



Getting Connected in the Capital Region

Roundtable on Accelerating Broadband Infrastructure Investments

*Thursday, October 1, 2020
10 AM to 12 NN via Zoom*



Welcome Remarks

Trish Kelly, Managing Director of Valley Vision

*Sunne McPeak, President and CEO of
the California Emerging Technology Fund*

- Mission of Connected Capital Area Broadband Consortium
- Partnerships with CETF and SACOG on infrastructure planning and deployment, including best practices for local governments and Strategic BB Corridors
- BB Infrastructure, access and adoption a high priority for the Capital Region Prosperity Strategy – critical for economic recovery
- Local Government Resource Guide – Best Practices to accelerate investments
- Metro Chamber scan of current local policies



New Opportunities

Trish Kelly, Managing Director of Valley Vision

*Sunne McPeak, President and CEO of
the California Emerging Technology Fund*

- Governor's Executive Order N-73-20 August 14th - directs preparation of State BB Action Plan by end of December 2020, input through California Broadband Council; state agencies to identify mission-aligned funding sources
- Legislation to ensure infrastructure funding especially for high priority areas
- Strategic BB Corridors – joint use/dig once transportation projects/Caltrans
- California Economic Summit/CA Forward – catalyzing innovation
- Capital Region Broadband Plan



The need for broadband infrastructure in the Capital Region: Estimating the cost of filling the gap

David Espinoza, Project Lead for Innovation and Infrastructure at Valley Vision

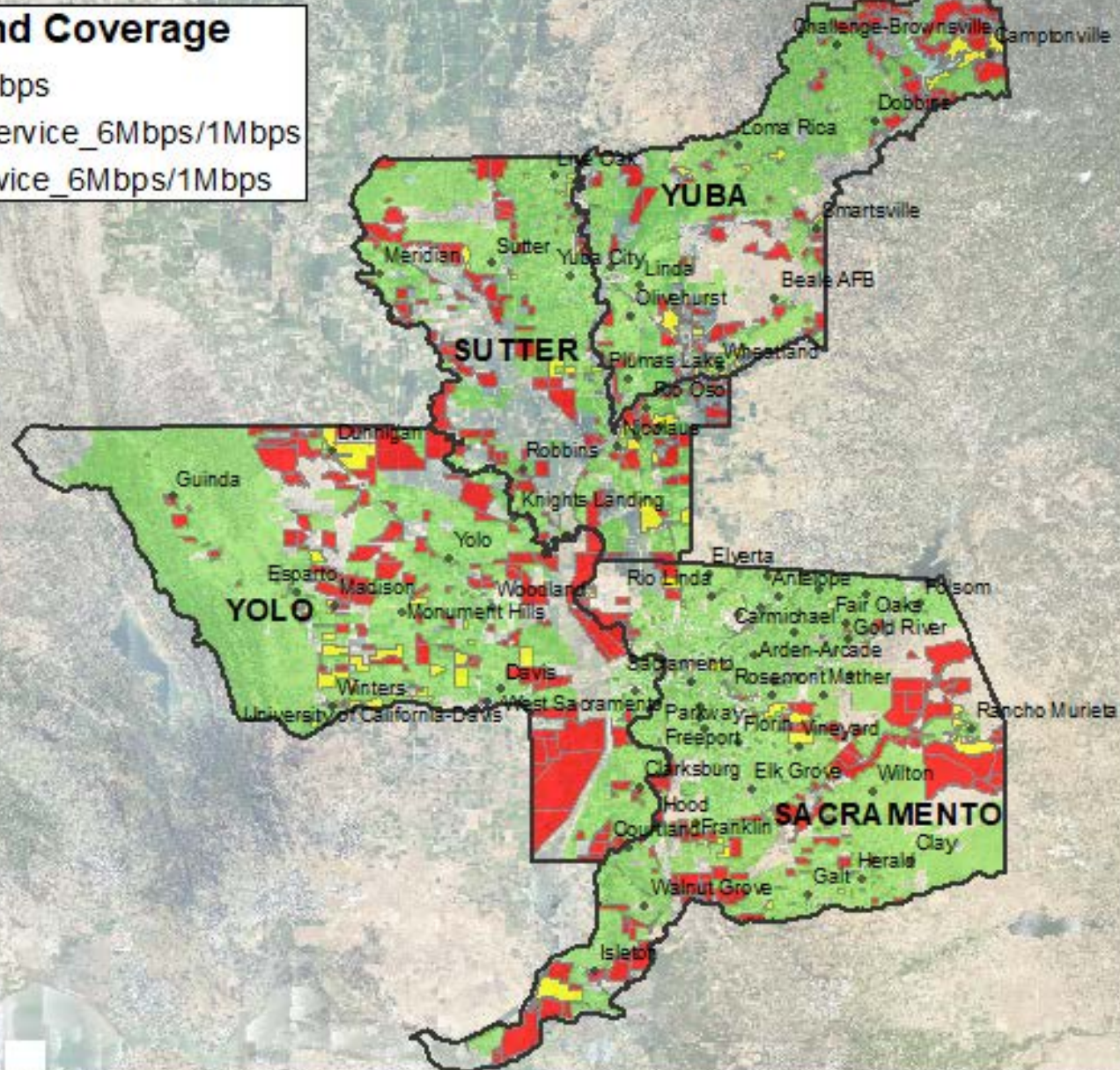


Broadband Access and Adoption in the Connected Capital Area Broadband Consortium Region

County	All Households (CA DOF 2019)	Broadband Access				Broadband Adoption			
		Served Households (Speeds at least 6Mbps/1Mbps)		Unserved Households (Speeds less than 6Mbps/1Mbps)		Consumer Connections (At least 6Mbps/1Mbps)		Consumer w/o Connections (At least 6Mbps/1Mbps)	
		Number	%	Number	%	Number	%	Number	%
Connected Capital Area Broadband Consortium	658,329	641,172	97.4%	17,157	2.6%	551,796	86.1%	89,376	13.9%
Sacramento	526,804	514,874	97.7%	11,930	2.3%	452,670	87.9%	62,204	12.1%
Sutter	32,154	31,161	96.9%	993	3.1%	24,120	77.4%	7,041	22.6%
Yolo	73,648	70,859	96.2%	2,789	3.8%	57,545	81.2%	13,314	18.8%
Yuba	25,723	24,278	94.4%	1,445	5.7%	17,461	71.9%	6,817	28.1%

