthcare	AT&T Fiber Optic is Available		
Coyote Valley Elementary School (K-6)	18950 Coyote Valley Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Middletown Christian School	20853 Highway 29	Middletown	K - 12 Institutions	AT&T Fiber Optic is Available		
Minnie Cannon Elementary School (K-6)	20931 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Minnie Cannon Elementary	20931 Big Canyon Rd.	Middletown	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
District Office	20932 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Loconoma Valley High School (Continuation School)	20932 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Middletown Com. Day School	20882 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Middletown High School (9-12)	20932 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Middletown Middle School (7-8)	20932 Big Canyon Rd.	Middletown		AT&T	1 Gbps	1 Gbps
Middletown Adult Education	20932 Big Canyon Rd.	Middletown	K - 12 Institutions	AT&T Fiber Optic is Available		
Alphabet Soup Children's Learning Center	21075 Bush St.	Middletown	Medical/Healthcare	Mediacom Business Class is Available		
Middletown FS, MDT Middletown FS, Station 60	21095 Highway 175	Middletown	Public Safety	Mediacom Business Class is Available		
Middletown Fire Dept. 175 Sonoma & Mendocino Counties Chapter	21095 Highway 175	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Middletown Library	21256 Washington St.	Middletown	Library	AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Adult Day Center, Middletown	21256 Washington St.	Middletown	Medical/Healthcare	Mediacom Business Class is Available		
Middletown Sheriff Substation	21277 Calistoga St.	Middletown	Public Safety	County WAN	WAN Connection to Courthouse	
Adventist Health Clearlake	21337 Bush St.	Middletown	Medical/Healthcare	Mediacom Business Class is Available	Unknown, sufficient	Unknown, sufficient
St. Joseph's Catholic Church	21396 HWY. 175	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Middletown Adventist	21640 Highway 29	Middletown	K - 12 Institutions	Mediacom Business Class is Available		
Seventh-day Adventist Church	21640 HWY. 29S	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Twin Pine Northern California Coastal Region	22223 CA-29	Middletown	Other community support - nongovernment	Mediacom Business Class is Available		
Robinson Rancheria Community Education Center	1545 East highway 20	Nice	Other community support - nongovernment	Mediacom Business Class is Available		
Northshore Fire Protection District Station 85 Nice	3708 Manzanita Ave.	Nice	Public Safety	Mediacom Business Class is Available		
Manzanita House	3997 Manzanita Dr.	Nice	Medical/Healthcare	Mediacom Business Class is Available		
A Nice Care Home	6784 Crump Ave.	Nice	Medical/Healthcare	Mediacom Business Class is Available		
Upper Lake Library	310 Second St.	Upper Lake		AT&T	Shared 1 Gbps Circuit	Shared 1 Gbps Circuit
Northshore Fire Protection District Station 91 Blue Lakes	5200 West State Highway 20	Upper Lake	Public Safety	AT&T Fiber Optic is Available		
NCO Head Start CDC - Upper Lake	629 2nd St.	Upper Lake	Medical/Healthcare	AT&T Fiber Optic is Available		
Upper Lake High School (9-12)	675 Clover Valley Rd.	Upper Lake	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Upper Lake Adult Education	675 Clover Valley Rd.	Upper Lake	K - 12 Institutions	AT&T Fiber Optic is Available		
Upper Lake Community Day	675 Clover Valley Rd.	Upper Lake	K - 12 Institutions	AT&T Fiber Optic is Available		
Upper Lake Elementary School (K-5)	679 2nd St.	Upper Lake	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Clover Valley High School (Continuation School)	682 Clover Valley Rd.	Upper Lake	K - 12 Institutions	AT&T	1 Gbps	1 Gbps
Upper Lake Middle School (6-8)	725 Old Lucerne Rd.	Upper Lake		AT&T	1 Gbps	1 Gbps
Upper Lake Middle	725 Old Lucerne Rd.	Upper Lake	K - 12 Institutions	AT&T Fiber Optic is Available		
Clover Valley Guest Home	820 Clover Valley Rd.	Upper Lake	Medical/Healthcare	AT&T Fiber Optic is Available		
Northshore Fire Protection District Station 90 Upper Lake	9420 Main St.	Upper Lake	Public Safety	AT&T Fiber Optic is Available		
Healthy Habits Northern California Coastal Region	9440 Main St.	Upper Lake	Other community support - nongovernment	AT&T Fiber Optic is Available		
Big Valley Grange 680	1510 Big Valley Rd.	Finley	Other community support - nongovernment	Mediacom is estimated at 1.5 miles away, AT&T may be closer		
Kelsey Cobb FS, LNU Kelsey Cobb FS, Station 34	8948 State Highway 175	Kelseyville	Public Safety	Mediacom is estimated at 4.5 miles away, AT&T may be closer		
Mount Konocti COM/LO, LNU Mount Konocti COM/LO	8948 State Highway 175	Kelseyville	Public Safety	Mediacom is estimated at 4.5 miles away, AT&T may be closer		
Westlake Seventh Day Adventist	6585 Westlake Rd.	Lakeport	K - 12 Institutions	Mediacom is estimated at 1.5 miles away, AT&T may be closer		
Lakeport Fire Protection District Station 52	3600 Hill Rd. East	Lakeport	Public Safety	Mediacom is estimated at 1.5 miles away, AT&T may be closer		
Moose Lodge 2284	15900 E. Highway 20	Clearlake Oaks	Other community support - nongovernment	Mediacom is estimated at 3.5 miles away, AT&T may be closer		
Northshore Fire Protection District Station 77 Spring Valley	3178 Tamarack Way	Clearlake Oaks	Public Safety	Mediacom is estimated at 1.5 miles away, AT&T may be closer, FFA Applications		

Exhibit G

Basic Concepts for Development of Public Access Computers and Wi-Fi Hotspots

Exhibit G
Basic Concepts for Development of Public Access Computers and Wi-Fi Hotspots

Overview

This Exhibit has been created to offer potential deployment options for publicly available wireless broadband connectivity. This Exhibit is not intended to explain all the elements that need to be considered when designing a wireless network such as frequency bands to be used, security requirements and other network specific criteria and specifications. Rather, the goal of this Exhibit is to provide a basic understanding of how these networks operate in order to provide a starting point for developing a wireless network for public access.

