

Broadband Program for Mendocino County



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Mendocino County Digital Infrastructure Implementation Project Plans

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North Bay / North Coast

Broadband Consortium



SECTION 1

Mendocino County School Districts and Broadband Coverage



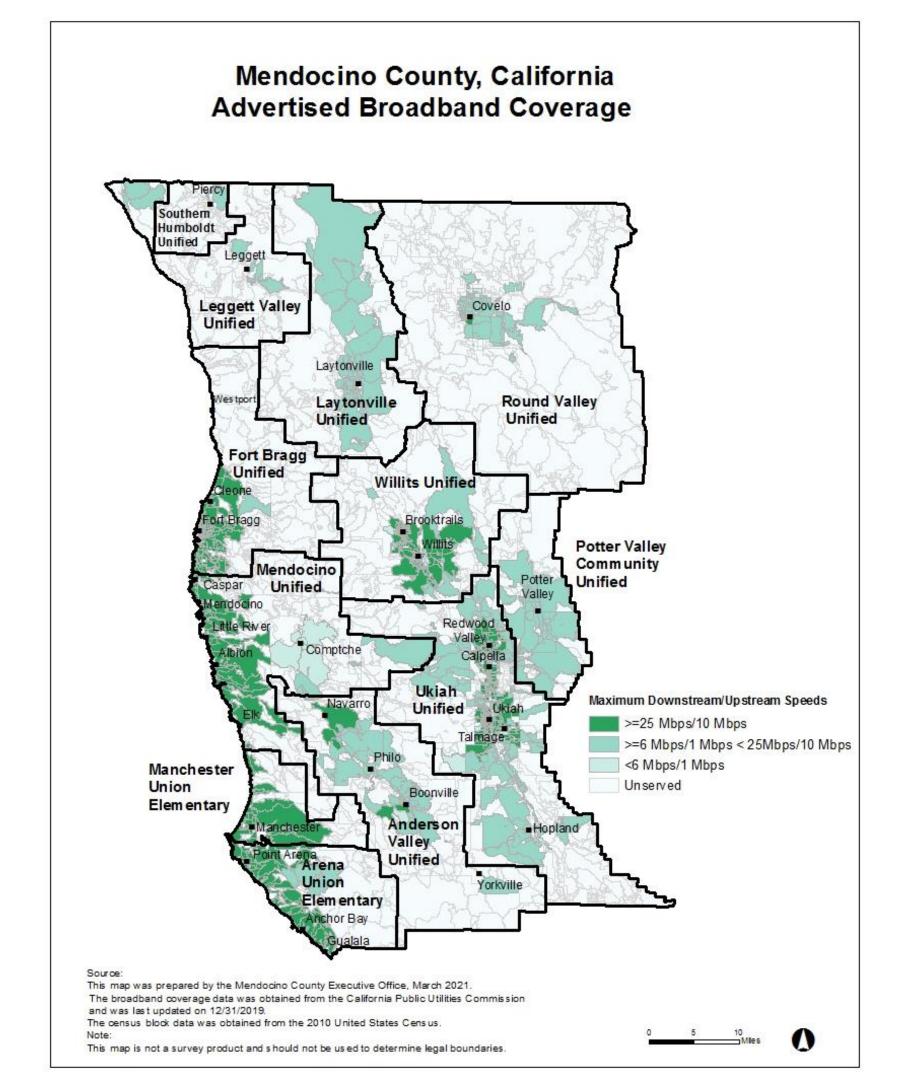
Goals and Objectives

MAP

Map broadband data from the CPUC with Mendocino County school district boundaries.

CALCULATE

Calculate the estimated number of households in unserved census blocks.



Households in Unserved Census Blocks by School District

| Adve | rtised Downstream/Upstream Spee | ds Below 6 Mbps/2 | 1 Mbps |
|---------------------------------|---------------------------------|-------------------|---------------------------------|
| District | Households in Unserved Blocks* | Total Households | % Households in Unserved Blocks |
| Anderson Valley Unified | 282 | 1075 | 26 |
| Arena Union Elementary | 147 | 1484 | 10 |
| Fort Bragg Unified | 420 | 6280 | 7 |
| Laytonville Unified | 445 | 1252 | 36 |
| Leggett Valley Unified | 148 | 292 | 51 |
| Manchester Union Elementary | 38 | 243 | 16 |
| Mendocino Unified | 560 | 2735 | 20 |
| Potter Valley Community Unified | 167 | 814 | 21 |
| Round Valley Unified | 281 | 1022 | 27 |
| Southern Humboldt Unified | 64 | 98 | 65 |
| Ukiah Unified | 1307 | 14451 | 9 |
| Willits Unified | 1086 | 5190 | 21 |
| Point Arena High School | 185 | 1727 | 11 |
| Total | 4954 | 34945 | 14 |