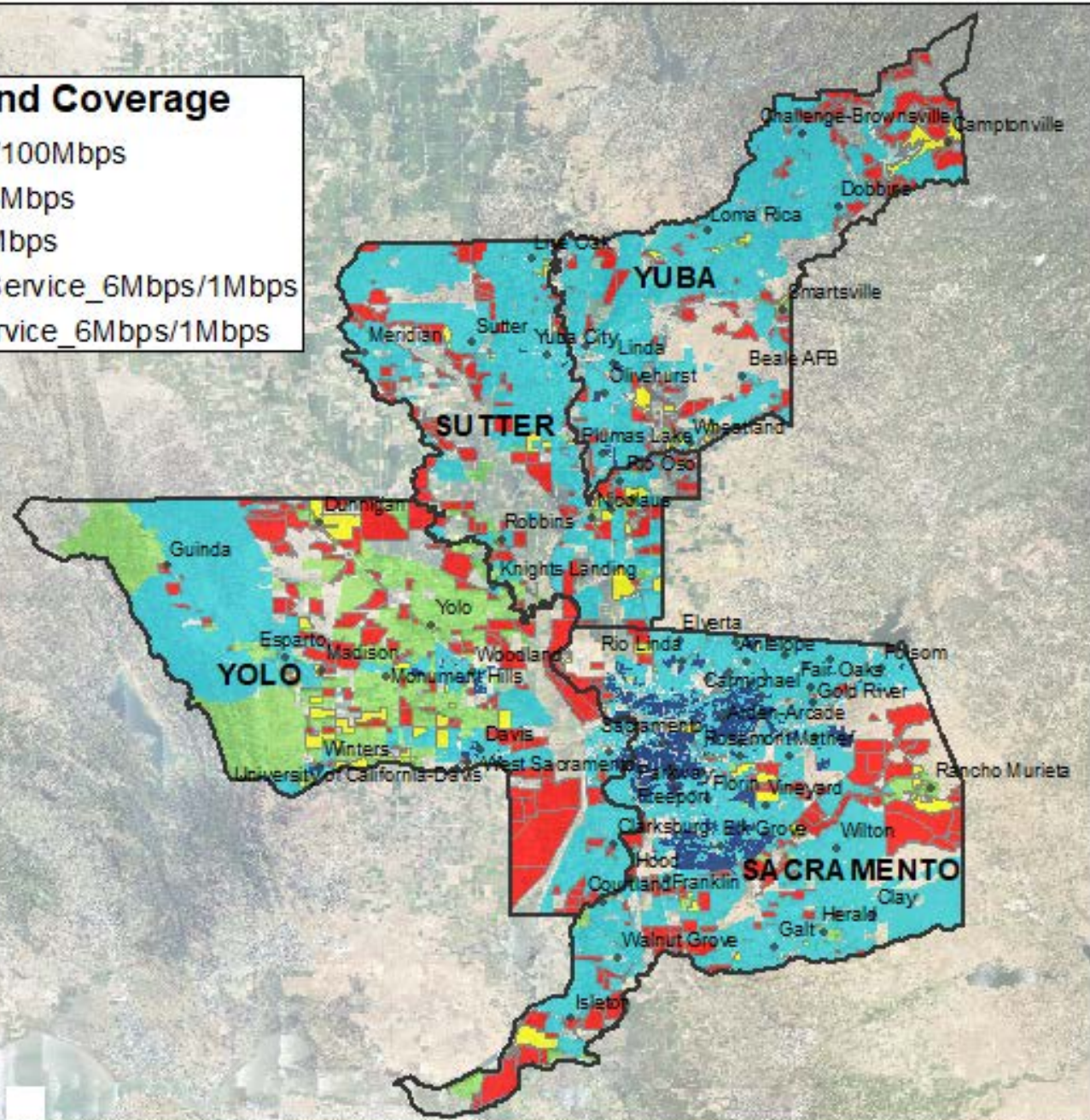
CCABC Broadband Coverage

- Served_6Mbps/1Mbps
- Unserved_Slow_Service_6Mbps/1Mbps
- Unserved_No_Service_6Mbps/1Mbps



CCABC Broadband Coverage

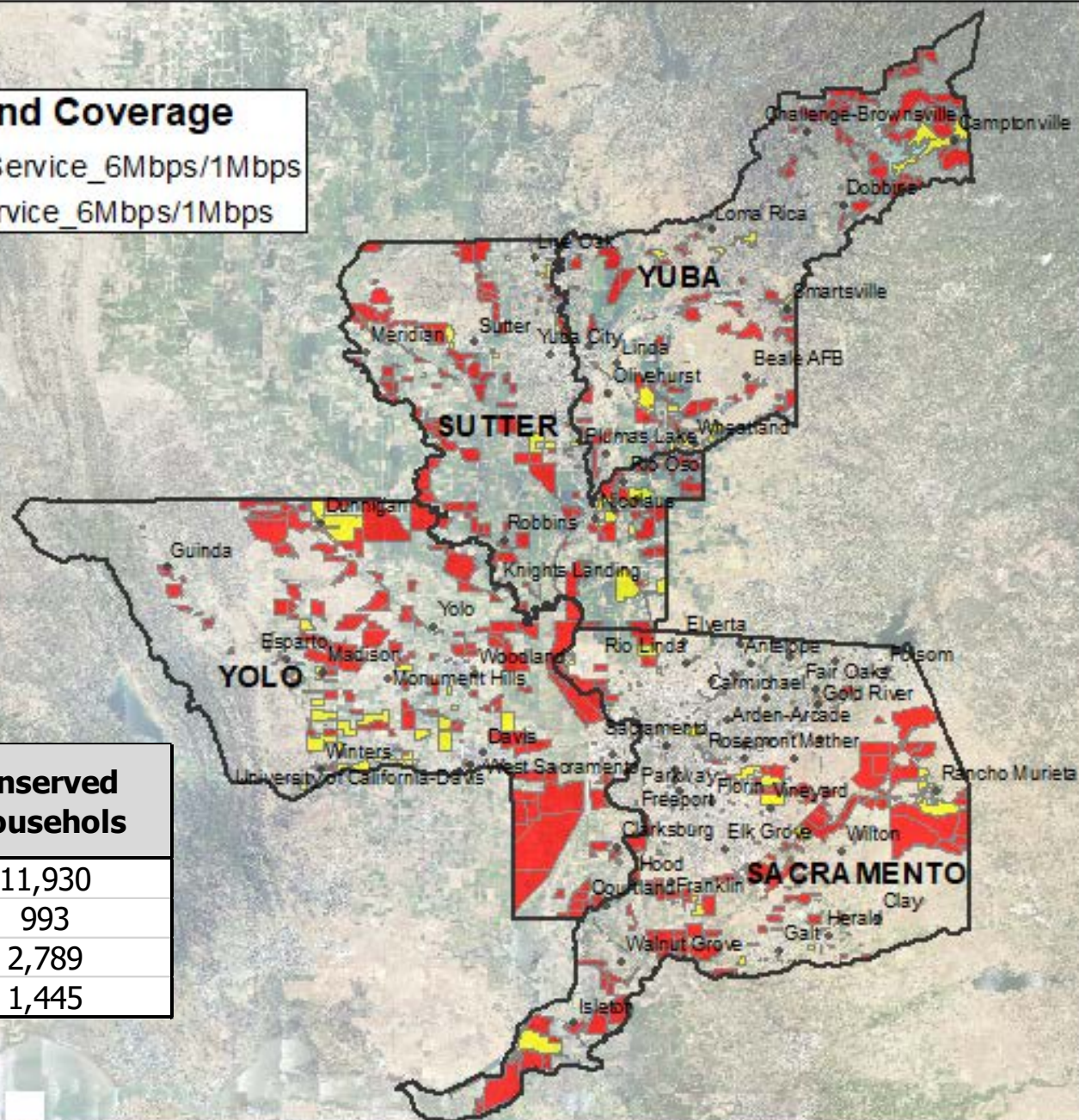
- Served_100Mbps/100Mbps
- Served_25Mbps/3Mbps
- Served_6Mbps/1Mbps
- Unserved_Slow_Service_6Mbps/1Mbps
- Unserved_No_Service_6Mbps/1Mbps