It should be understood that the total cost of such deployment can vary significantly depending on a few key considerations. Some of these are explored below.

Robust Broadband Connection

The first need for a facility-based network deployment is a robust connection to a broadband provider's network. This network can be either a wireline-based network or a wireless network such as a fixed wireless network. This connection needs to have enough capacity to provide an acceptable performance level to each of the devices connected to the network that are being used at the same time.

For demonstration purposes, we provide the following estimated costs based on our findings on providers' websites.

- Mediacom 1 Gbps download by 50 Mbps upload, business class service is $500.00 per month.
- Both AT&T and Mediacom offer fiber optic-based services in areas of Lake County. These services are priced on a specific per-location basis and are designed to recover the cost to build to a location. These services include symmetrical speeds in excess of 1 Gbps with pricing higher than those for DSL or cable modem technologies.

Basic Facility-Based Network Deployments

The most basic network deployment is similar to that in most connected homes today. The network provider supplies a modem or connects to the resident's modem which, in layman's terms, converts data from a format used to transport data over the provider's network to a format that can be utilized by end users' devices. The output of the modem can be connected directly to a user's device or more often is connected to a router. The router makes the data available to multiple devices at the same time.

Wireline Networks

Routers can be wireline devices whereby the connectivity to devices is made using cables or wires to provide Ethernet based data to one or more devices. These wireline networks tend to be in office environments or community spaces such as in a library or senior center, where user devices are generally static in number and locked to specific locations such as in the case of traditional desktop computers and printers.

Picture A-1 Basic Wireline 5 Port Device Router. Approximate cost is $50.00. (Example from Netgear's website[1]).

Basic Wi-Fi Networks

Wi-Fi networks look much the same as wireline networks on a network diagram. Wi-Fi by definition is a set of nonproprietary protocols or standards for wireless networks utilized by computing devices including laptops, desktops, cell phones, printers, etc. The Wi-Fi Alliance[2] is the governing organization reviewing, accepting and setting Wi-Fi specifications.

New versions or standards are continually added to the Wi-Fi family dating back to the mid to late 1990s. Each of these new standards provides significant increases in throughput or speed with a high level of backward compatibility. Wi-Fi 6 and Wi-Fi 6E debuted around the 2019 and 2020 timeframe, with Wi-Fi 7 being the newest version that is being deployed at this time. Wireless Wi-Fi routers come in numerous configurations and are sold by several companies.

Routers are most often sold with a label explaining the router's basic functionality. For instance, an AC1200 router is using version AC (state of the art in/around 2015) and has a throughput of 1,200 Mbps.

Some examples of Wi-Fi Router costs may include:

- AX3000 = $160.00 (Also known as Wi-Fi 6)
- AX5700 = $205.00
- AXE11000 = $478.00 (Also known as Wi-Fi 6E)
- BE19000 = $649.00 (Also known as Wi-Fi 7)

Similar to wireline, a modem or other device converts data to a format that can be utilized by user devices that then is handed off to a wireless router. The wireless router provides the data to an access point which creates a signal that can be transmitted over the air and receives signals from connected devices. This signal can be accessed by multiple devices that are equipped with the receive/send capability that allows them to connect to the network without being wired to the network.

[1] https://www.netgear.com/business/wired/switches/5-port-switch/ . Pictured as an example only. Actual equipment procured would be provided by the selected vendor.

[2] Wi-Fi Alliance, https://www.wi-fi.org/who-we-are

This configuration generally works well in a small one or two room or office facility and can provide connectivity to nearby areas in a building and potentially outside of the building. Many broadband providers offer a modem with a built-in wireless router for as little as $10 per month on top of the monthly service charge.

As indicated below, a full facility Wi-Fi network can be established to offer public Wi-Fi.

Picture A-2 Basic Wi-Fi Router (Example from Best Buy's website[3]).

Expanding a Wi-Fi Network's Footprint

For a larger implementation, a potential downside to a basic deployment of Wi-Fi is that of a limited facility service area or network footprint. Although Wi-Fi routers are advertised for footprints in the range of 2.5-5,000 square feet, in reality these routers will likely provide service to much smaller areas due to issues such as Wi-Fi signals being blocked by walls, floors, office furniture and appurtenances, other device interference, and other inhibitors. There are three generally available options for improving or increasing the coverage area of a wireless network. These are:

- Install a more powerful wireless router with a longer range (also referred to as an "access point" or "AP"). APs with longer ranges or larger footprints often cost more upfront than less powerful APs but the increase in range may be needed to overcome obstacles and walls in a larger office or community space environment.
- Install Wi-Fi Extenders. Wi-Fi extenders receive a Wi-Fi signal, before it becomes too weak, and creates a new network with a similar name. For instance, a network named "Wi-Fi#1" would become "Wi-Fi#1.ext" out of the extender. This provides a larger footprint, but the two networks need to be accessed independently. This means a device must sign into each of the networks separately with separate network names and passwords.