^{*}Blocks with service below 6 Mbps/1 Mbps or no service

Sources: Broadband coverage-CPUC, 2019
Census block boundaries and household data-2010 US Census

Households in Unserved Census Blocks by School District

| Advert | ised Downstream/Upstream Speed | ds Below 25 Mbps/: | L0 Mbps |
|---------------------------------|--------------------------------|--------------------|---------------------------------|
| District | Households in Unserved Blocks* | Total Households | % Households in Unserved Blocks |
| Anderson Valley Unified | 938 | 1075 | 87 |
| Arena Union Elementary | 191 | 1484 | 13 |
| Fort Bragg Unified | 455 | 6280 | 7 |
| Laytonville Unified | 1252 | 1252 | 100 |
| Leggett Valley Unified | 292 | 292 | 100 |
| Manchester Union Elementary | 44 | 243 | 18 |
| Mendocino Unified | 668 | 2735 | 24 |
| Potter Valley Community Unified | 814 | 814 | 100 |
| Round Valley Unified | 948 | 1022 | 93 |
| Southern Humboldt Unified | 98 | 98 | 100 |
| Ukiah Unified | 2538 | 14451 | 18 |
| Willits Unified | 1393 | 5190 | 27 |
| Point Arena High School | | | |
| | 235 | 1727 | 14 |
| Total | 9640 | 34945 | 28 |

^{*}Blocks with service below 25 Mbps/10 Mbps or no service

Limitations to Analysis

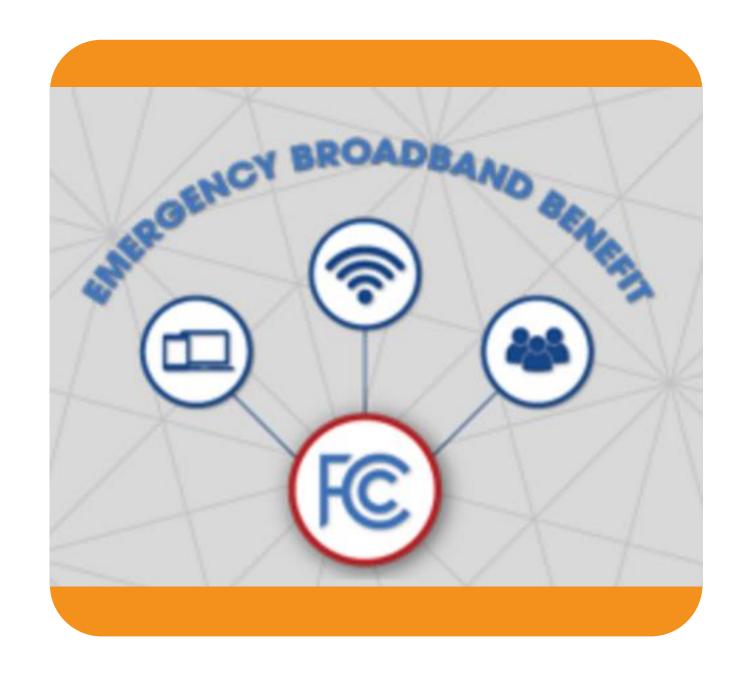
- Data shows households in unserved census blocks-not unserved households
- Currently working with 2010 census data
- CPUC data is collected through advertised maximum speeds, which tends to overestimate coverage