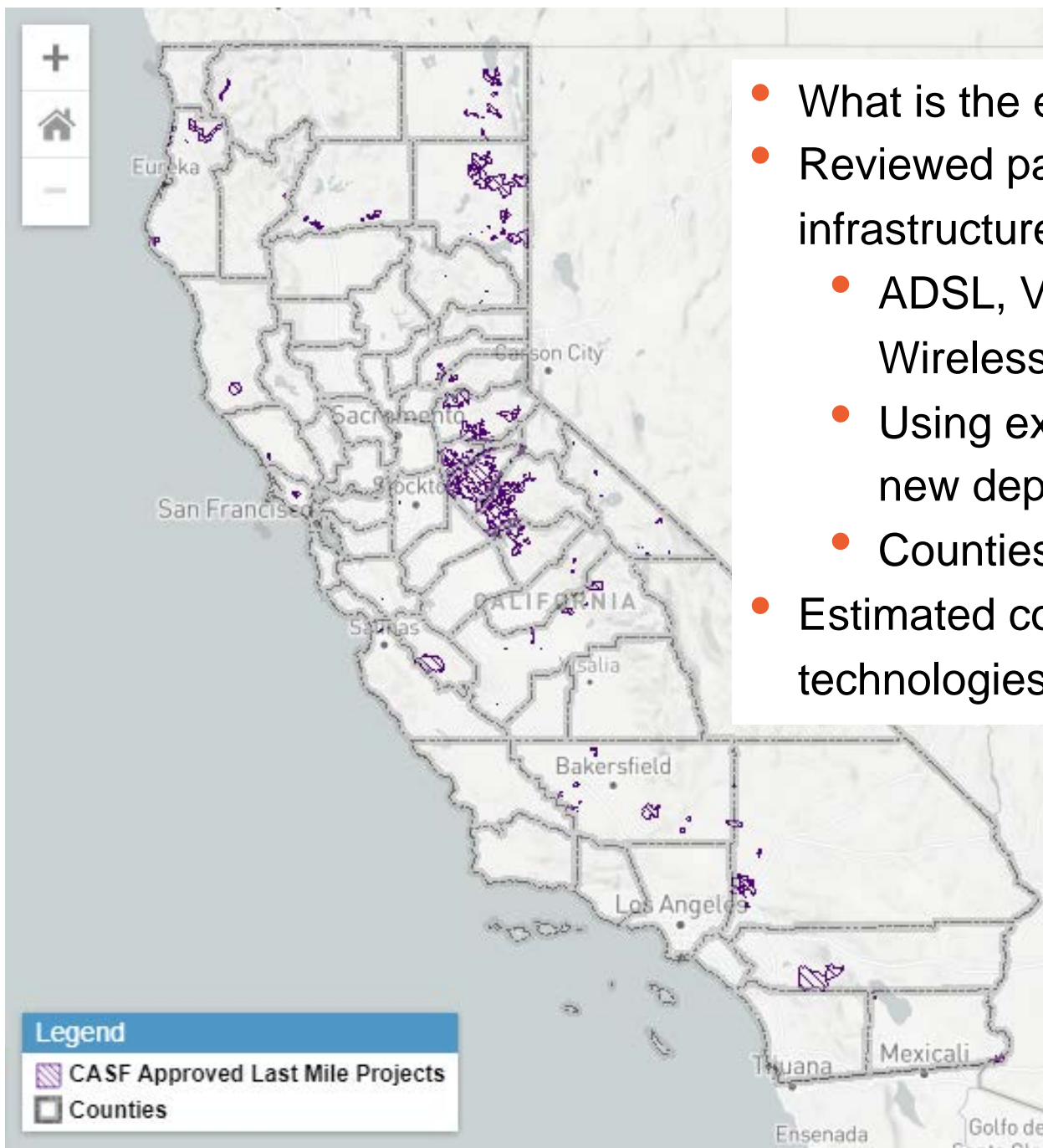


CCABC Broadband Coverage

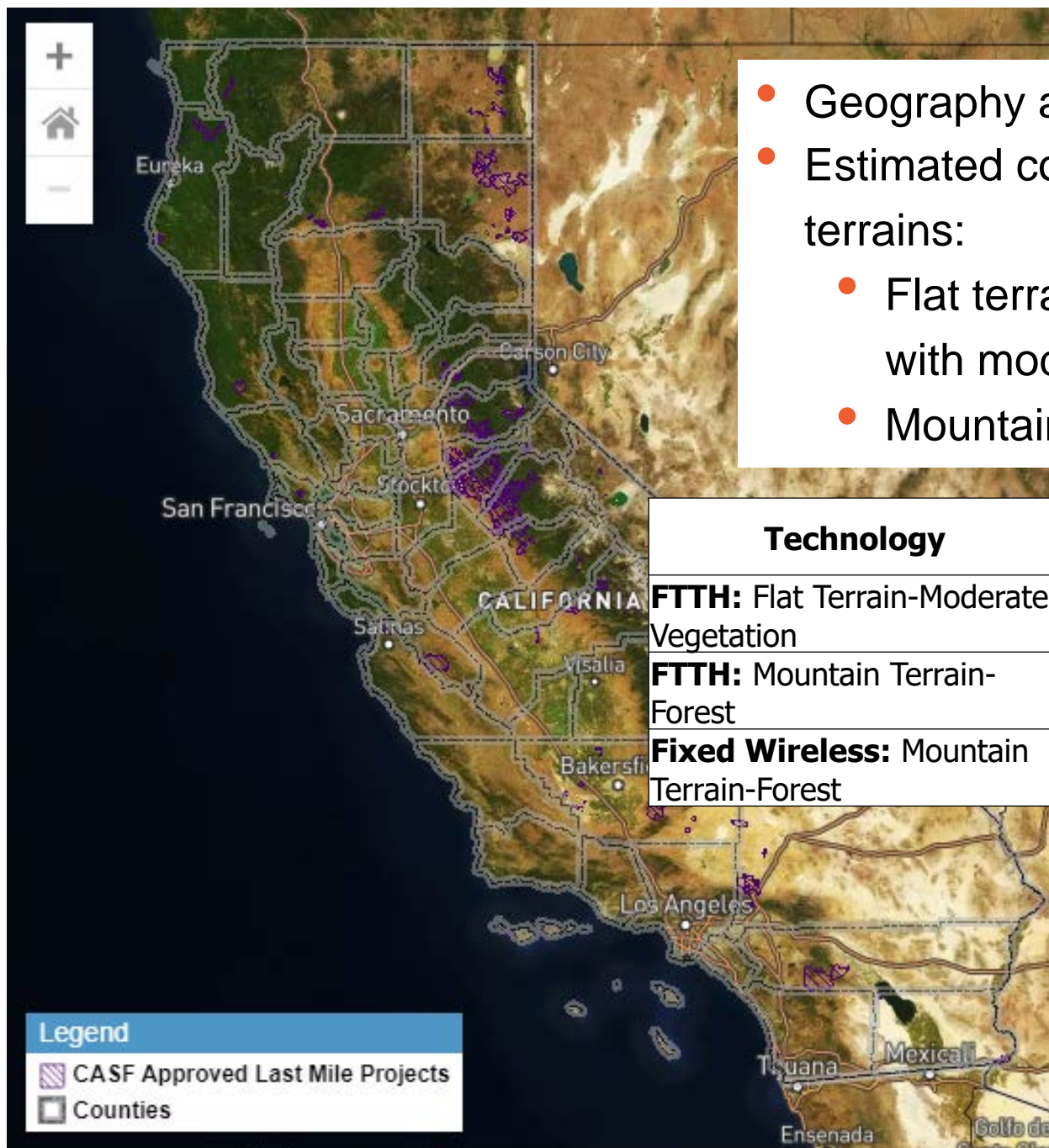
- Unserved_Slow_Service_6Mbps/1Mbps
- Unserved_No_Service_6Mbps/1Mbps