[3] Pictured as an example only. Actual equipment procured would be provided by the selected vendor.

Picture A-3 (above) - Basic Wi-Fi Extender (Example from Amazon's website[4]).

- The third means of increasing the facility's footprint is by creating a mesh network. This method uses multiple APs but they work together to increase the footprint of the network using a single network name. In this scenario, a device sees the network as one large seamless network without a need to drop from one network and join another as is the case with Wi-Fi extenders.

Picture A-4 Google Nest Wi-Fi 3 Unit Mesh Network (Example from Walmart's website[5]).

Potential Costs for Wi-Fi Network Deployment.
Wi-Fi networks have become very affordable to deploy, especially for smaller areas that may need less powerful APs and with APs that are not using the latest frequencies or bands that have become

[4] Pictured as an example only. Actual equipment procured would be provided by the selected vendor.
[5] Pictured as an example only. Actual equipment procured would be provided by the selected vendor.

available. However, as newer versions of Wi-Fi have become standard, although most often backwards compatible, new devices are designed to take advantage of increased speeds afforded by the latest version of Wi-Fi. Therefore, deploying APs with the latest standards, Wi-Fi 7 today, may be the most practical long-term solution even though the cost will be a little higher.

As the desired footprint increases and obstacles such as walls and floors need to be overcome, the best option is most often creating a mesh Wi-Fi network. These networks begin in the range of $200 for 3 APs (one main AP wired to the modem that provides the Wi-Fi signal and also feeds the 2nd and 3rd AP). More sophisticated APs with the latest standards and longer reach can increase the cost of the network to more than $2,300 for three APs.

Potential Additional Upfront Costs
Thus far, we have explained basic Wi-Fi deployment in existing spaces. This includes areas like recreation centers and buildings in parks, libraries, community buildings with public access, school facilities, etc. These locations would also have readily available AC power outlets that are capable of providing utility power to the APs and the modems.

Leasing Facility Space
In cases where an existing facility isn't available, where public Wi-Fi is needed, additional solutions need to be considered. One such solution may be leasing space from a third party to provide space for the AP and modem used to offer public Wi-Fi to the area around the building. If computing space or indoor network access is required, leasing enough space to accommodate workstations, provide facilities such as restrooms and to create the space, likely secured, to house the AP(s) and modem to provide the Wi-Fi network must be included.

These areas will need sufficient AC power outlets for the anticipated powering needs of facility users' devices as well as lighting, and the space will also likely require HVAC or temperature control to keep the space comfortable.

Reviewing office space and strip mall store fronts in Lake County results in an average annual cost of approximately $15.00 per square foot. Using 1,000 square feet as an average of the properties searched, the monthly lease rate would be approximately $1,250.00.

Building Additional Space on an Existing Facility
Where no existing space is available where needed, the next option is to build an addition onto an existing building such as a city park or community center facility. This option is the most expensive upfront option and creates ongoing expenses, a few of which are mentioned below.

We estimate that this would cost an average of $325 per square foot which equates to $350,000 for 1,000 square feet. If financed, after a $35,000 down payment, the monthly mortgage payment would be around $2,100 per month for 240 months at 7% interest. Then additional monthly costs would need to be considered including utility bills, cleaning and maintenance costs, etc. These costs combined would equate to approximately $2,750 per month for a 1,000 square foot space to house a public access computing center.

Public Access Computers

Once space is secured for a public computing center, a number of workstations may need to be deployed to provide a secure method of access to the Internet and the vast on-line opportunities it can offer to those not in a position to obtain their own hardware or Internet access. These workstations should be set up, in addition to providing Internet access, to offer basic applications used in the workplace such as spreadsheet and document software. In our Table G-1 below, we provide estimates for deploying workstations with all necessary hardware, software, virus software and furniture needed in a public access computer center. Additional tables and chairs could be added to provide workspace for individuals who have laptops or tablets but need Internet access only.

Estimated Cost per Workstation[6]	
Refurbished Desktop Computers	$250.00
Monitors	$125.00
Mouse and Keyboard	$50.00
Chair	$75.00
Table/Desk	$100.00
IT Workstation Setup	$100.00
Electrical Configuration* (adding outlets)	$200.00
Setup Cost per Workstation	**$900.00**
* With sufficient breaker panel in place.	
Estimated Recurring Monthly Costs per Workstation	
Software licenses	$25.00
Cyber security and antivirus	$5.00
Average IT support	$35.00
Total Monthly Recurring Costs per Workstation	**$65.00**
Estimated Printer Cost	
Printer**	$250.00
Table	$100.00
Setup Cost per Shared Printer	**$350.00**
**Placed near an existing AC power outlet	
Estimated Recurring Monthly Printer Costs	
Ink and paper	$100.00
Average IT support	$45.00
Total Monthly Recurring Costs per Shared Printer	**$145.00**

Table G-1(above) - Estimated Costs to Set Up Basic Workstations for Public Access.

[6] The computer cost listed here is for cost-effective refurbished desktop computers. The Lake County Library indicates that more advanced, modern, upgraded units which enable a wide range of online applications and basic to advanced skills training would cost approximately $1,663.00 each. Loaner Chromebooks for checking out and use at a patron's residence, including the case and administrative platforms needed, equal approximately $620.00 each. In short, it will be important to choose the appropriate device, and account for the associated cost, for the nature and type of public access digital equity initiatives being pursued.

