



GOLDENSTATENET

Project 3 | Lake Overview Packet
January 31, 2022

This map identifies the initial 18 broadband project areas and the network solutions proposed by the Third Party Administrator (TPA), GoldenStateNet, which build upon the California Public Utilities Commission (CPUC) recommended routes. Highlighted in this packet are the solutions identified for the Lake Project and other geospatially registered data sets which influenced them.



Project 3 | Lake Summary

The Lake area project brings broadband access to one of the most underserved regions of the state, and large portions of the county that qualify as severe fire hazard zones. A well-designed middle-mile fiber optic infrastructure has the potential to greatly enhance cell service and aid emergency responders. A last-mile provider has indicated a willingness to provide robust connections for businesses and residences in the area once access to the state's middle-mile network is available.

Middle-mile infrastructure will be in direct proximity to the Tribal Nations of Manchester-Point Arena Rancheria, Dry Creek Rancheria, Coyote Valley Reservation, Pinole Valley Rancheria, Upper Lake Rancheria, Big Valley Rancheria, and Middletown Rancheria. The Tribal Nations of Hopland Rancheria, Guidiville Rancheria, Redwood Valley Rancheria, Robinson Rancheria, Cortina Indian Rancheria, Colusa Rancheria, Sulphur Bank Rancheria will have regional proximity providing future opportunities to connect to the network.

The proposed network solution will complete a wide-ranging regional buildout of infrastructure linked to the neighboring Colusa area project (see Project Report #4). Combining fiber routes proposed by the California Public Utilities Commission with an Indefeasible Right of Use (IRU) dark fiber lease, GoldenStateNet proposes building a broad, resilient ring around Clear Lake, between Upper Lake and Middletown. This approximately 80-mile-long ring runs on Caltrans right-of-way south on Highways 23 and 58 to Middletown, then north on Highways 175 to 29. A portion of the ring has the possibility of being completed rapidly because the solution is able to leverage an IRU which can be quickly put into service once procured.

GoldenStateNet's proposed 93-mile construction of a fiber path between Manchester and Santa Rosa, following Highways 1 and 116, will connect two existing open access fiber networks to make service available to underserved coastal communities. It will add a needed layer of reliability to the region northwest of the Bay Area by completing a multi-path resilient network ring serving Lake, Colusa, and Mendocino Counties. Due to fragile topological and ecological factors, construction could take up to four years to complete.

Project 3 | Lake Highlights

| | |
|--|---|
| Type of Solution: | New Construction Fiber Build Indefeasible Right of Use (IRU) dark fiber lease |
| Highways/Routes: | HWY 101, SR20 |
| Start and End Points or Cities connected: | Regional Loop Sacramento, Arbuckle, Upper Lake, Ukiah, Manchester, Santa Rosa, Sacramento |
| Approximate Fiber Miles: | 173 |
| Quantity of Fibers: | 48, 4, 288 |
| Approximate Start Date: | 2022 |
| Tribal Nations Currently on the Project Path: | Manchester-Point Arena Rancheria, Dry Creek Rancheria, Coyote Valley Reservation, Pinole Valley Rancheria, Upper Lake Rancheria, Big Valley Rancheria, Middletown Rancheria |
| Tribal Nations with Future Opportunities: | Hopland Rancheria, Guidiville Rancheria, Redwood Valley Rancheria, Robinson Rancheria, Cortina Indian Rancheria, Colusa Rancheria, Sulphur Bank Rancheria |
| Regional Broadband Consortium: | Upstate California Connect Consortium |
| Regional Transportation Planning Agency (RTPA) & Metropolitan Planning Organizations (MPO): | Lake County/City Area Planning Council, Mendocino Council of Governments, Colusa County Transportation Commission |

GoldenStateNet Maps

The appended maps share detailed visualizations of the GoldenStateNet (TPA) recommended middle-mile network solutions. The maps illustrate the complex geographical, topological, technological, and socioeconomic landscape of California.