County	Unserved Households
Sacramento	11,930
Sutter	993
Yolo	2,789
Yuba	1,445





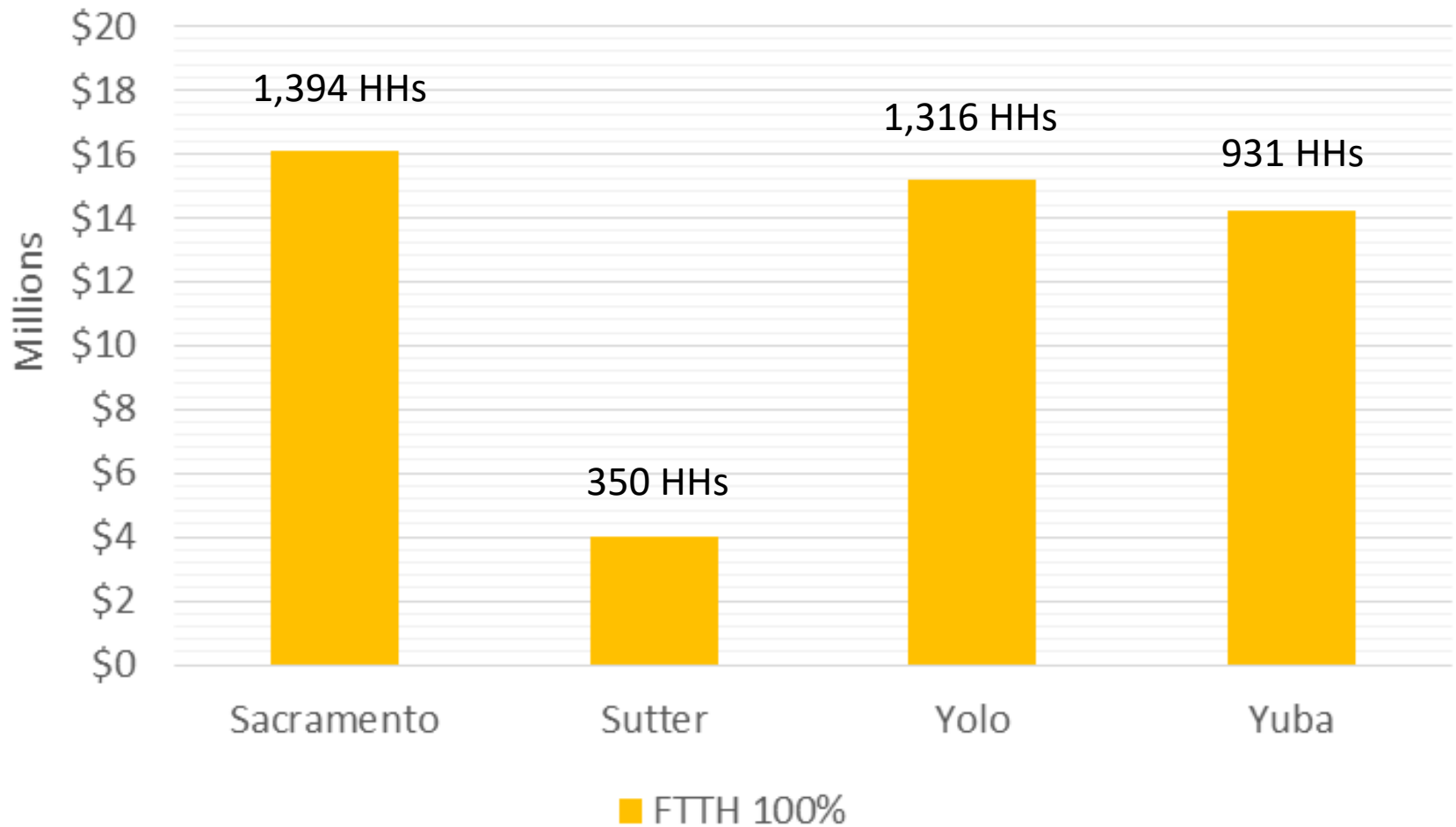
- What is the estimated cost per HH?
- Reviewed past funded CASF infrastructure projects:
 - ADSL, VDSL, FTTH, Fixed Wireless
 - Using existing infrastructure and new deployments
 - Counties across California
- Estimated cost per HH for different technologies



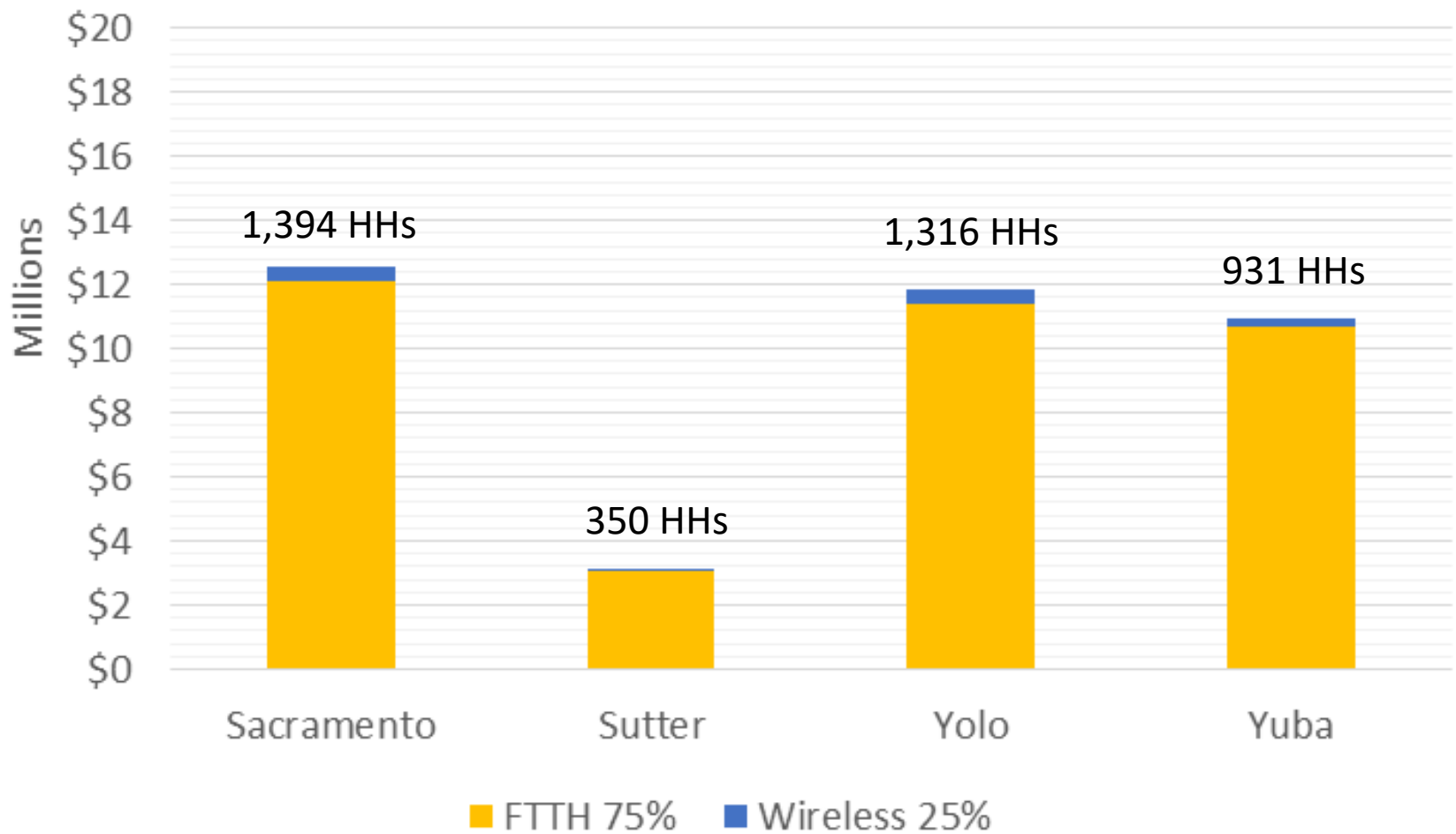
- Geography and terrain is important
- Estimated cost per HH for different terrains:
 - Flat terrain (coastal or valley) with moderate vegetation
 - Mountain terrain with forest