SECTION 2

Mendocino County Emergency Broadband Benefit Program





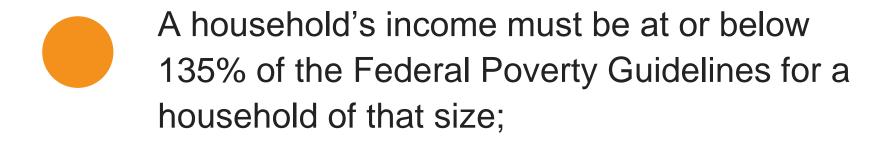
Emergency **Broadband Benefit** Program (EBB Program)

www.fcc.gov/broadbandbenefit

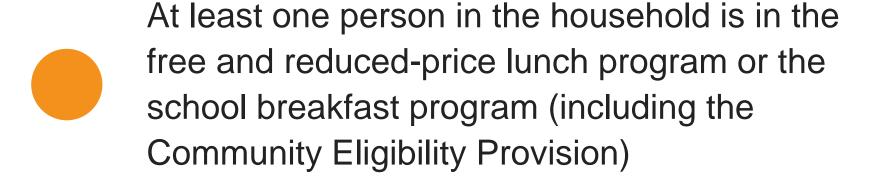
Emergency
Broadband Benefit
Program
(EBB Program)

- Consolidated Appropriations
 Act, 2021 established an
 Emergency Broadband
 Connectivity Fund of \$3.2
 billion
- Eligible low-income households may receive a \$50-75 discount off the cost of broadband service and certain connected devices.
- The EBB Program will leverage Lifeline systems like the National Verifier and the National Lifeline Accountability Database for subscriber eligibility.

Who can get the benefit?



At least one person in the household must receive benefits from one of the following federal assistance programs: Medicaid, Supplemental Nutrition Assistance Program, Supplemental Security Income, Federal Public Housing Assistance, or Veterans and Survivors Pension Benefit;



Who can get the benefit?

- At least one person in the household has received a Federal Pell Grant in the current award year; or
- At least one person in the household can participate in their broadband provider's existing low-income or COVID–19 program.

If a household is located on Tribal lands, it is eligible if at least one person in the household participates in Bureau of Indian Affairs general assistance, Tribally administered Temporary Assistance for Needy Families, Head Start (only those households meeting its income qualifying standard), or the Food Distribution Program on Indian Reservations.



SECTION 3

Mendocino County & GEO Partners LLC Crowd Sourced BB Speed Test



The Community Foundation of Mendocino County

Crowd Sourced Speed Test



Welcome to the GEO crowd-sourced broadband project.

From this web site we can collect data about your broadband speed and create a map for your community that will help your community in efforts to get grants and other support to improve broadband for your community. Select below the action you wish to take.

Please make sure that no one in your household is streaming videos or gaming while you take this test. If you are connected to **school** or **work**, please turn off your **VPN** during this test. If you don't know what a VPN is, then you are ready to take the test.

Unless you enter an address with no available service, the address that you enter should be the address where you are right now.

| click on choice | |
|--------------------|--|
| 0 | Use my GPS location |
| 0 | Enter my exact address |
| 0 | Enter my partial address (if you are concerned about privacy, choose this) |
| 0 | Enter an address with NO AVAILABLE SERVICE |
| 0 | See a map of the results (requires a password for access) |
| | Your contact email (optional) |
| | Let's do it |

We **do not** use tracking cookies. We **do not** store your personal data or address.

We will store your location and speed test results.

Please review this Disclaimer.

Mendocino County & GEO Partners LLC

Crowd Sourced BB Speed Test

Features

1 Enables survey of regional userdata, in real time.

Assists in infrastructure grant development.

Collects and shares accurate connectivity info.

Calculates project route miles at any scale.

Can corroborate or rebut carrier service claims.

Proactively
aligns us with
DATA Act
implementation.

Resulting Crowd Sourced Broadband Map

Print this page

Scott County

19,303 Households Population 47,173 Broadband survey 3131 16.22% Percent participation Participation goal (10%) 1,930

Download

· No Service 281 9.0% *0-10 Mbps 826 26.4% 10-25 Mbps 551 17.6% *25-150 Mbps 1238 39.5% *150+ Mbps 235 7.5%

