

# Middle Mile Locations Outreach Briefing

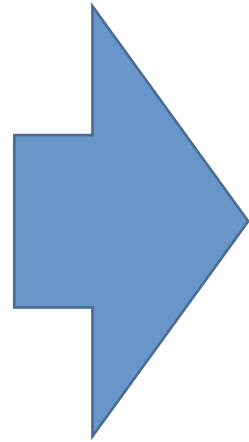
California Public Utilities Commission

August 20, 2021



California Public  
Utilities Commission

# California's Broadband Gap



- California has more unserved households than any other state in the nation.
- 52.4% of Californians actively use broadband at the modern benchmark speed of 100 Mbps.
- 51.3% of rural households lack any broadband service at 100 Mbps.
- 28.4% of households on Tribal Lands lack any broadband service at 100 Mbps.
- Almost half of households without access at 100 Mbps are in urban areas.

## The Solution



**Infrastructure, Access, and  
Affordability**

# Governor Newsom Signs Historic Broadband Legislation to Help Bridge the Digital Divide



## **Middle Mile \$3.25 billion**

- Build, operate and maintain an open access, state-owned middle mile network.

## **Last Mile \$2 billion**

- Set up last-mile broadband connections that will connect homes and businesses with local networks.

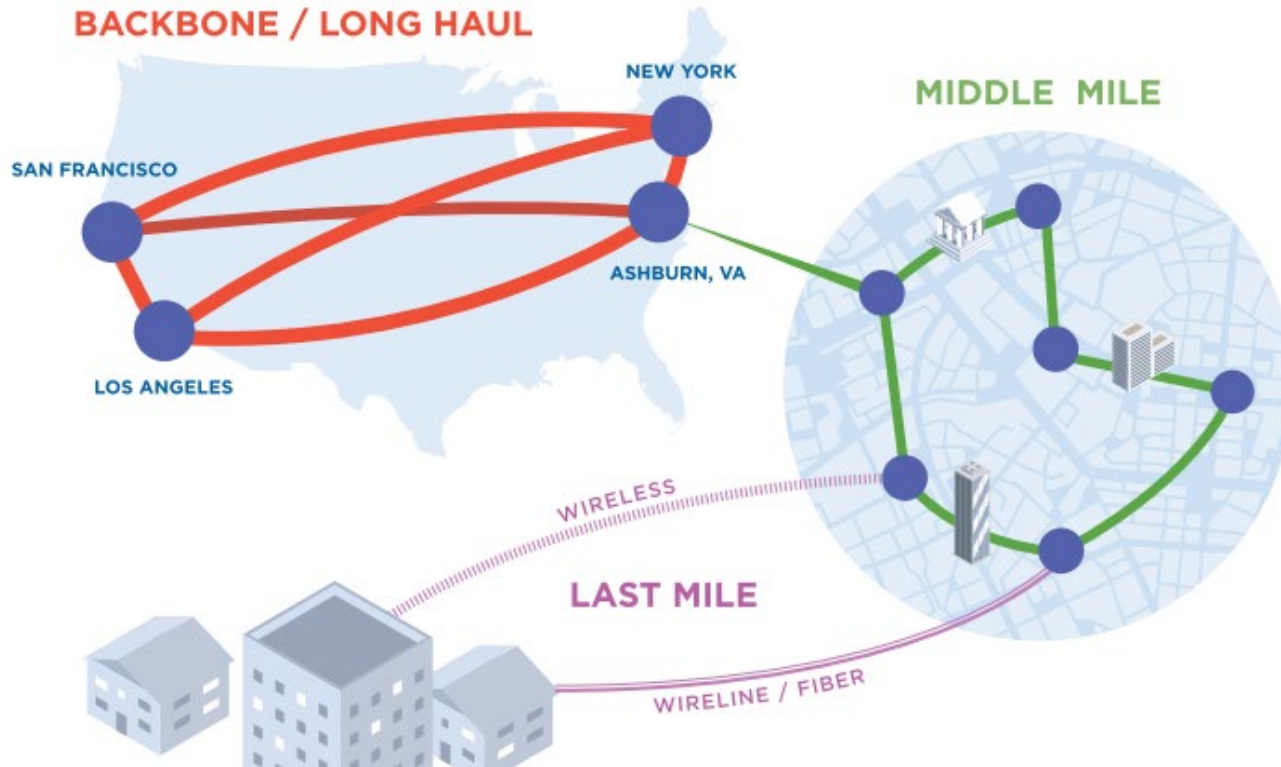
## **Loan Loss Reserve \$750 million**

- Loan loss reserve fund to enable local governments and nonprofits to secure financing for broadband infrastructure.