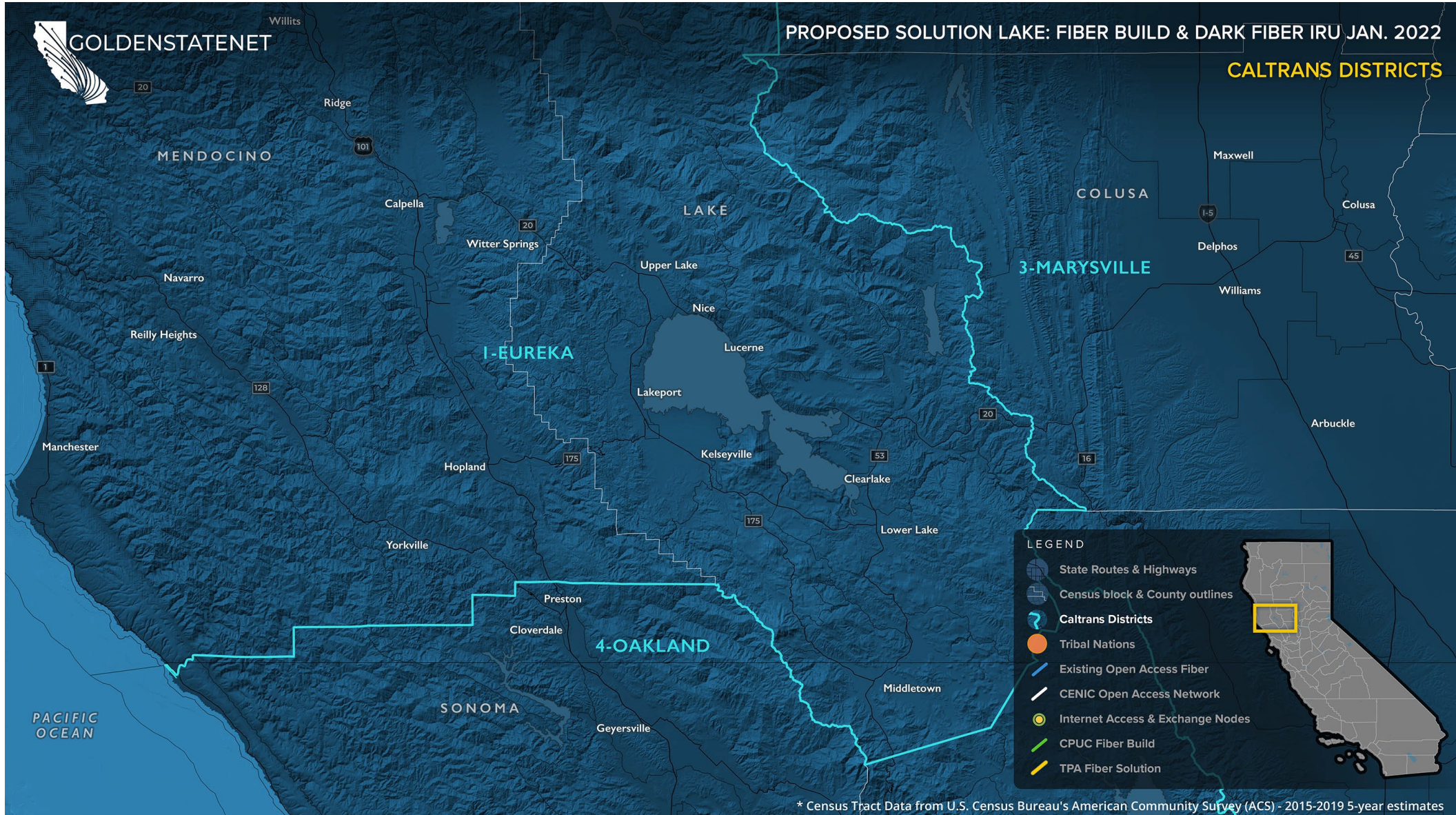
In combination with available network assets and regional partnerships, the map data has helped to directly inform GoldenStateNet's well-considered proposals.



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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

CALTRANS DISTRICTS



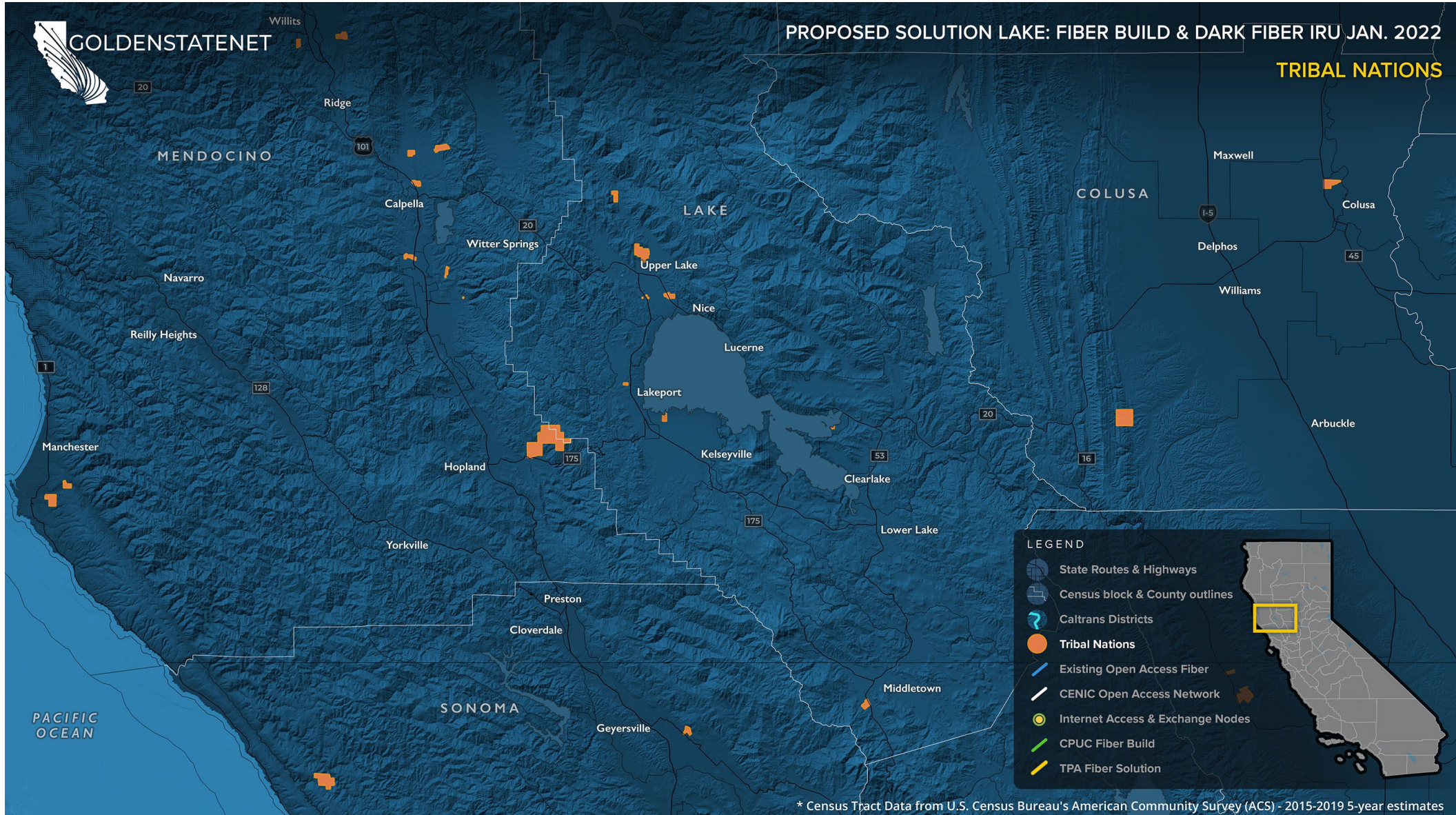
* Census Tract Data from U.S. Census Bureau's American Community Survey (ACS) - 2015-2019 5-year estimates