Summary

Providing a safe, secure environment for persons in the community, who may not have the hardware, software or Internet access they need, to perform functions that require Internet access and associated devices is an important service needed in portions of Snohomish County. Upfront costs can be significant but lower cost solutions or cost sharing with existing entities can be explored. If space is available for development of a public computing center, the upfront cost can be less than $1,000 per workstation with recurring (non-staff) costs as low as around $100 per workstation per month.

The options above show how needing to acquire or build new space can add significantly to the upfront costs, as well as to the recurring costs such as building maintenance, heating and cooling. Options such as moving into vacant space owned by the County or a city or sharing space and costs with non-profit entities can significantly reduce the upfront costs for deployment.

In the case of needing to expand an existing facility or build/lease a new facility, grant funds may be available to help reduce the impact of upfront space acquisition as well as costs related to setting up workstations. These options should be explored prior to building out or leasing facilities to understand any requirements that must be met to qualify for such funding.

Exhibit H

Follow-up Lake County Community Broadband Internet Outreach and Engagement Promotional Materials and Survey Instruments

EXHIBIT H

LAKE COUNTY BROADBAND/INTERNET SURVEY

The County wants your opinion about home Internet/Broadband services in Lake County.

Take a few minutes and take our survey!
Scan the QR Code or Click the URL link below.

https://www.surveymonkey.com/r/Lake_County-Residential_Broadband_Survey

ENGLISH

https://es.surveymonkey.com/r/Condado_de_Lake-Encuesta_de_banda_ancha_residencial

ESPAÑOL

Help us better represent your needs and interests!

WEB INVITATION/SOCIAL MEDIA POST

Lake County Wants to Know: How Satisfied You are with Your Home Internet / Broadband Services?

Lake County is gathering information from residents about home broadband and Internet availability, access, and adoption that will help the County work to provide you with better and more affordable Internet. Please take a few minutes to let us know how members of your household feel about these issues. Your responses are voluntary and anonymous. If you have any questions, please contact the County at 707-263-2360, EXT. 39104.

This important survey can be reached by using the QR Codes or URL links below:

Lake County - Residential Broadband Digital Equity Survey

https://www.surveymonkey.com/r/Lake_County-Residential_Broadband_Survey

ENGLISH

Condado de Lake - Encuesta sobre la equidad digital en la banda ancha residencial

https://es.surveymonkey.com/r/Condado_de_Lake-Encuesta_de_banda_ancha_residencial

ESPAÑOL

THANK YOU FOR FILLING OUT OUR SURVEY!

EXHIBIT H - LAKE COUNTY INTERNET AND BROADBAND RESIDENTIAL NONSUBSCRIBER SURVEY

Dear Lake County Resident: Lake County is gathering information from residents about broadband and Internet availability, access, and adoption that will help the County work to provide you with better and more affordable Internet. Please take a few minutes to let us know how members of your household feel about these issues. Your responses are voluntary and anonymous. You will not be identified, and your responses will only be reported as part of a larger group. If you have any questions, please contact the County at 707-263-2360, ext 39104.

☐ *To qualify to complete the survey you must live within Lake County, CA and, be over 18 years of age.*

1. Are you, and other members of your household, able to access the Internet at your home?

☐ Yes ***(Go to Q2)*** ☐ No ***(Go to Q5)***

2. Do you subscribe to home Internet/broadband services at your home besides your cellphone service?

☐ Yes ***(Please Use the Subscriber Survey)*** ☐ No ***(Go to Q3)***

3. Has your household ever had Internet services at your home?

☐ Yes ☐ No ☐ Don't Know

4. Do you currently use a mobile hotspot device provided by someone else (like a school or library) to access broadband / Internet services at your home?

☐ Yes ☐ No ☐ Don't Know

5. You indicated that you do not have a home Internet subscription. Please tell us why not: ***(Check all that apply)***

☐ Internet costs too much
☐ I don't know how to use the Internet
☐ I don't have a device to access the Internet
☐ I don't know how to get Internet where I live
☐ The available Internet service is too slow / unreliable
☐ I have sufficient access outside the home / use it elsewhere
☐ I don't need or want Internet ***(please explain why not)*** _____
_____
☐ Other ***(please specify)*** _____
_____
☐ My cellphone is all I need
☐ Housing is unstable / temporary
☐ Internet is not available at my home
☐ Support is not in my primary language

Priority of Home Internet for Those Without Access and Who Have Not Adopted.

6. Using a scale from "High Priority" to "Low Priority", what priority level is having home Internet/broadband at your home. ***(Circle #)***

High Priority	Medium Priority	Low Priority	Don't Know
1	2	3	4

7. What would you consider a reasonable cost to pay for home Internet services per month? $_____

8. If home Internet / broadband services were available for free at your home, would you get it?

☐ Yes ☐ No ***(please explain why not)*** _____
☐ Don't Know

Devices to Access the Internet

9. Does your household have any of the following device(s) that can be used to complete Internet-based activities? (i.e., business work, schoolwork, video streaming, etc.)
(*Check all that apply)*

☐ Desktop computer ☐ Laptop computer ☐ Tablet / Chromebook
☐ Hot-spot device ☐ Smartphone/mobile phone/cellphone ☐ Modem/Router
☐ Gaming console that connects to the Internet ☐ No device
☐ Other ***(please specify)*** _____