## **Local Agency Technical Assistance \$50 million**

- Technical assistance to local governments to prepare for broadband implementation.

# Statewide Middle Mile – \$3.75 Billion



“Middle-Mile” refers to the high-capacity fiber-optic cables that traverse long distances (i.e., 10s-100s of miles) to connect communities to the Internet backbone.

# Lack of Middle Mile is a Barrier to Deployment and Affordability

**Expensive to build** for smaller broadband service providers.

Very **expensive to lease** from existing broadband service providers.

Often **unavailable**, or if available, does not provide sufficient capacity to meet modern broadband network speeds or capacity.

**Proprietary** networks serve the most densely populated pockets and do not offer middle-mile access to competitors

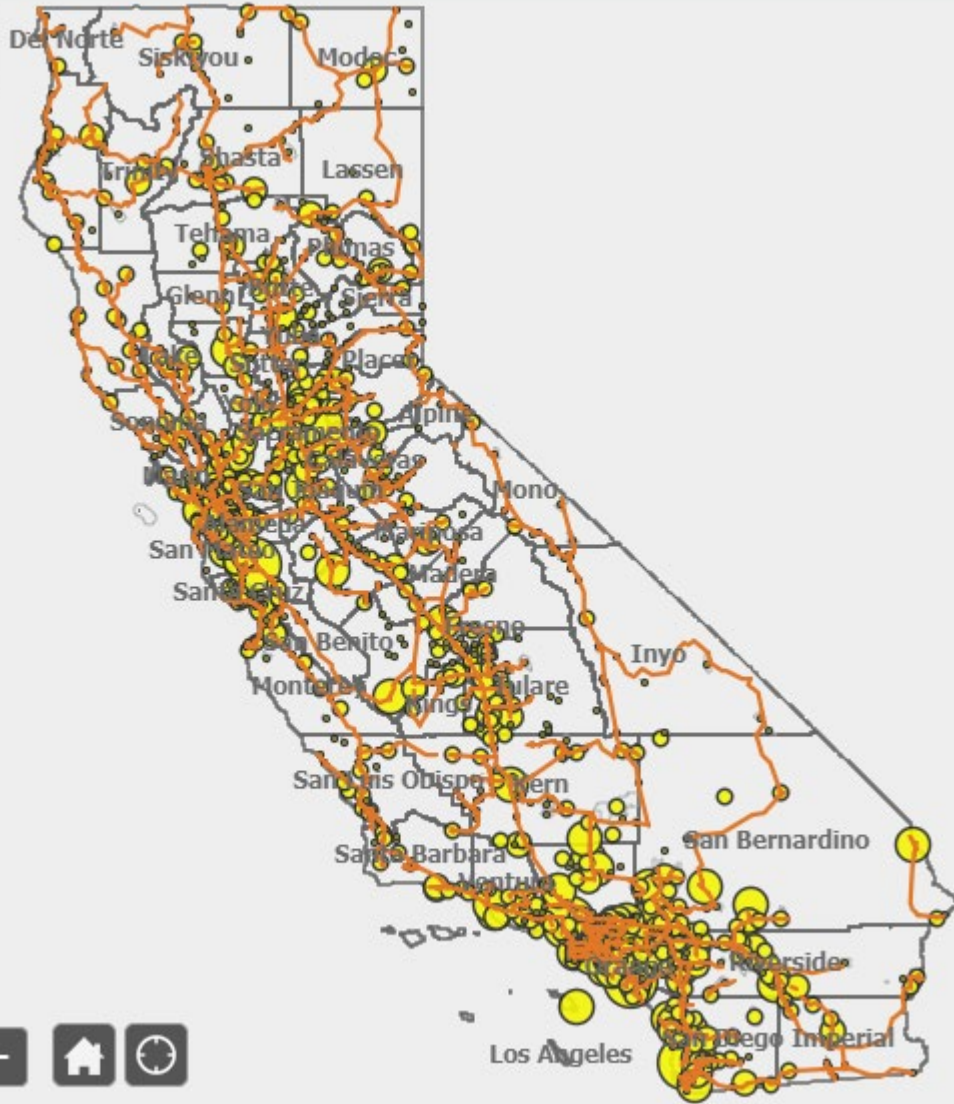


# Middle Mile is a Foundational Investment for California

It will provide the foundation to connect the unserved, improve quality of service for the underserved, improve statewide network resiliency, and bring down costs for the communities by increasing broadband options:

- **Promotes Affordability:** Open-access middle-mile provides more affordable service and reduces the price of broadband Internet service by encouraging construction of competitive last-mile networks.
- **Enables Last Mile Infrastructure:** Will fundamentally change the economics of deploying broadband networks across the state in unserved and underserved areas. Will reduce upfront infrastructure costs, create new opportunities for municipal fiber networks, and promote affordability for consumers.
- **Economic Development:** Will create tens of thousands of good jobs to help the state's economy recover from the COVID-19 Pandemic. Will enable teleworking, telelearning, and telehealth.





## Statewide Middle Mile Network Initial Staff Proposal

- 8,000 road miles
- All within state highways / rights of way
- Each route connects to “last mile:”
  - Each yellow “dot” is an unserved community (specifically, a “Census Designated Place”)
  - The dot size increases based on the number of unserved households.
  - This map uses 100 Mbps as the unserved definition. An updated 25/3 Mbps map is forthcoming to comply with statutory requirements.
- Link to map [here](#)

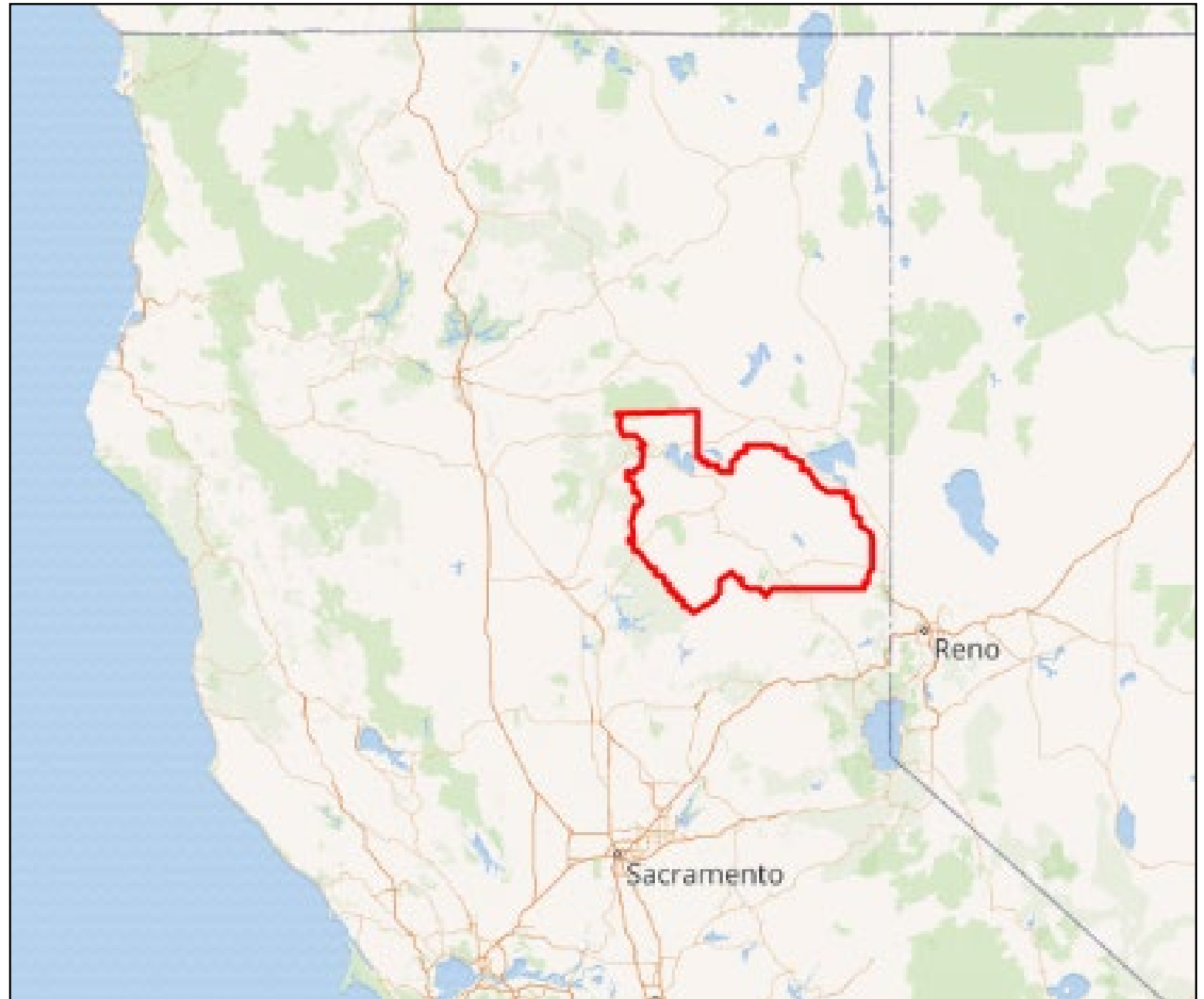
# Middle Mile Case Study: Connecting Plumas