Technology	Min. \$/HH	Max. \$/HH	Avg. \$/HH
FTTH: Flat Terrain-Moderate Vegetation	\$8,040	\$16,813	\$11,550
FTTH: Mountain Terrain-Forest	\$11,505	\$43,591	\$23,967
Fixed Wireless: Mountain Terrain-Forest	\$960	\$1,645	\$1,303

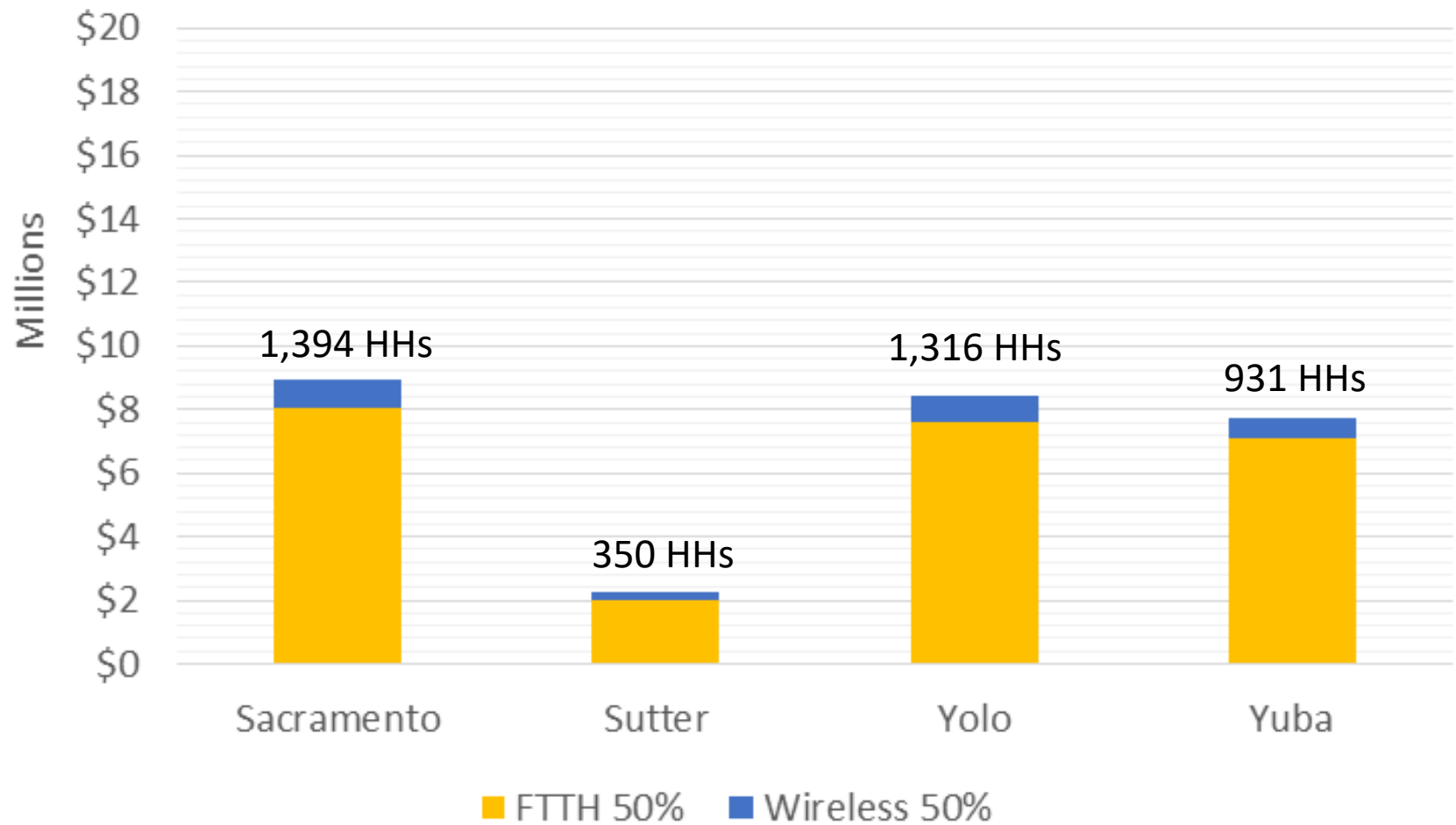
Estimated Total Cost to Serve 98% HHs: \$49.5M