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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

TRIBAL NATIONS



LEGEND

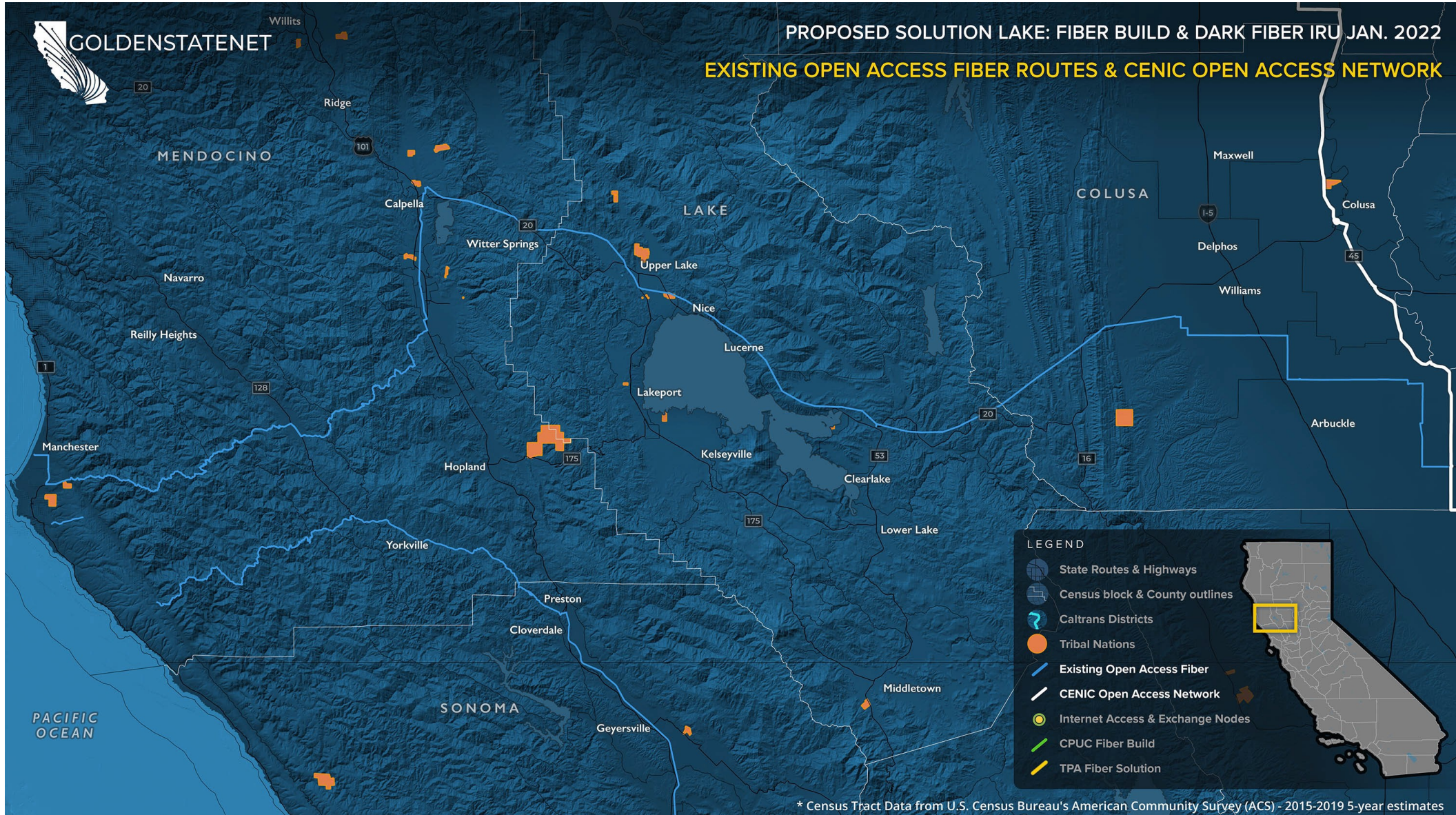
- State Routes & Highways
- Census block & County outlines
- Caltrans Districts
- Tribal Nations
- Existing Open Access Fiber
- CENIC Open Access Network
- Internet Access & Exchange Nodes
- CPUC Fiber Build
- TPA Fiber Solution

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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