Use of the Internet Outside of the House

10. Please tell us where you have access to the internet outside of your home.
(Check all that apply)

☐ Work ☐ School/College/University
☐ Non-profit, religious, or cultural center ☐ Hospital or doctor's office
☐ At a local business (coffee shop or restaurant) ☐ Friend's or relative's home
☐ Community or recreation center or senior center ☐ Do not use the internet
☐ Public or free internet area (government building, park, public plaza)
☐ Library
☐ Other ***(please specify)*** _____

11. Do you rely on others to help you with the skills needed to access and navigate the Internet?

☐ Yes ☐ Sometimes
☐ No ***(Go to Q14)*** ☐ Not Really ***(Go to Q14)*** ☐ Don't Know ***(Go to Q14)***

12. Who do you rely on for assistance with using the Internet?

☐ Someone else in my household ☐ Staff at the Public Library
☐ Neighbors, friends, relatives ☐ Teachers at the local school/college
☐ Others, ***(please specify)*** _____

13. If Internet and computer training classes were available for free, would you take them?

☐ Yes ☐ No ☐ Don't Know

<u>Demographics</u>

While **your specific responses will remain anonymous**, we would like to be able to consider your opinions with others like you. Please indicate the following in the space provided:

14. Zip Code _____
15. Highest Grade/Degree completed _____
16. Own or Rent your home or Other _____
17. How old were you on your last birthday? _____
18. Male or Female or Other _____
19. Do you have children under 18 in the home? ☐ Yes ☐ No
20. Race/Ethnicity _____
21. Estimated Annual Household Income or Range _____
22. Are you currently employed? ☐ Yes ☐ No
23. How long have you lived in the County? _____ (Years)
24. Are you a Veteran? ☐ Yes ☐ No
25. Do you or a household member live with a disability? ☐ Yes ☐ No
26. What languages are spoken in the home?

☐ English ☐ Spanish ☐ Ukrainian ☐ Russian ☐ Tagalog
☐ Korean ☐ Vietnamese ☐ Chuukese
☐ Other ***(please specify)***: _____

<u>Other Comments</u>

27. If you have anything else you would like to share with us regarding Internet and broadband in Lake County, please include it here:

_____
_____
_____
_____

Lake County values your input.

Thank you very much for your time completing this survey!

EXHIBIT H - ENCUESTA PARA LAS PERSONAS NO SUSCRITAS A INTERNET O BANDA ANCHA RESIDENCIAL DEL CONDADO DE LAKE

Estimado(a) residente del condado de Lake: El condado de Lake está solicitando información de los residentes sobre la disponibilidad, el acceso y la adquisición de banda ancha y el Internet que ayudará al condado para ofrecerle un mejor y más económico servicio de Internet. Por favor tome unos minutos para compartir las opiniones de los miembros de su hogar sobre estos temas. Sus respuestas son anónimas y completamente voluntarias. Usted no será identificado(a) y sus respuestas solo serán declaradas como parte de un grupo. Si tiene alguna pregunta, comuníquese con el condado al 707-263-2360, ext. 39104.

☐ Para poder participar en esta encuesta, usted debe vivir dentro del condado de Lake, California y ser mayor de 18 de años de edad.

1. ¿Usted y otros miembros de su hogar pueden acceder Internet en su casa?

☐ Sí ***(siga a la P2)*** ☐ No ***(siga a la P5)***

2. ¿Además de servicio de teléfono celular, tienes suscripción de servicios de Internet residencial o banda ancha en su hogar?

☐ Sí ***(complete la encuesta para personas suscritas)*** ☐ No ***(siga a la P3)***

3. ¿Su hogar ha tenido servicios de Internet en algún momento?

☐ Sí ☐ No ☐ No lo sé

4. ¿Actualmente usa un dispositivo de punto de acceso móvil proporcionado por alguien más (como una escuela o biblioteca) para acceder a servicios de banda ancha o Internet en su hogar?

☐ Sí ☐ No ☐ No lo sé

5. Usted indicó que no tiene una suscripción de Internet residencial. Explique por qué no: ***(Marque todas las que correspondan)***

☐ Los precios del Internet son muy altos
☐ No sé cómo usar el Internet
☐ No tengo un dispositivo para acceder a Internet
☐ No hay Internet disponible en mi hogar
☐ No sé cómo conseguir Internet donde vivo
☐ La atención al cliente no está en mi idioma materno
☐ El servicio de Internet disponible es muy lento o no es confiable
☐ Tengo suficiente acceso fuera de mi hogar o lo uso en otro lugar
☐ Solo necesito mi teléfono celular
☐ Mi vivienda no es fija o es temporal
☐ No necesito ni quiero Internet ***(explique por qué no)*** _____
_____
☐ Otro ***(especifique)*** _____

Por favor, pase página →

Prioridad de Internet residencial para aquellos que no tienen acceso y no han adquirido este servicio

6. Utilizando una escala de "prioridad alta" a "prioridad baja", ¿Qué tan importante (nivel alto/bajo) es para usted tener Internet residencial o banda ancha en su hogar? ***(Marque el número con un círculo)***

Prioridad alta	Prioridad media	Prioridad baja	No lo sé
1	2	3	4

7. ¿Cuál considera que es un costo razonable para pagar por servicios de Internet residencial cada mes? $_____

8. Si los servicios de Internet residencial o de banda ancha fueran gratis en su hogar, ¿los adquiriría?

☐ Sí ☐ No ***(explique por qué no)*** _____
☐ No lo sé

Dispositivos para acceder a Internet

9. ¿En su hogar tienen algunos de los siguientes dispositivos que pueden ser utilizados para completar actividades que necesitan Internet (por ejemplo, trabajo comercial, tareas, transmisión de videos/videojuegos, etc.)? ***(Marque todas las que correspondan)***