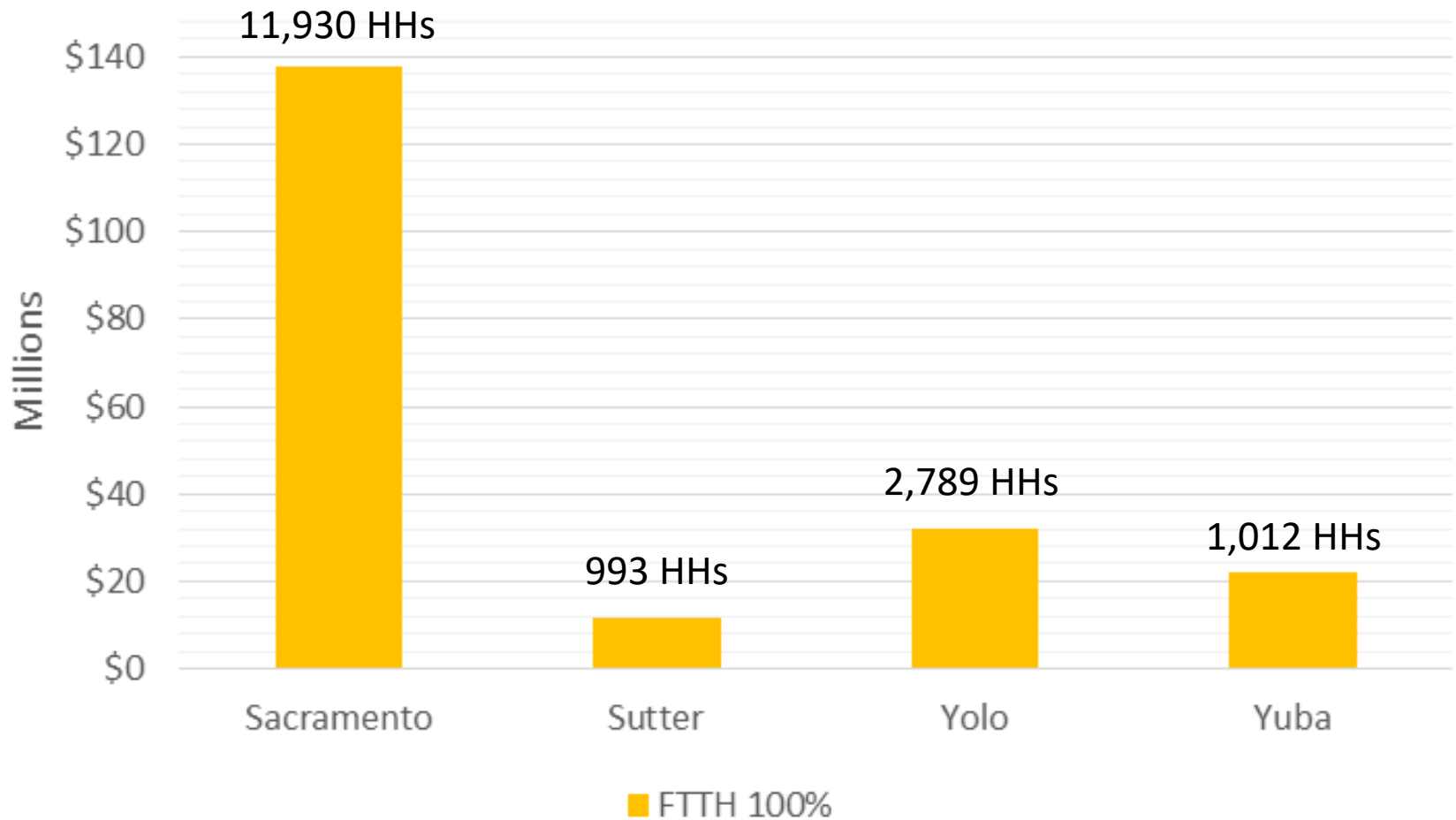
Estimated Total Cost to Serve 98% HHs: \$38.4M



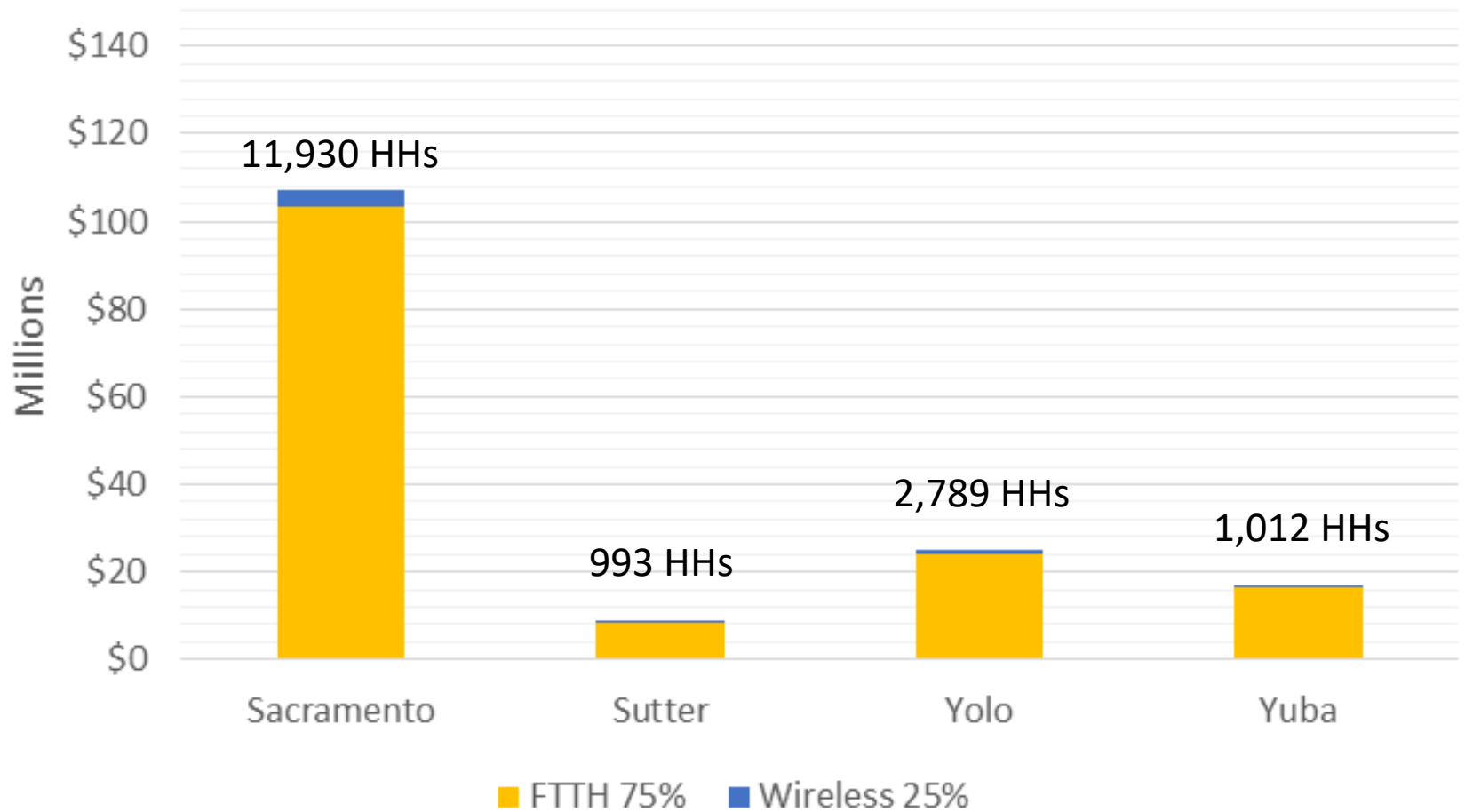
Estimated Total Cost to Serve 98% HHs: \$27.3M