EXISTING OPEN ACCESS FIBER ROUTES & CENIC OPEN ACCESS NETWORK

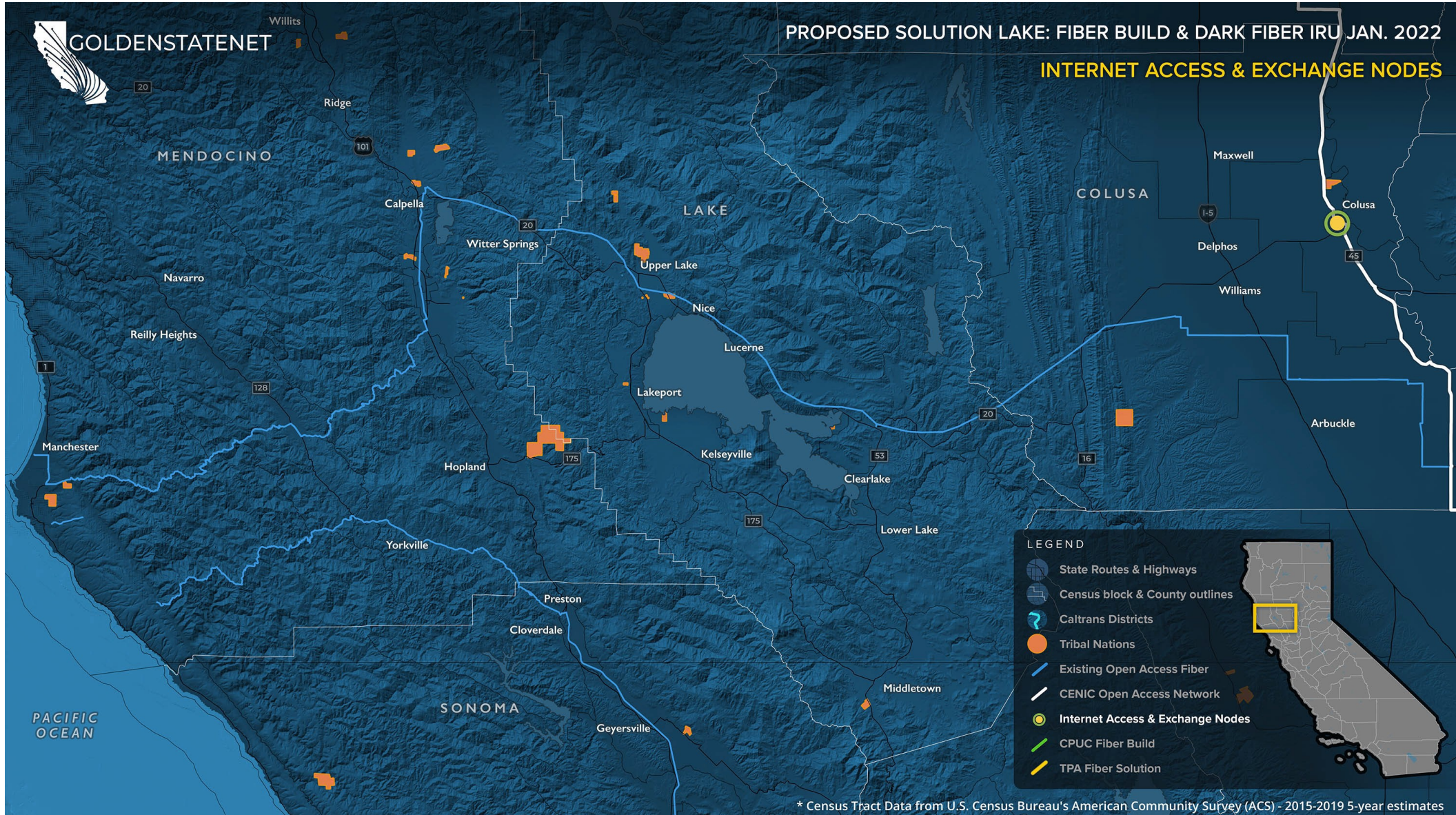


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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