# Overview of Plumas County

*Plumas County is a large county with a small population that has a lower-than-average income. It is one of the least-connected counties in the state.*

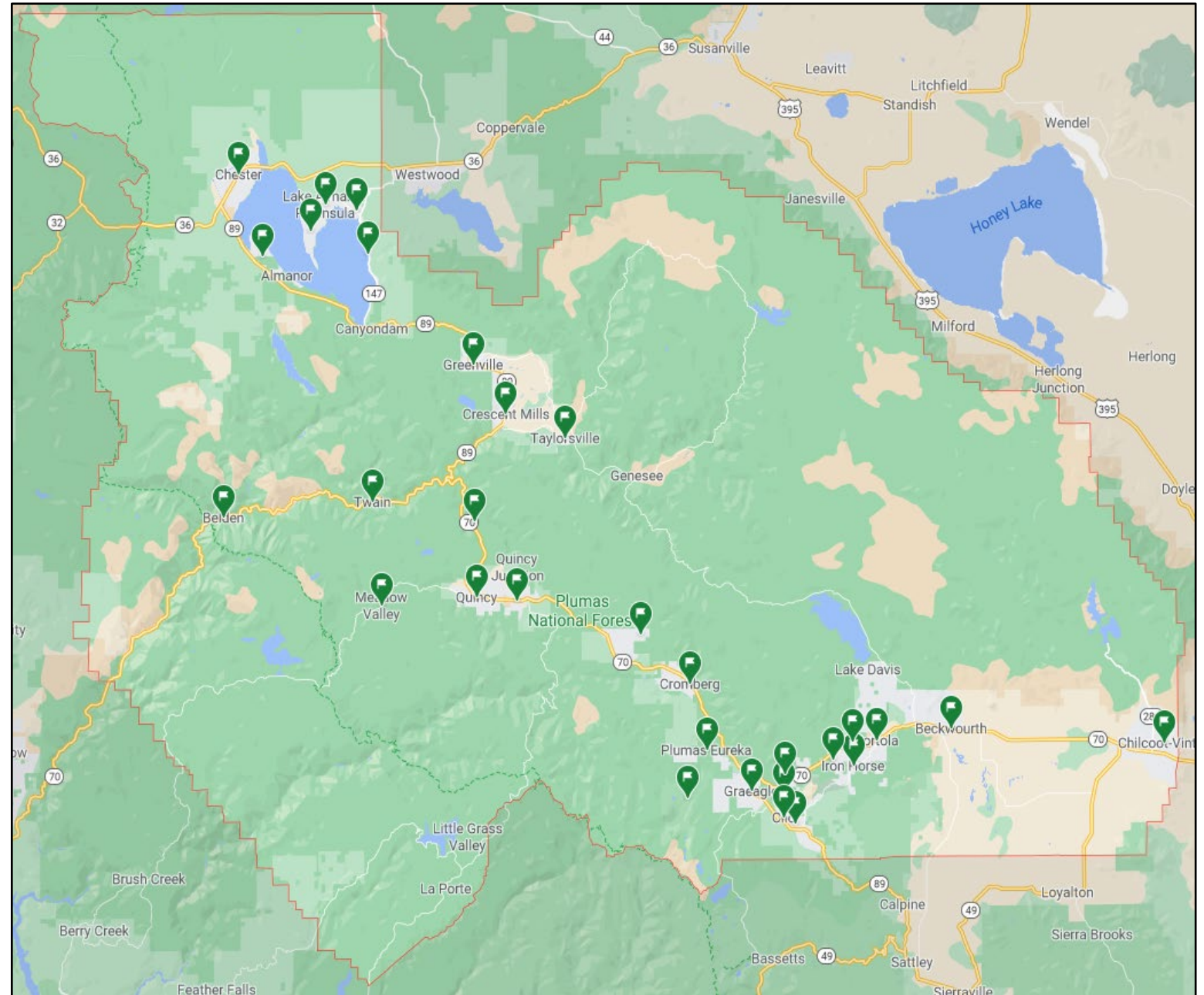
- Square Miles: 2,613
- Population: 18,807
- Median Household Income: \$44,151
- **Population without Broadband at 100 Mbps Download: 14,804 / 81.1%**