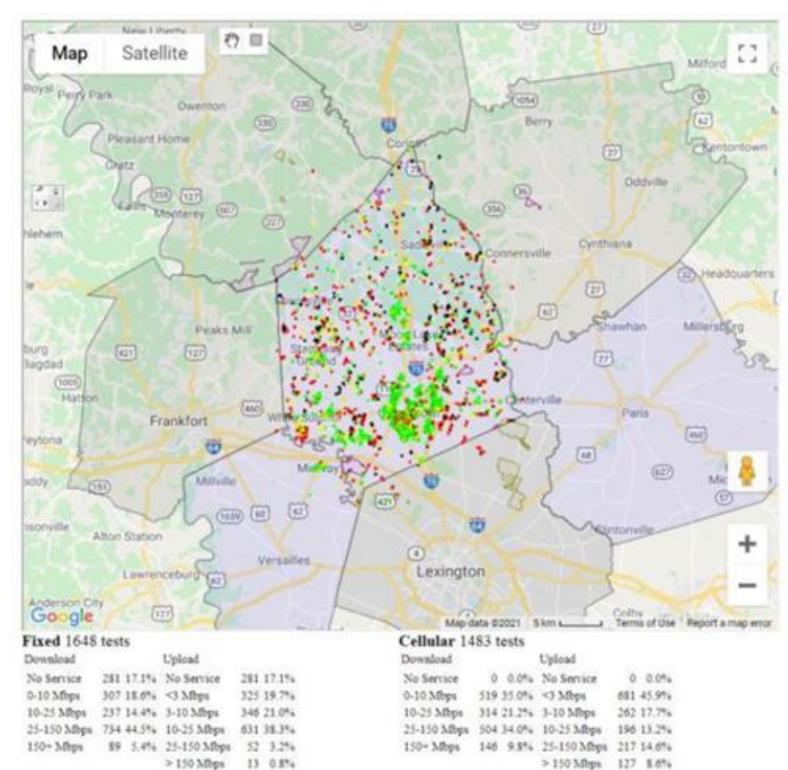
Upload

No Service 281 9.0% <3 Mbps 1006 32.1% 3-10 Mbps 608 19.4% 10-25 Mbps 827 26.4% 25-150 Mbps 269 8.6% 140 4.5% > 150 Mbps Min Max Avg Mbps

Download 0.01 960.84 52.71 Upload 0.01 909.11 24.46

CAF Areas

RDOF Areas



> 150 Mbps 127 8.6%

Satellite View



Broadband Data

Total Pop: 149

Total House: 49

Road Miles: 0.34

Est Miles: 0.310

Households: 49

Road Feet: 1,780

Est. Feet: 1,614

ID: 60450104004020

Providers: 6

| ISP | down | up | bdown | bup | tech |
|-----------------|--------|-------|--------|--------|-----------------------|
| AT&T California | 12.00 | 0.51 | 0.00 | 0.00 | ADSL2 |
| Comcast | 987.00 | 35.00 | 0.00 | 0.00 | Cable Modem-DOCSIS 3. |
| HughesNet | 25.00 | 3.00 | 0.00 | 0.00 | Satellite |
| Skycasters | 2.00 | 1.30 | 2.00 | 1.30 | Satellite |
| Sonic.net | 40.00 | 12.00 | 100.00 | 100.00 | ADSL2 |
| Viasat Inc | 35.00 | 4.00 | 0.00 | 0.00 | Satellite |

| ISP | households | max down | max up |
|-----------------|------------|----------|--------|
| AT&T California | 49 | 12.0 | 0.5 |
| Comcast | 49 | 987.0 | 35.0 |
| HughesNet | 49 | 25.0 | 3.0 |
| Skycasters | 49 | 2.0 | 1.3 |
| Sonic.net | 49 | 40.0 | 12.0 |
| Viasat Inc | 49 | 35.0 | 4.0 |