☐ Computadora de escritorio ☐ Computadora portátil
☐ Tableta o Chromebook ☐ Dispositivo de punto de acceso
☐ Teléfono inteligente, teléfono móvil o teléfono celular ☐ Módem o *router*
☐ Consola de videojuegos que se conecta a Internet ☐ Ningún dispositivo
☐ Otro ***(especifique)*** _____

Uso del Internet fuera de la casa

10. Por favor, indíque dónde tiene acceso a internet fuera de su hogar. ***(Marque todas las que correspondan)***

☐ Trabajo ☐ Escuela, facultad o universidad
☐ Centro sin fines de lucro, religioso o cultural ☐ Hospital o consultorio
☐ En un negocio local (cafetería o restaurante) ☐ Casa de un amigo o familiar
☐ Centro comunitario, de recreación o centro para ancianos ☐ No uso Internet
☐ Área de Internet pública o gratis (edificio de gobierno , parque o plaza pública)
☐ Biblioteca
☐ Otro ***(explique)*** _____

11. ¿Recurre a otras personas para que le ayuden con las habilidades necesarias para acceder y navegar por Internet?

☐ Sí ☐ A veces ☐ No ***(siga a la P14)***
☐ No realmente ***(siga a la P14)*** ☐ No lo sé ***(siga a la P14)***

12. ¿A quién recurre cuando necesita ayuda para usar el Internet?

☐ Alguien más en mi hogar ☐ Personal en la biblioteca pública
☐ Vecinos, amigos o familiares ☐ Maestros en la escuela o facultad local
☐ Otros, ***(especifique)*** _____

13. Si se ofrecieran clases gratuitas de capacitación en Internet y computación, ¿asistiría?

☐ Sí ☐ No ☐ No lo sé

Datos demográficos

Aunque tus respuestas serán anónimas, nos gustaría poder tener en cuenta sus opiniones junto con las de otras personas como usted. Por favor, indique lo siguiente en el espacio proporcionado:

14. Código postal: _____
15. Grado o título más alto completado: _____
16. Alquila o es propietario de su casa u otro: _____
17. ¿Qué edad tenía en su último cumpleaños? _____
18. Masculino o femenino u otro: _____
19. ¿Tiene hijos menores de 18 años de edad en el hogar? ☐ Sí ☐ No
20. Raza o etnicidad: _____
21. Estimado rango de ingresos anuales del hogar: _____
22. ¿Está trabajando actualmente? ☐ Sí ☐ No
23. ¿Cuánto tiempo lleva viviendo en el condado? _____ (años)
24. ¿Es usted un veterano de guerra? ☐ Sí ☐ No
25. ¿Usted o un miembro del hogar vive con alguna discapacidad? ☐ Sí ☐ No
26. ¿Qué idiomas se hablan en su hogar?

☐ Inglés ☐ Español ☐ Ucraniano ☐ Ruso ☐ Tagalo
☐ Coreano ☐ Vietnamita ☐ Chuukés
☐ Otro ***(especifique)***: _____

Otros comentarios

27. Hay algo más que quisiera compartir con nosotros respecto al Internet y banda ancha en el condado de Lake:

_____
_____
_____
_____

Por favor, pase página →

El condado de Lake valora sus aportes.

¡Muchas gracias por tomarse el tiempo de completar esta encuesta!

EXHIBIT H - LAKE COUNTY INTERNET AND BROADBAND RESIDENTIAL SUBSCRIBER SURVEY

Dear Lake County Resident: Lake County is gathering information from residents about broadband and Internet availability, access, and adoption that will help the County work to provide you with better and more affordable Internet. Please take a few minutes to let us know how members of your household feel about these issues. Your responses are voluntary and anonymous. You will not be identified, and your responses will only be reported as part of a larger group. If you have any questions, please contact the County at 707-263-2360, ext. 39104.

☐ *To qualify to complete the survey you must live within Lake County, CA and be over 18 years of age.*

1. Are you, and other members of your household, able to access the Internet at your home beyond just your cell phone?

☐ Yes ***(Go to Q2)*** ☐ No ***(Please Use the Nonsubscriber Survey)***
☐ Don't have a cell phone ***(Please Use the Nonsubscriber Survey)***

2. What type of home Internet service do you have at home? ***(Check all that apply).***

☐ Cable or fiber broadband (Mediacom, AT&T)	☐ Cellular/Mobile broadband (T-Mobile, Verizon, AT&T)
☐ DSL (via wireline telephone network; AT&T copper line)	☐ Fixed wireless (wireless antenna to home router)
☐ Public/Community Wi-Fi	☐ Satellite (HughesNet / Starlink)
☐ Mobile hotspot	☐ Other (please specify) _____

Success of Home Internet Activities

3. Are all members of your household able to complete all the Internet activities you need and want, including video streaming and uploads?