INTERNET ACCESS & EXCHANGE NODES

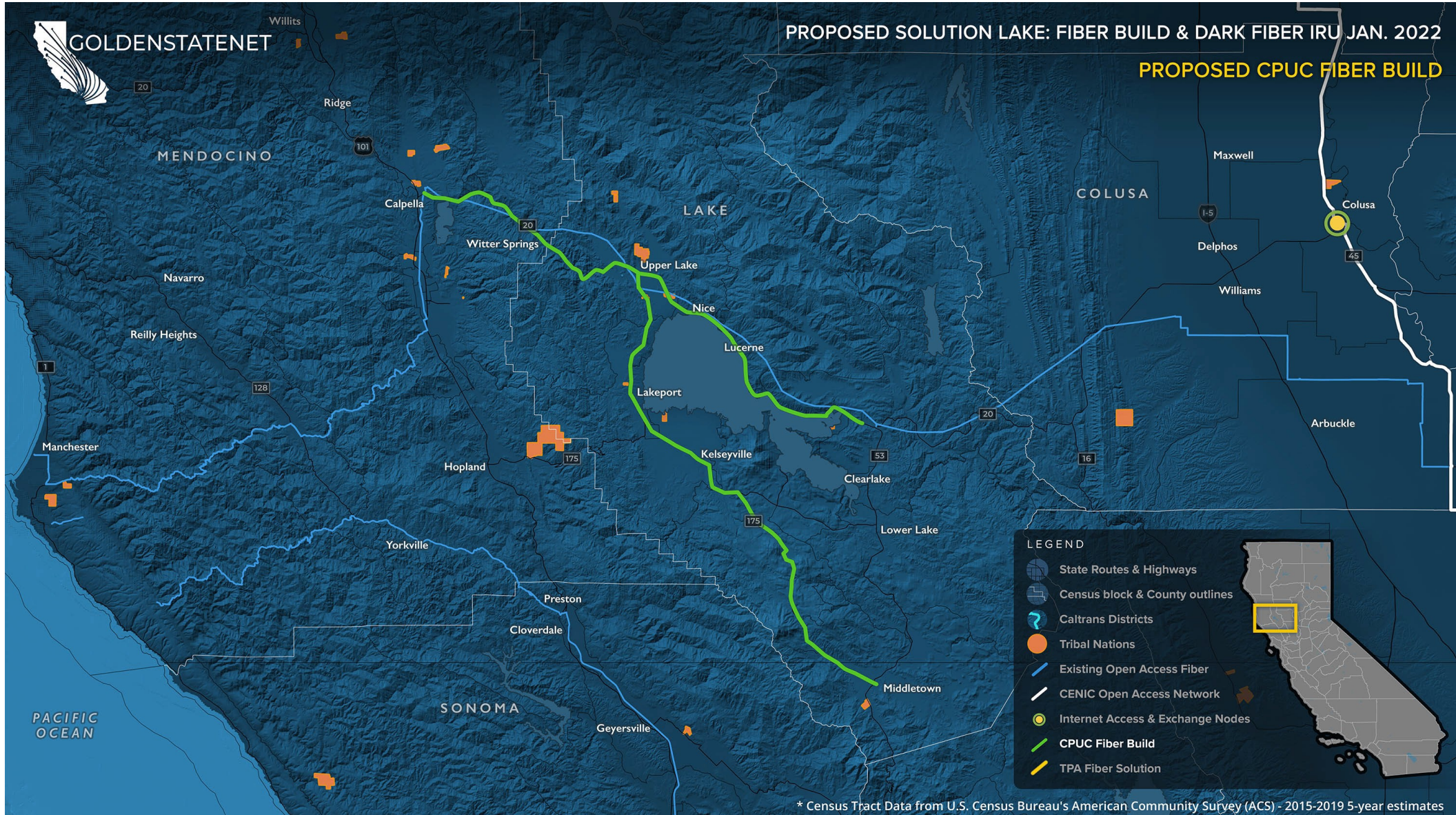


* Census Tract Data from U.S. Census Bureau's American Community Survey (ACS) - 2015-2019 5-year estimates



PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

PROPOSED CPUC FIBER BUILD



LEGEND

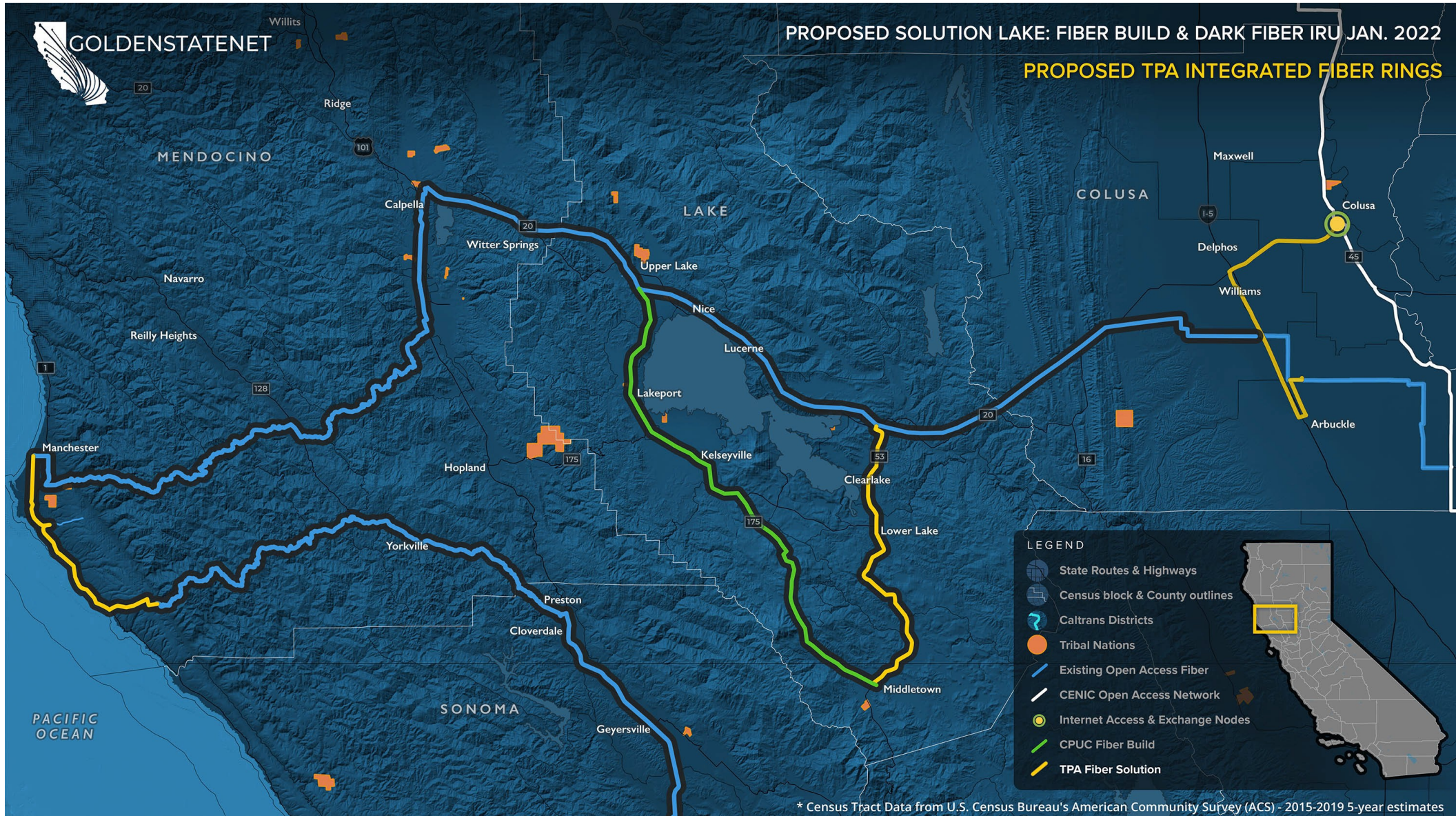
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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