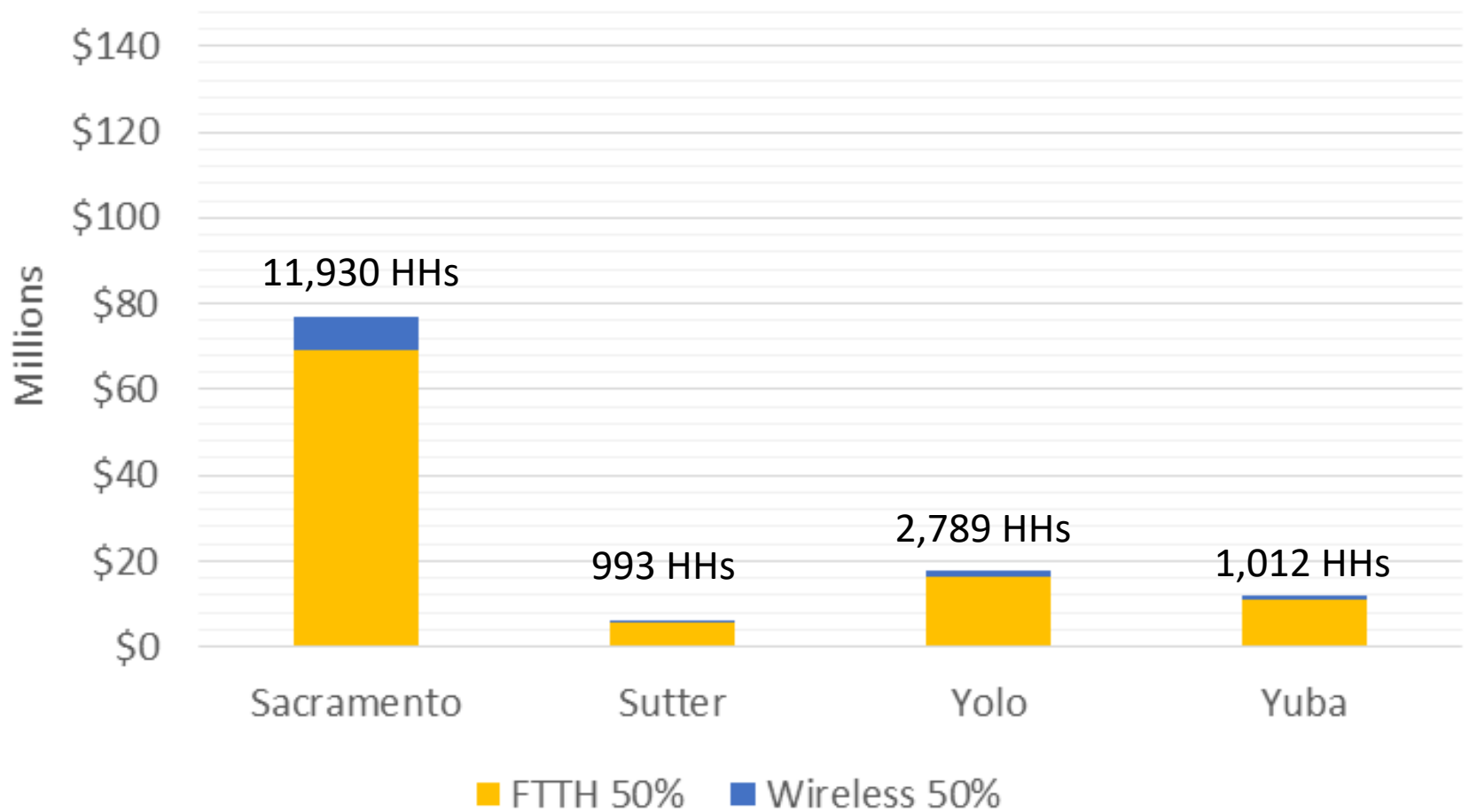
Estimated Total Cost to Serve 100% HHs: \$203.5M



Estimated Total Cost to Serve 100% HHs: \$158.2M



Estimated Total Cost to Serve 100% HHs: \$112.9M



Overview of “Getting Connected: A Resource Guide for Local and Regional Government Leaders”

Isa Avanceña, Project Associate at Valley Vision



The Roles of Local and Regional Government

Local and regional government officials can have substantial impact on the deployment and adoption of broadband through their many leadership roles. These **roles are embedded in the elected governing city councils and boards of supervisors**, whether or not the jurisdictions appoint specific staff to function in these roles.

Role	Definition
Policy Leader	Promulgate policies that determine the jurisdiction's attention and attitude toward broadband technology; define the approach to facilitating capital investment.
Planner	Prepare land use and other related plans that guide the development in their jurisdiction, determining "smart" growth and defining quality of life for residents.
Regulator	Adopt implementing ordinances for policies and plans that promote "smart" infrastructure and facilities.
Consumer	Purchase and utilize technology that enables residents to access information and services, encouraging innovation and competition.
Service Provider	Provide information and services online that increases the relevance of the technology to consumers, encouraging adoption.

How to use this Resource Guide

This Resource Guide is **for local and regional government leaders who are looking to advance deployment and adoption of broadband through their many leadership roles. It includes:**

- An overview of select broadband plans and ordinances across the state;
- Case studies for broadband deployment and adoption, including 5G; and
- A list of additional resources from national and state broadband agencies and organizations.

The broadband landscape is constantly evolving with new innovations in technology and policy. To keep abreast of these developments, **local and regional government leaders are encouraged to look at the additional resources** provided, as well as contact their respective regional broadband consortia for further guidance and support.



Methodology: How this Resource Guide was put together

Data gathering from several national and statewide organizations that do research, disseminate information, and convene experts and stakeholders around broadband (e.g., Next Century Cities, the National Telecommunications and Information Administration, the League of California Cities, etc.).

1. **Outreach to consultants** who specialize in assisting jurisdictions with advancing broadband infrastructure, deployment, and adoption .
2. **Outreach to California's regional broadband consortia** who work with their jurisdictions on identifying and implementing broadband-friendly policies and practices.
3. **Outreach to jurisdictions** (counties and cities) working to close the Digital Divide in their communities.



Broadband Masterplans

Broadband masterplans are comprehensive plans that outline a jurisdiction's priorities and policies.

Often includes:

1. An in-depth assessment of the community's broadband capability and accessibility;
2. An asset inventory;
3. Regulations with respect to leasing and permitting; among others; and.
4. Funding strategies.

Broadband masterplans can be incorporated into a jurisdiction's General Plan or exist as a separate document.



County or City	Broadband Masterplan	Summary
Humboldt County Population: 135, 768 Households: 54, 267	Chapter 6, General Plan	Deals with <i>all</i> telecommunications; lists the benefits of broadband to the community; provides an overview of broadband availability in the county; Identifies broadband goals and policies, priorities, standards, and implementation measures. Key elements: <ul style="list-style-type: none"> Encourages service providers to size underground and overhead facilities to accommodate future expansion; Provides for utilizing permit processes that vary depending upon the physical characteristics of the facility, etc.; and Provides for seeking grant funding for outlying rural areas and other underserved communities.
Lake County Population: 64, 148 Households: 25, 966	Master Broadband Plan for Lake County	Comprehensive assessment of the broadband landscape in the County of Lake, including both wireline and fixed wireless services + recommendations. Notable recommendations: <ul style="list-style-type: none"> Recommendations for policies to promote broadband deployments include making available municipal online services, enacting dig once ordinances and conduit standard specifications, generating an inventory of publicly owned assets and a master lease agreement, among others.
Santa Cruz County Population: 273, 765 Households: 95, 756	Fiber-Optic Network Master Plan and Broadband Development Policy	Lays the groundwork for a City-wide fiber-optic network that will increase connections, reliability, and redundancy. Notable policies: <ul style="list-style-type: none"> Dig Once Fiber and Colocation Leasing Public Agency Cooperation and Partnerships Operations and Maintenance GIS Logging

Dig Once, “Dig Smart” Policies

- Encourages the placement of fiber or conduit in the ground any time the road is dug up for a public works project;
- A commonsense method of reducing the cost of communications infrastructure deployment
- Breaks down barriers of entry for new market entrants, creating a competitive marketplace that ultimately can result in more options, lower prices, and higher quality of service for consumers;
- Can also greatly reduce strain on a community by minimizing traffic, noise, and safety concerns of constant construction work.