☐ Yes ***(Go to Q5)*** ☐ No ***(Please describe what you can't do)***

_____

Barriers to Reliable Internet

4. What, if any, are the primary barriers to having sufficient and reliable Internet access at your home? ***(Check all that apply)***

☐ None ☐ No Availability ☐ Affordability / Cost
☐ Speeds too slow (Insufficient Access) ☐ Accessibility (e.g., lack of necessary devices)
☐ Unreliable Service / Cuts in and out (Inconsistent Access)
☐ Other, please describe _____

_____

Please turn page →

5. How much do you currently pay, per month, to have Internet/Broadband services at your home? $_____

6. What would you consider a reasonable cost to pay for home Internet services per month? $_____

Devices to Access the Internet

7. Which of the following device(s) does your household have to complete Internet-based activities? (i.e., business work, schoolwork, video streaming, etc.)? ***(Check all that apply)***

☐ Desktop computer ☐ Laptop computer ☐ Tablet / Chromebook ☐ Hot-spot device
☐ Smartphone/mobile phone/cellphone ☐ Modem/Router ☐ No device
☐ Gaming console that connects to the Internet
☐ We don't need or use the Internet. ***(please explain why not)*** _____
_____
☐ Other ***(please specify)*** _____

Use of the Internet Outside of the House

8. Please tell us where you have accessed the internet outside of your home ***(Check all that apply)***?

☐ Work
☐ Friend's or relative's home
☐ Non-profit, religious, or cultural center
☐ At a local business (coffee shop or restaurant)
☐ Community or recreation center or senior center
☐ School/College/University
☐ Hospital or doctor's office
☐ Do not use the internet.
☐ Library
☐ Public or free internet area (government building, park, public plaza)
☐ Other ***(please specify)*** _____

9. Do you currently subscribe to a low-cost Internet service for qualified low-income households (e.g., Xtream Connect from Mediacom, Access from AT&T)?

☐ Yes ☐ No ☐ Don't Know

10. Using the scale of "Very Important, Important, Somewhat Important, or Not at all Important", when it comes to your Internet connection, please rate each of the following in importance to you. ***(Circle#)***

	Very Important	Important	Somewhat Important	Not at all Important	Don't Know
A broadband connection	1	2	3	4	5
Fast speed	1	2	3	4	5
Unlimited or plentiful data	1	2	3	4	5
Reliability	1	2	3	4	5
Security and privacy	1	2	3	4	5
Cost	1	2	3	4	5

11. Do you rely on others to help you with the skills needed to access and navigate the Internet?

☐ Yes ☐ Sometimes
☐ No ***(Go to Q14)*** ☐ Not Really ***(Go to Q14)*** ☐ Don't Know ***(Go to Q14)***

12. Who do you rely on for assistance with using the Internet?

☐ Someone else in my household ☐ Neighbors, friends, relatives
☐ Staff at the Public Library ☐ Teachers at the local school/college
☐ Others ***(please specify)*** _____

13. If Internet and computer training classes were available for free, would you take them?

☐ Yes ☐ No ☐ Don't Know

Demographics

While **your specific responses will remain anonymous**, we would like to be able to consider your opinions with others like you. Please indicate the following in the space provided:

14. Zip Code _____
15. Highest Grade/Degree completed _____
16. Own or Rent your home or Other _____
17. How old were you on your last birthday? _____
18. Male or Female or Other _____
19. Do you have children under 18 in the home? ☐ Yes ☐ No
20. Race/Ethnicity _____
21. Estimated Annual Household Income or Range _____
22. Are you currently employed? ☐ Yes ☐ No
23. How long have you lived in the County? _____ (Years)
24. Are you a Veteran? ☐ Yes ☐ No
25. Do you or a household member live with a disability? ☐ Yes ☐ No
26. What languages are spoken in the home?

☐ English ☐ Spanish ☐ Ukrainian ☐ Russian ☐ Tagalog
☐ Korean ☐ Vietnamese ☐ Chuukese
☐ Other ***(please Specify)***: _____

Other Comments

27. If you have anything else you would like to share with us regarding Internet and Broadband in Lake County, please include it here: _____
_____

Please turn page →

Lake County values your input.

Thank you very much for your time completing this survey!

EXHIBIT H – ENCUESTA PARA LAS PERSONAS SUSCRITAS A INTERNET Y BANDA ANCHA DEL CONDADO DE LAKE

Estimado(a) residente del condado de Lake: El condado de Lake está solicitando información de los residentes sobre la disponibilidad, el acceso y la adquisición de banda ancha e Internet que ayudará al condado a ofrecerle un mejor y más económico servicio de Internet. Por favor tome unos minutos para compartir las opiniones de los miembros de su hogar sobre estos temas. Sus respuestas son anónimas y completamente voluntarias. Usted no será identificado(a) y sus respuestas solo serán declaradas como parte de un grupo. Si tiene alguna pregunta, comuníquese con el condado al 707-263-2360, ext 39104.

☐ Para poder participar en esta encuesta, usted debe vivir dentro del condado de Lake, California y ser mayor de 18 de años de edad.

1. ¿ Además de servicio de teléfono celular, tienes suscripción de servicios de Internet residencial o banda ancha en su hogar? ☐ Sí ***(siga a la P2)***
☐ No ***(complete la encuesta para las personas no suscritas)***
☐ No tengo un teléfono celular ***(complete la encuesta para las personas no suscritas)***

2. ¿Qué tipo de servicios de Internet residencial tiene en su hogar? ***(Marque todas las que correspondan)***

☐ Cable o fibra de banda ancha (Mediacom, AT&T)	☐ Teléfono celular o banda ancha móvil (T-Mobile, Verizon o AT&T)
☐ DSL (a través de la red telefónica alámbrica; línea de cobre AT&T)	☐ Conexión inalámbrica fija (antena inalámbrica al *router* del hogar)
☐ Wifi público o comunitario	☐ Satélite (HughesNet o Starlink)
☐ Punto de acceso móvil	☐ Otro (especifique) _____

Éxito de las actividades de Internet en el hogar

3. ¿Todos los miembros de su hogar puden completar todas las actividades de Internet que necesitan y desean, incluyendo la transmisión de videos y subir archivos?