PROPOSED TPA INTEGRATED FIBER RINGS

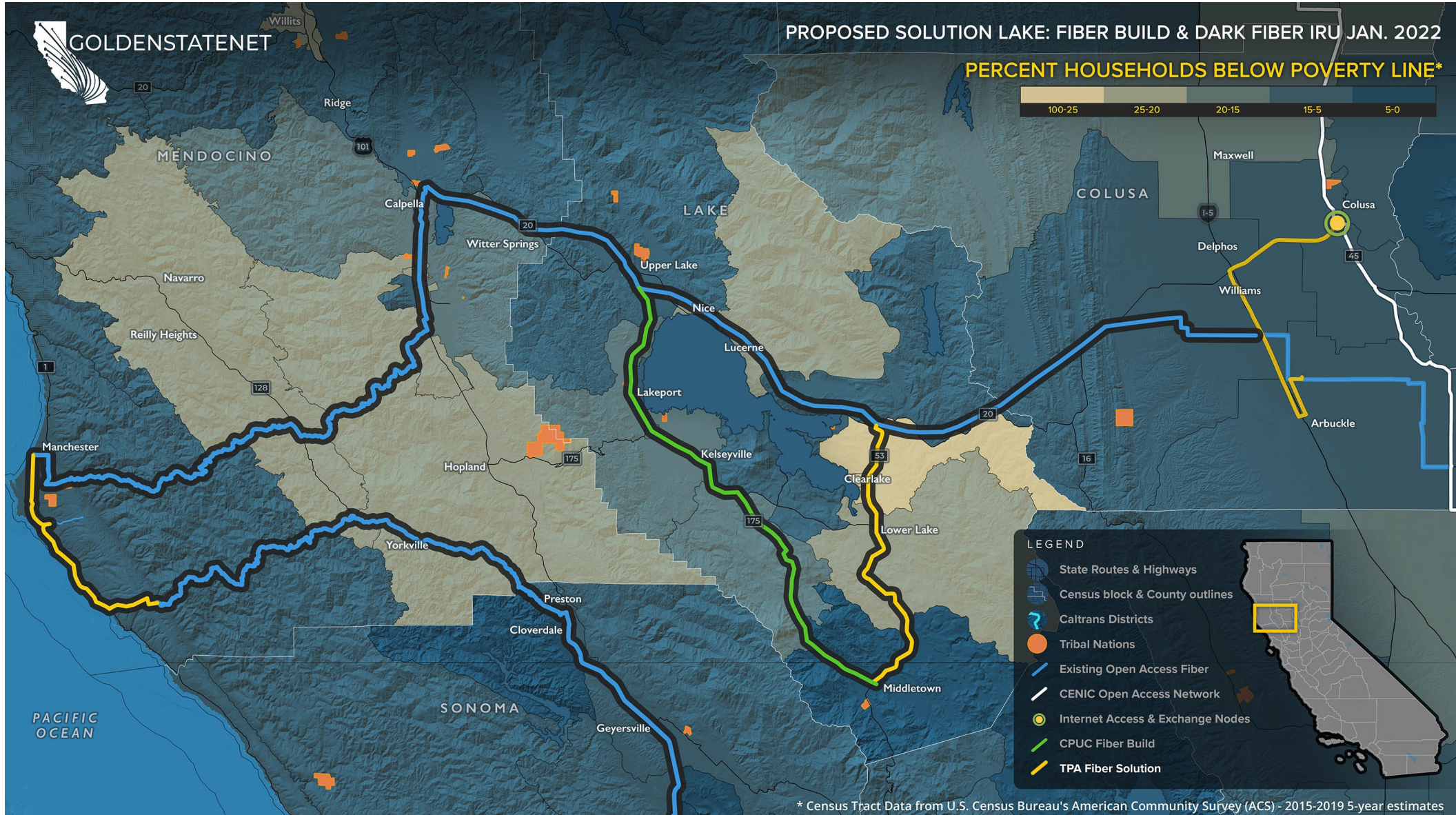


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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

PERCENT HOUSEHOLDS BELOW POVERTY LINE*

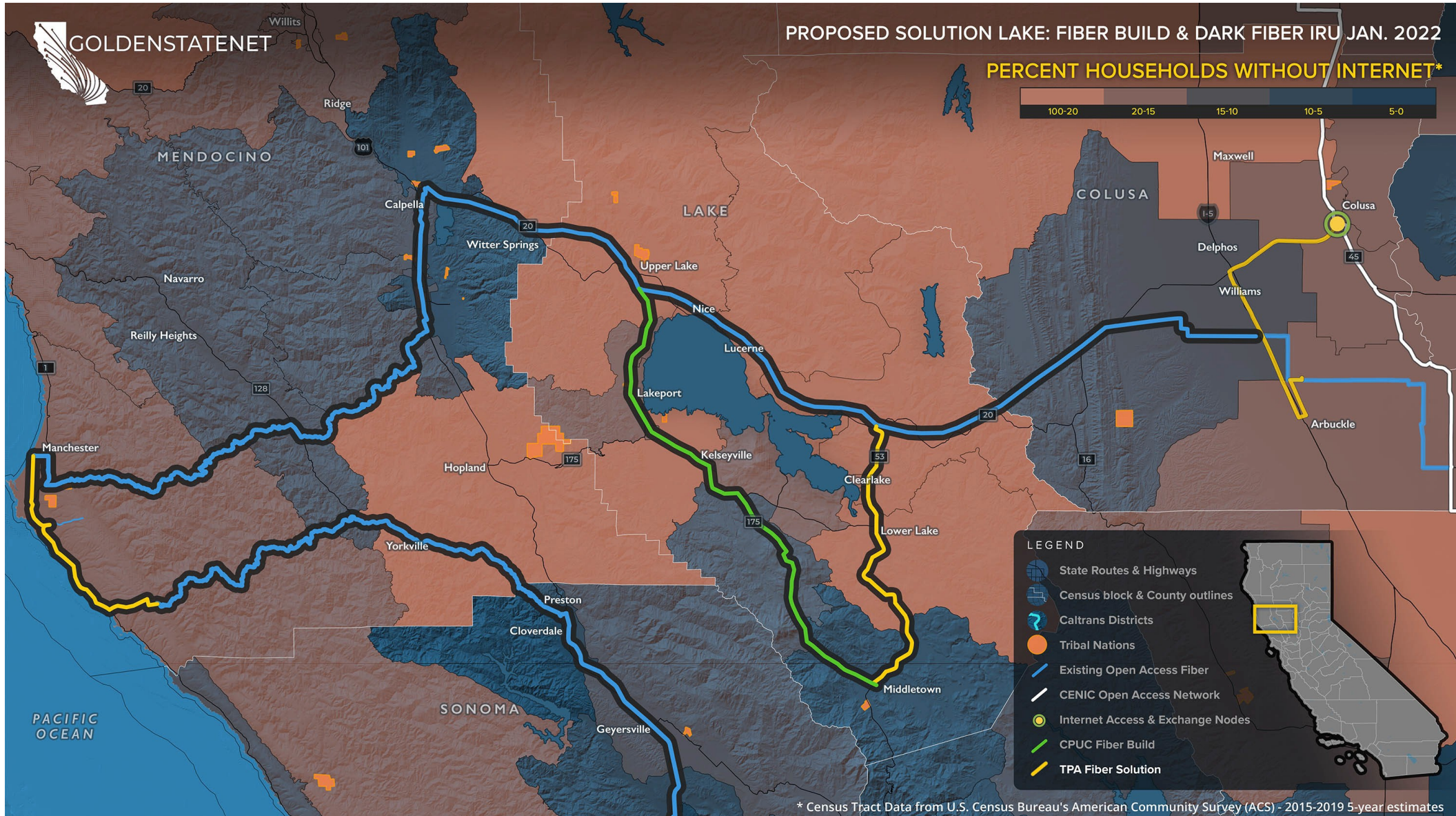
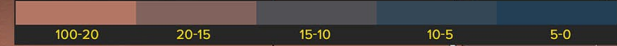