County or City	Ordinance or Best Practice	Summary
Glenn County Population: 27, 897 Households: 10, 017	Telecommunications Infrastructure Improvement Ordinance	Requires that utility and telecommunications companies leading construction projects involving excavation of County rights-of-way coordinate with other utility and telecommunications companies installing broadband infrastructure (i.e., conduit) in the right of way.
City of South San Francisco Population: 323, 016 Households: 21, 083	Dig Once Ordinance and Open Trench Notification and Policy and Procedure	The Ordinance standardizes City procedure to coordinate the installation of third-party telecommunications facilities when certain projects meet the triggers that are described in the Ordinance.

Municipal FTTP (“Fiber to the Premises”)

- Used to specify telecommunications that use fiber to connect the subscriber.
- May be more expensive to install but offers significant savings in terms of maintenance when compared to copper alternatives.

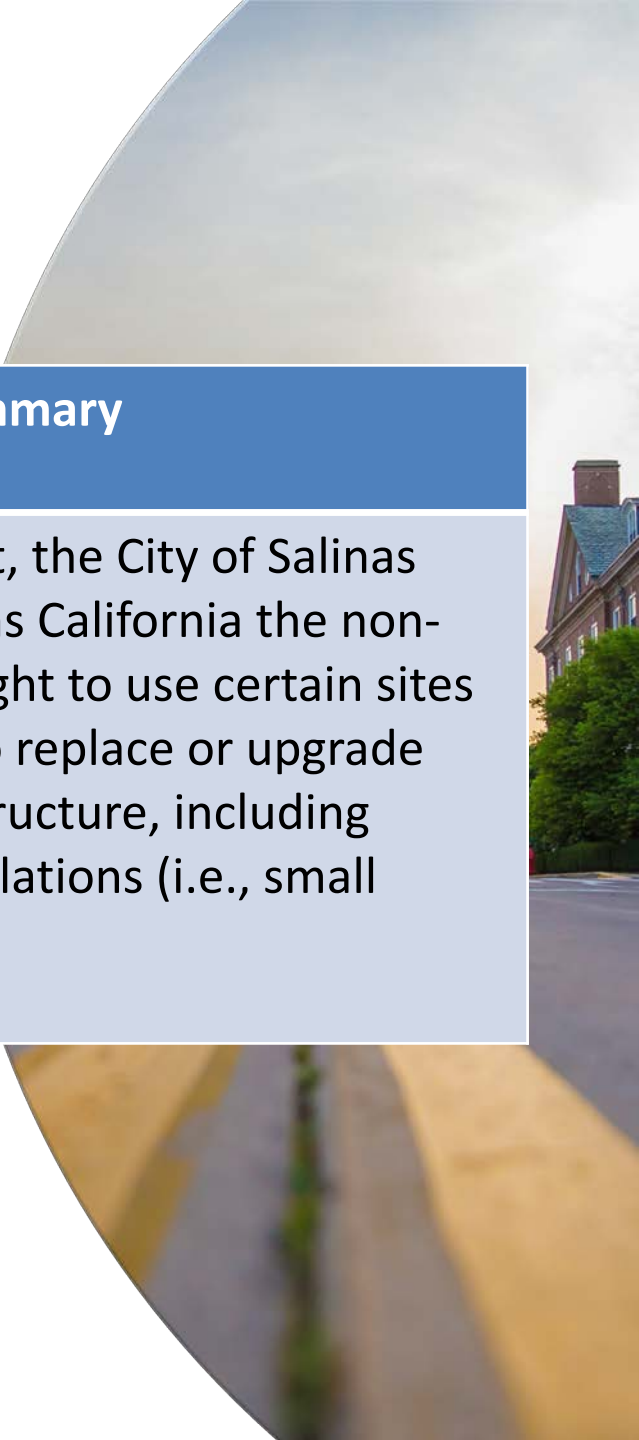


County or City	Ordinance or Best Practice	Summary
City of Santa Cruz Population: 162, 204 Households: 22, 363	Santa Cruz Fiber Public-Private Partnership Approval	<ul style="list-style-type: none">• The public-private partnership with Cruzio Internet was entered into in line with the City Council's approval of a broadband master plan focused on developing an FTTP network.• The partnership provides for the analysis and negotiation of a model to develop a municipally owned, but privately-operated fiber optic network to provide affordable, world-class gigabit-speed, ubiquitous internet service to City of Santa Cruz residents and businesses.

Master License Agreement

- Made between the Licensors (i.e., the jurisdiction, such as a county or city) and Licensee (i.e., the internet service or infrastructure provider).
- Allows the Licensee to use and make attachments to certain structures, according to the terms set forth in the Agreement.
- The Licensors commit to accommodating the Licensee's use and attachment to the structures.





County or City	Agreement	Summary
City of Salinas Population: 156, 550 Households: 40, 623	License Agreement for Wireless Installations on Public Structures	Under this Agreement, the City of Salinas grants Extenet Systems California the non-exclusive revocable right to use certain sites throughout the city to replace or upgrade structures and infrastructure, including making wireless installations (i.e., small wireless facilities).

Case Study for 5g: San José

Overview

- City currently partners with telecommunication companies (AT&T, Mobilitie, and Verizon) that maintain antennas (“small cells”) across the City.
- Many of these small cells are installed on City property, such as streetlights, traffic lights, and rooftops.
- Small cells offer enhanced voice and data capacity citywide, improve emergency communication capability, and pave the way for the equitable deployment of 5G broadband technology

Key elements

- San José has chosen to dedicate the usage fees generated from leasing streetlights to target digital inclusion.
- San José has detailed and comprehensive permit and design guidelines.
 - Asset availability;
 - Asset location approval; and
 - Design and construction requirements, among others.



How to Advance Investment in Broadband Infrastructure in the Capital Region:

Internet Service Provider Roundtable

- ***Rochelle Swanson***, Northern California Government Affairs Manager for Crown Castle
- ***Andrew Cardin***, SVP of Operations at Digital Path
- ***Phillip Deneef***, Chief Strategy Officer at GeoLinks
- ***Trace Tedde-Vega***, Manager of Development for Sacramento/Northern/Central Valley at Zayo
- ***Rodrigo de la Rosa***, Senior Manager at T-Mobile



How to Advance Investment in Broadband Infrastructure in the Capital Region:

Local Elected Officials Roundtable

- ***Mayor Pro Tempore Tom Stallard, City of Woodland***
- ***Supervisor Don Nottoli, Sacramento County Board of Supervisors***
- ***Supervisor Gary Bradford, Yuba County Board of Supervisors***



Next Steps

- Finalize Resource Guide: obtain any additional input, review with CETF, final report November 2020, broad dissemination
- Collaborate with CA Broadband Council for State Broadband Action Plan
- Present to SACOG Board and other leadership organizations
- Prepare Capital Region BB Plan
- Collaborate on Strategic BB Corridors plan with Caltrans, statewide network
- Support California Economic Summit/CA Forward – Broadband for All
- Advance state legislation and federal broadband policy action