Next Steps

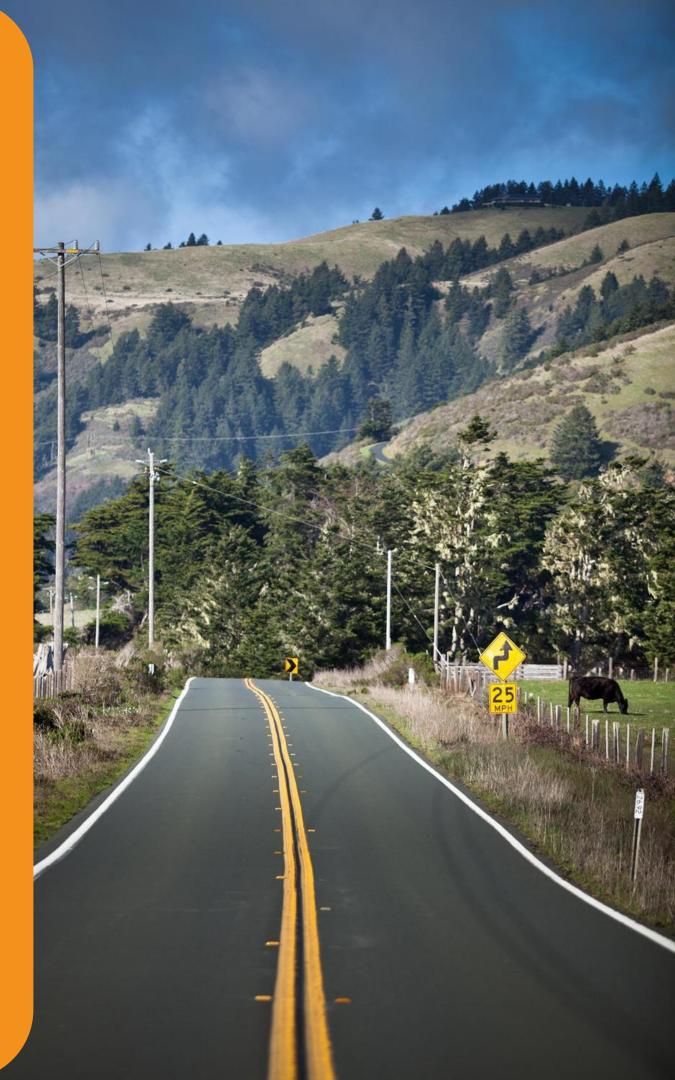
- Continue training through GEO Partners Pilot Project
- Complete, refine, and update the website with regional partners
- Coordinate outreach to schools, Tribes, service organizations, and Facebook groups.
- Monitor and collect speed-test survey responses.
- Reinforce crowd-sourcing of data, sufficient to region.



The Community Foundation of Mendocino County

SECTION 4

Implementation Projects of the Mendocino County Digital Infrastructure Plan



Goal

The stated goal of the Mendocino County Digital Infrastructure Plan: 2019-2025:

Available and affordable highspeed internet access for 98% of households by 2025

At 100 megabits per second (mbps) download speed and 20 mbps upload speed

Objectives

The stated objectives of the Mendocino County Digital Infrastructure Plan: 2019-2025:

Deploy Fiberbased and Fixed Wireless Technology to Remote and Rural Areas Create Policies for local governments to use to Improve the Network

Develop Equity and Inclusion Programs

Improve the Resiliency and Redundancy of the Infrastructure

Project Planning Assumptions

- 100% via underground fiber installation
- Underground to preserve and "future proof" the infrastructure during wildfires and other unforeseen disasters
- Provide up to 1 Gbps symmetrical Internet connectivity and voice service
- Cover the Ten (10) Native American Sovereign Nations located in the County

Project Planning Assumptions

- Maximum speeds: 1000 Mbps
- The standard offering will be 100/100 Mbps
- "Low-Income" customers service at no less than **25/25 Mbps** at \$15.00 per month



Project #1

- Unserved Households 3,943
- Communities/Areas
- Round Valley/Covelo/Dos Rios;
 Laytonville; Willits/Brooktrails;
- Parts of Ukiah, Calpella, Redwood Valley and, Hopland
- Project Capital Costs \$158,145,578

TEHAMA Wheeler N. Laytonville Cabinet Place Sunnyside Covelo Hut Dos Rios Cabinet Laytonville Cabinet Laytonville Hut, Project 1 Alder Springs Four Pines GLENN Willits/Longvale Cabinet Dogtown BrookTrails West, Cabinet BrookTrails, East, Cabinet Fort Brage National Forest Mendocino Pacific Ocean Ukiah Hut & Network Hub Bridgeport Landing Lakeport Mancheste Nacomis Rancheria Del Mar Goat Rock

Map 3, Project #1 Backbone, Last Mile, & Cabinets

Mendocino County Digital Infrastructure Plan: 2019-2025 - NBNCBC

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Project #2

- Unserved Households 2,716
- Communities/Areas 19
- Piercy, Leggett, Branscomb, Westport, Cleone, Fort Bragg, Caspar, Mendocino, Little River, Albion, Elk, Manchester, Point Arena, Anchor Bay, Gualala, Comptche, Philo/Navarro, Boonville, and Yorkville