LEGEND

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PERCENT HOUSEHOLDS WITHOUT INTERNET*



LEGEND

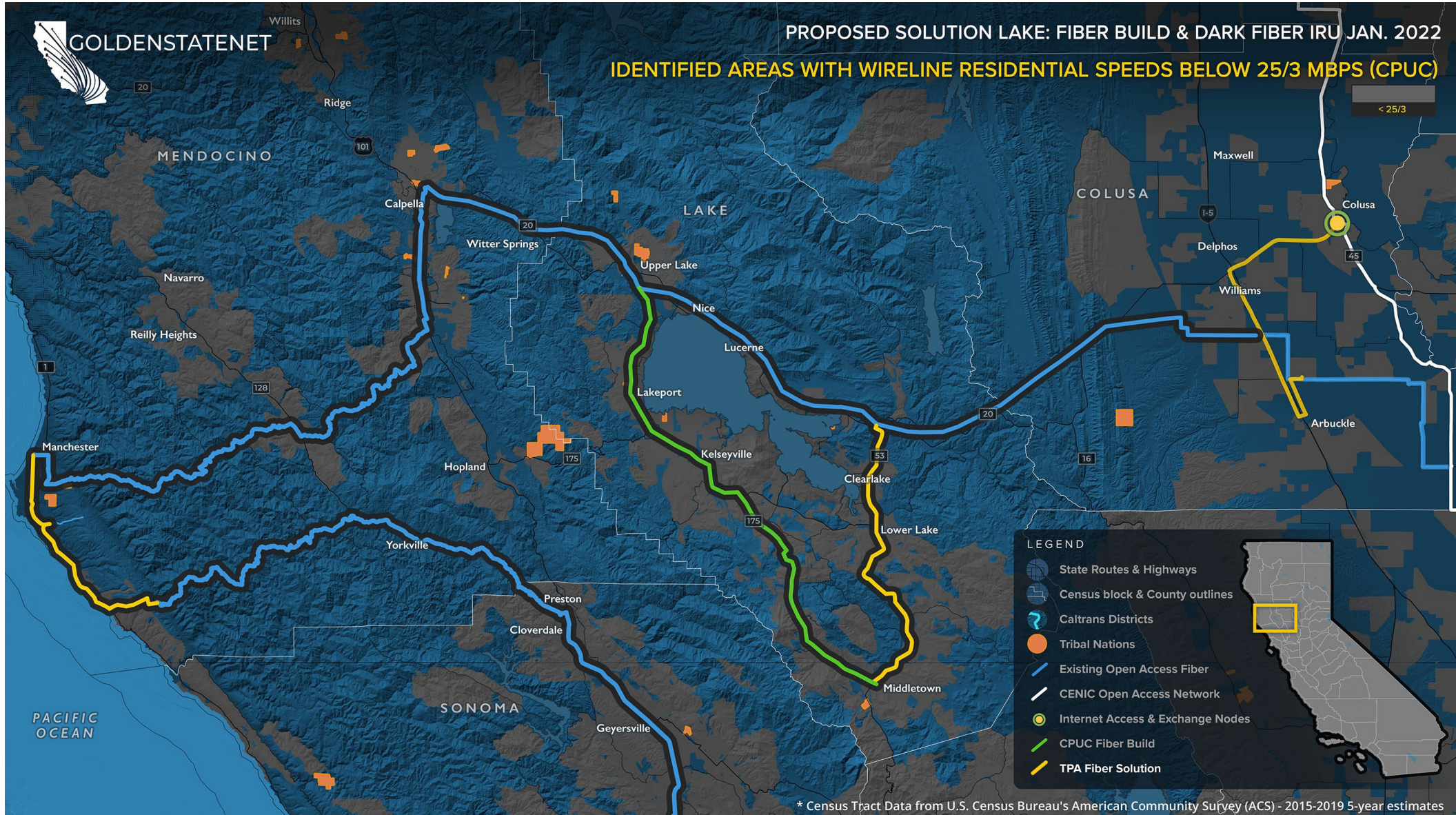
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PROPOSED SOLUTION LAKE: FIBER BUILD & DARK FIBER IRU JAN. 2022