## Population Characteristics

*Plumas county has limited government representation (only one incorporated city), and a highly dispersed population.*

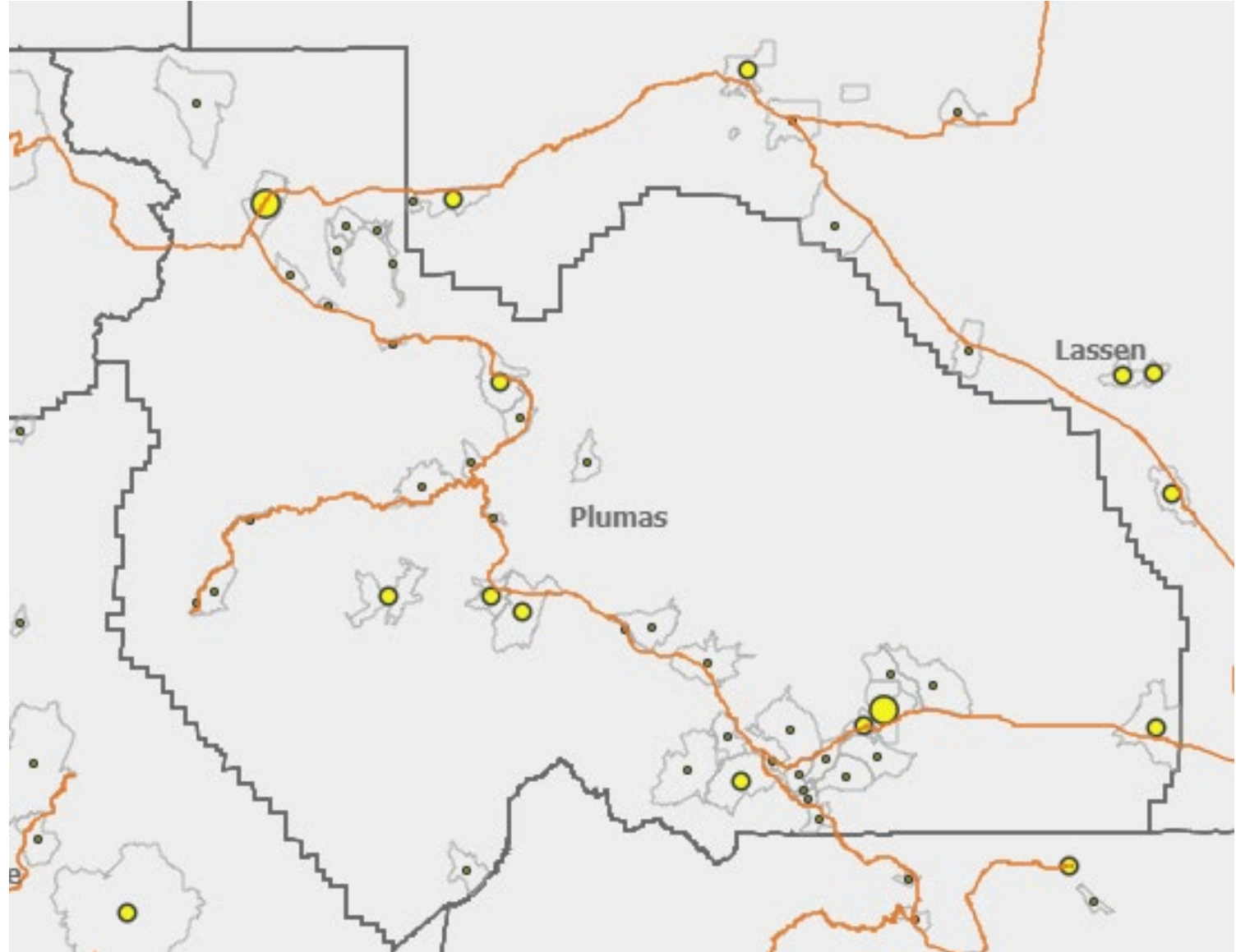
- Only one incorporated city, Portola but numerous CDPs.
- Population is dispersed in small “CDPs” along Highways 70, 89 and 147 (the green flags on the map).
- CDP = “Census Designated Place,” a U.S. Census Bureau categorization used to identify unincorporated communities.