Mendocino County Digital Infrastructure Plan: 2019-2025 - NBNCBC

Project Capital Costs \$263,291,658

Map 3 - Project #2 Backbone, Huts, Cabinets, Last Mile & Unserved Households



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Project #3

- Unserved Households 1,927
- Communities/Areas 6
- Redwood Valley, Potter Valley, Talmage, Calpella, Ukiah, and outlying regions of Projects 1 and 2
- Project Capital Costs \$110,347,182



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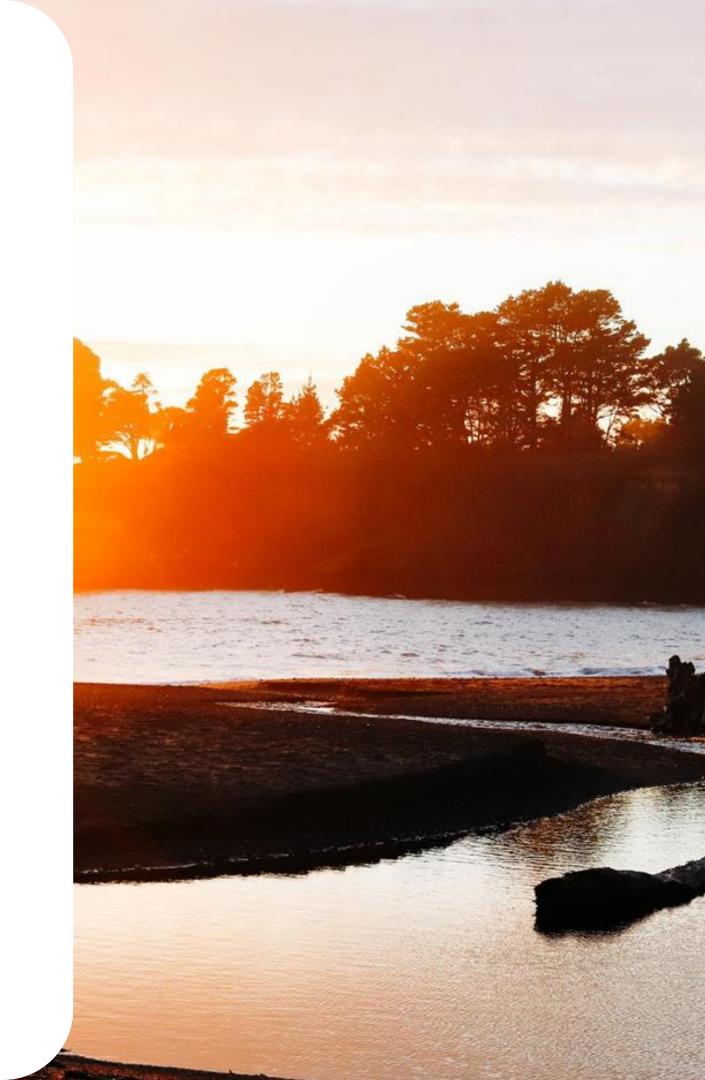
Current Status

- Project #1- Grant Application Awaiting CPUC Decision
- Project #2- Finalizing for Submission for CASF Grant
- Project #3-Finalizing for Submission for CASF Grant
- More at: http://www.mendocinobroadband.org/mendocinocounty-digital-infrastructure-projects/



FCC Rural Digital Opportunity Fund

- Eligible Locations 9,901
- RDOF Winners 5
- Frontier; Etheric Networks; LTD Broadband, Commnet; and, Space X
- RDOF Funds \$46,614,159





FCC's Rural Digital Opportunity Fund Winning Bidders

H U M B O L Redway Six Rivers Ettersburg **National Forest** Yolla Bolly Briceland TRINITY Middle Eel Shelter Cove **TEHAMA** Mountain Castle Peak Sur nyside, Project 1 Backbone Me idocino National Forest **GLENN** Project 2 Backbone Copper City, Lor e Star Union Landing Project 3 Backbone Four Pines FORNIA Kibesillah Pacific Ocean Fort Brag Pepperwood Grov Buckingham Park Winner Name (# of CBG's : Locations) Commnet Wireless, LLC (1:565) Etheric Communications LLC (18: 6,027) Frontier Communications Corporation, DIP (3:1,182) LTD Broadband LLC (23: 1,944) Space Exploration Technologies Corp. (7: 183) cettern mapping and direction data © 2012 NAVTEQ. All rights reserved. The Data for areas of Canada includes information taken with permission from Canadam authorities, including © Her Majesty the Juven in Right of Canada, © Queen's Pinter for Oritano NAVTEQ and NAVTEQ on BOARD are trademarks of NAVTEQ. © 2012 Tele Allas North America, Inc. All rights reserved. Tele Allas and Tele Atlas