IDENTIFIED AREAS WITH WIRELINE RESIDENTIAL SPEEDS BELOW 25/3 MBPS (CPUC)



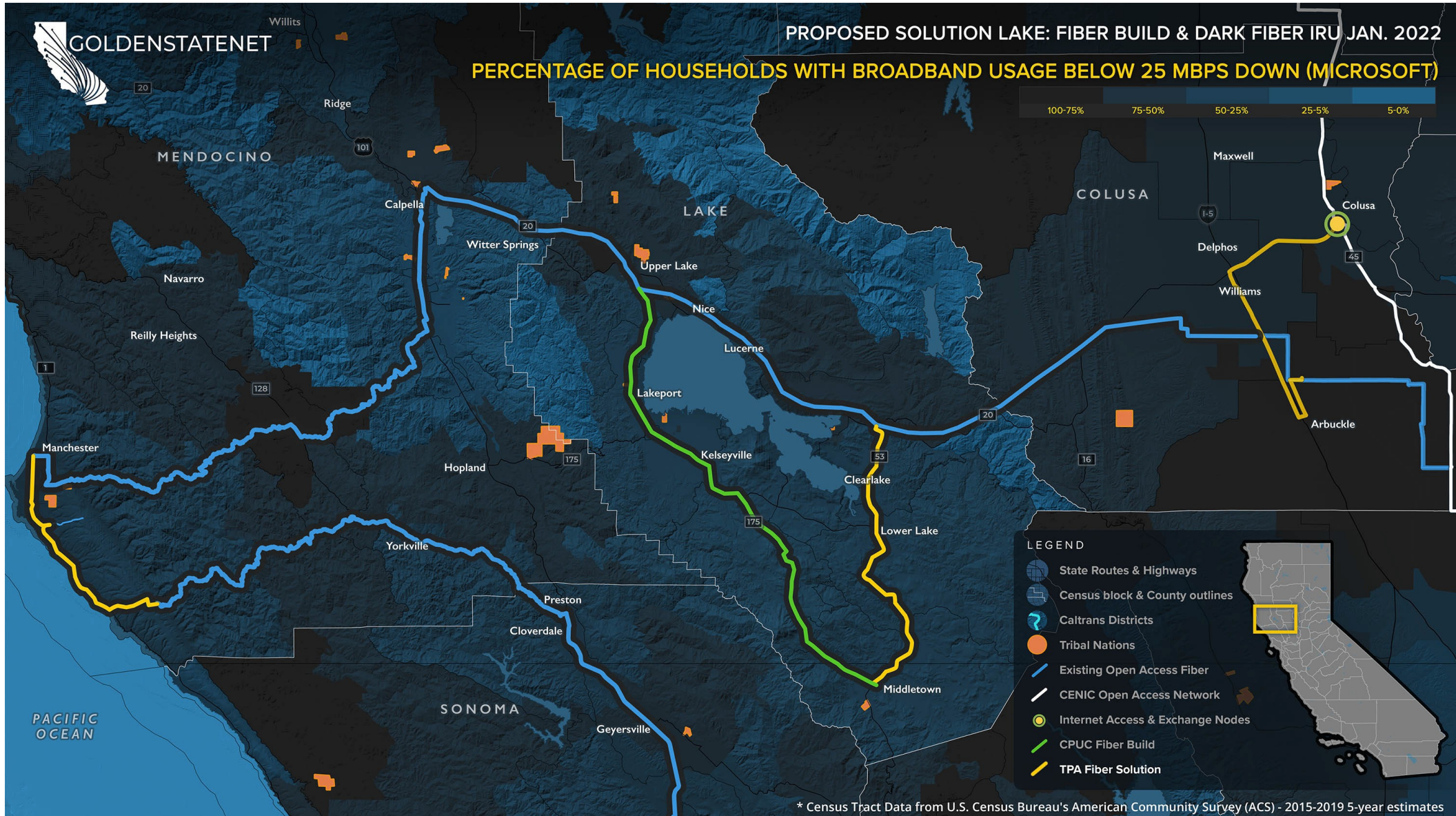
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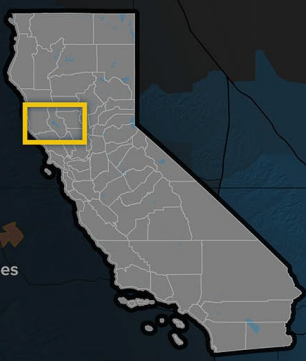
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PERCENTAGE OF HOUSEHOLDS WITH BROADBAND USAGE BELOW 25 MBPS DOWN (MICROSOFT)



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Data Sources*

- American Community Survey - Internet Connectivity
- American Community Survey - Poverty Status
- California 2020 Legislative District Boundaries
- California Broadband Availability Maps and GIS Data
 - 20 Layers used from combined database
- California Census Blocks
- California Census Tracts
- California Counties
- California Fire Hazard Severity Zones
- California National Highway System
- California Major Lakes and Reservoirs
- California Parks Land
- California State Highway Network (SHN)
- California Tribal Lands
- CalTrans Juridictions
- CENIC Digital Fiber Segments
- CPUC Fixed Served Status
- Existing Open Access Networks - Under NDA
- FCC Fixed Consumer Deployment
- Microsoft Broadband Usage Percentages Dataset
- Ookla Test Data Results by Census Tract
- Technology Use Demographics (e.g. Internet use in home) by Census Tract

**All data was published between 2019 - 2021 and represents the most current data available. Not all layers are represented on the maps above. However, the data was utilized as a part of the development process.*



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