# Middle Mile Enables Last Mile

*Once built, the middle mile network will transform the economics of building the last mile networks.*

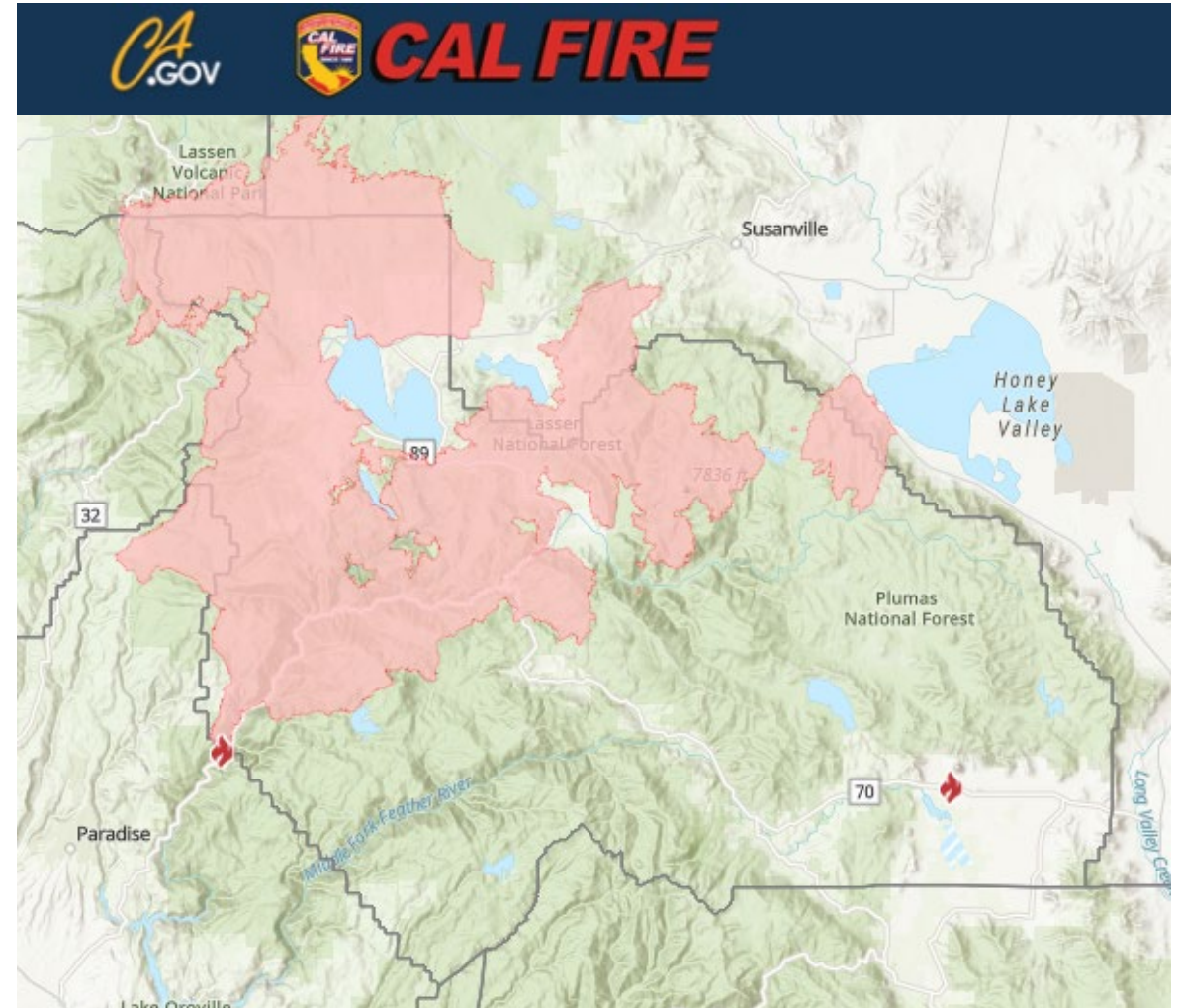
- “Last Mile” refers to the wires that connect a house to the nearest utility pole and connect a community to the “middle mile.”
- While the middle mile component is the most capital intensive, last mile will still require significant resources to deploy and operate.
- To help visualize the last mile, this map shows Plumas’s CDP boundaries.