Map 1 - Mendocino County Broadband Backbone

Trinity National Forest

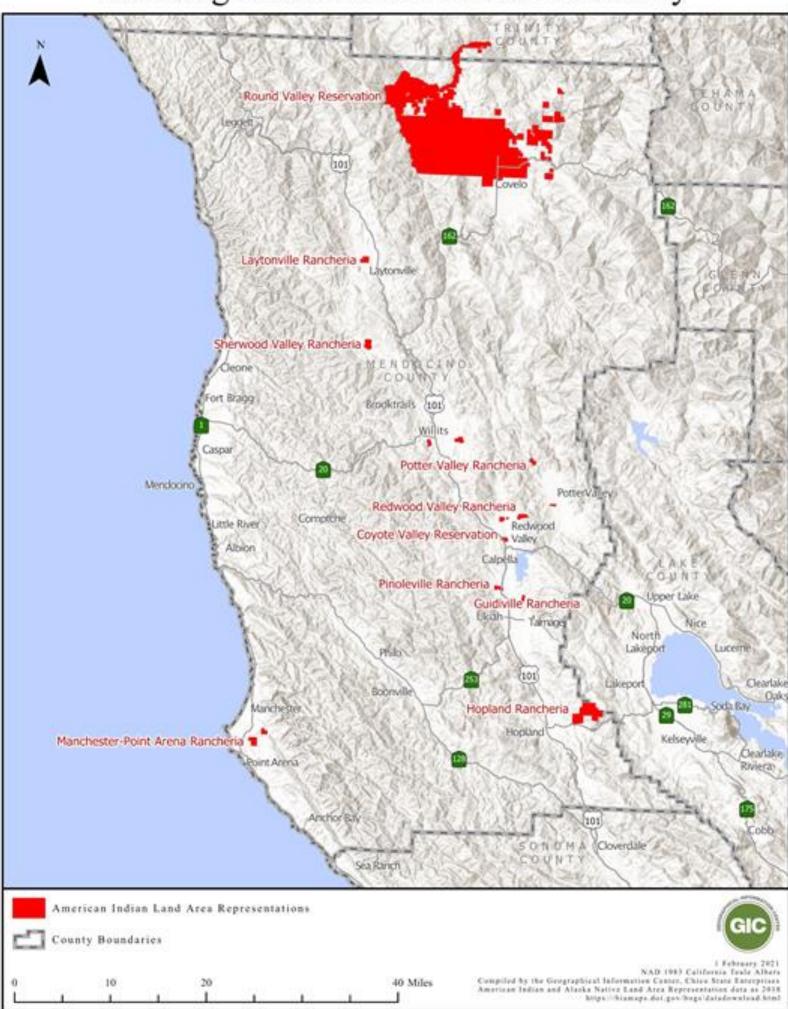
Mendocino County Digital Infrastructure Plan: 2019-2025 - NBNCBC



Tribal Stimulus Fund

- \$1.0 Billion Nationwide
- 10 Federally Recognized Sovereign Nations in Mendocino County

Sovereign Nations of Mendocino County



Mendocino County Digital Infrastructure Plan: 2019-2025 - NBNCBC

2020-21 State Legislation

Key points needed within SB 4 and AB 14

- NBNCBC Oversight (Marin, Mendocino, Napa and Sonoma) commend Senator Lena Gonzalez and Assembly-member Cecelia Aguiar-Curry for working collaboratively on needed legislation.
- We recommend the bills call for the California "floor" standards be 25 mbps download and 25 mbps upload to support remote learning, remote health delivery support and public safety communications. Ideally, we should strive for 100/100.
- We feel the FCC standards of 25/3 are inadequate and should be raised too and we should push for that to happen.

 Mendocino County Digital Infrastructure Plan: 2019-2025

2020-21 State Legislation

Key points needed within SB 4 and AB 14

- We believe Job #1 is to get the CASF funding extended and the bills should explicitly state as much.
- There should be clarification in the bills as to how much money will be secured by the proposed service fee.
- We support the use of CASF funds to secure bonds.
 - We support the use of CASF funds to match Federal monies for infrastructure development.