☐ Sí ***(siga a la P5)*** ☐ No ***(explique lo que no puede hacer)*** _____
_____

Obstáculos para un Internet confiable

4. ¿Cuáles son los principales obstáculos que tienen en su hogar para tener acceso suficiente y confiable de Internet? r? ***(Marque todas las que correspondan)***

☐ Ninguno ☐ Sin disponibilidad ☐ Asequibilidad o costo
☐ La velocidad es muy lenta (acceso insuficiente)
☐ Accesibilidad (por ejemplo, falta de dispositivos necesarios)
☐ Servicio no confiable o cortes seguidos (acceso inconsistente)
☐ Otro, especifique _____

Por favor, pase página →

5. ¿Actualmente, cuánto paga mensualmente por servicios de Internet o banda ancha en su hogar? $_____

6. ¿Cuál considera que es un costo razonable para pagar por servicios de Internet residencial cada mes? $_____

Dispositivos para acceder a Internet

7. ¿Cuáles de los siguientes dispositivos tienen en su hogar para realizar actividades utilizando Internet? (por ejemplo, trabajo comercial, tareas, transmisión de video, etc.)? ***(Marque todas las que correspondan)***

☐ Computadora de escritorio ☐ Computadora portátil
☐ Tableta o Chromebook ☐ Dispositivo de punto de acceso
☐ Teléfono inteligente, teléfono móvil o teléfono celular ☐ Módem o *router*
☐ Ningún dispositivo ☐ Consola de videojuegos que se conecta a Internet
☐ No necesitamos ni usamos Internet ***(explique por qué no)*** _____
_____
☐ Otro ***(especifique)*** _____

Uso del Internet fuera de la casa

8. Por favor, indique dónde tiene acceso a internet fuera de su hogar. ***(Marque todas las que correspondan)***

☐ Trabajo ☐ Escuela, facultad o universidad
☐ Casa de un amigo o familiar ☐ Hospital o consultorio
☐ Centro sin fines de lucro, religioso o cultural ☐ No uso Internet.
☐ En un negocio local (cafetería o restaurante) ☐ Biblioteca
☐ Centro comunitario o de recreación o centro para ancianos
☐ Área de Internet pública o gratis (edificio gubernamental, parque o plaza pública)
☐ Otro ***(especifique)*** _____

9. ¿Está suscrito actualmente a un servicio de Internet de bajo costo para hogares de bajos ingresos (por ejemplo, Xtream Connect de Mediacom, Access de AT&T)?

☐ Sí ☐ No ☐ No lo sé

10. Utilizando la escala de "Muy importante, Importante, Algo importante o Nada importante", en lo que se refiere a su conexión de Internet, califique cada uno de los siguientes aspectos en importancia para usted. ***(Marque el número con un círculo)***

	Muy importante	Importante	Algo importante	Nada importante	No lo sé
Una conexión de banda ancha	1	2	3	4	5
Alta velocidad	1	2	3	4	5
Datos ilimitados o suficientes	1	2	3	4	5
Confianza	1	2	3	4	5
Seguridad y privacidad	1	2	3	4	5
Costo	1	2	3	4	5

11. ¿Recurre a otras personas para que le ayuden con las habilidades necesarias para acceder y navegar por Internet?

☐ Sí ☐ A veces ☐ No ***(siga a la P14)***
☐ No realmente ***(siga a la P14)*** ☐ No lo sé ***(siga a la P14)***

12. ¿A quién recurre cuando necesita ayuda para usar el Internet?

☐ Alguien más en mi hogar ☐ Vecinos, amigos o familiares
☐ Personal en la biblioteca pública ☐ Maestros en la escuela o facultad local
☐ Otros, ***(especifique)*** _____

13. Si se ofrecieran clases gratuitas de capacitación en Internet y computación ¿asistiría? ☐ Sí ☐ No ☐ No lo sé

Datos demográficos

Aunque tus respuestas serán anónimas, nos gustaría poder tener en cuenta sus opiniones junto con las de otras personas como usted. Por favor, indique lo siguiente en el espacio proporcionado:

14. Código postal: _____
15. Grado o título más alto completado: _____
16. Alquila o es propietario de su casa u otro: _____
17. ¿Qué edad tenía en su último cumpleaños? _____
18. Masculino o femenino u otro: _____
19. ¿Tiene hijos menores de 18 años de edad en el hogar? ☐ Sí ☐ No
20. Raza o etnidad: _____
21. Estimado rango de ingresos anuales del hogar: _____
22. ¿Está trabajando actualmente? ☐ Sí ☐ No
23. ¿Cuánto tiempo lleva viviendo en el condado? _____ (años)
24. ¿Es usted un veterano de guerra? ☐ Sí ☐ No
25. ¿Usted o un miembro del hogar vive con alguna discapacidad? ☐ Sí ☐ No
26. ¿Qué idiomas se hablan en su hogar?

☐ Inglés ☐ Español ☐ Ucraniano ☐ Ruso ☐ Tagalo
☐ Coreano ☐ Vietnamita ☐ Chuukés
☐ Otro ***(especifique)***: _____

Otros comentarios

27. Hay algo más que quisiera compartir con nosotros respecto al Internet y banda ancha en el condado de Lake: _____
_____
_____

Por favor, pase página →

El condado de Lake valora sus aportes.

¡Muchas gracias por tomarse el tiempo de completar esta encuesta!