# Redundancy and Resiliency

Statewide network can improve public safety in two keyways:

- Provide redundancy for existing networks through enabling route diversity.
- Providing hardened infrastructure for segments that are underground.



# Public Engagement and Participation

# Middle Mile Locations Determination Process

- CPUC must solicit and receive public comments within 90 days (before October 21, 2021). Government Code Section 11549.54(f)
  - Criteria for identifying locations. Government Code Section 11549.54(b)
  - Prioritization. Government Code Section 11549.54(c)-(e)
- CPUC, in collaboration with the third-party administrator, provides middle mile network locations in a report to CDT. Government Code Section 11549.54(a)
  - Locations shall be updated “from time to time”. Government Code Section 11549.54(a)
- CDT plans and develops the middle mile network using the above information. Government Code Section 11549.54(h).

# Priorities for Middle Mile Locations

- SB 156 specifies specific analysis and priorities for the statewide middle mile network:
  - Identify Existing Infrastructure
  - Identify Priority Routes
  - Identify Network End Users
  - Network Design and Operation

Priorities help to ensure that rural and urban areas benefit

# We want to hear from you!

CPUC is requesting Public Comment on the Middle Mile Locations:

- Proceeding: Broadband for All, Rulemaking 20-09-001
- Comment Topics: Comments on the identification of —
  - Existing Infrastructure
  - Priority Areas
  - Affordability of Middle Mile Infrastructure
  - Leasing, Interconnection, and Network Capacity
- Deadline: Opening Comments due August 27. Reply comments due September 7.
- Round 2: A second ruling is anticipated in September.
- Ruling Link: <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M397/K312/397312171.PDF>



# Commenting on Locations

- **Formal Party Comments:**

- Learn how to become a party to a proceeding:

<https://www.cpuc.ca.gov/pao/>

- Proceeding Website:

[https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5\\_PROC EEDING\\_SELECT:R2009001](https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROC EEDING_SELECT:R2009001)

- **General/Informal Public Comment:**

- On Middle Mile: <https://apps.cpuc.ca.gov/apex/f?p=401:65:0::NO>

- In General: <https://www.cpuc.ca.gov/about-cpuc/divisions/news-and-public-information-office/public-advisors-office/providing-public-comments-at-the-cpuc>



# California Public Utilities Commission