BROADBAND FOR ALL

Middle-Mile Advisory Committee Meeting

April 19, 2024

CALIFORNIA ALL

AGENDA

- **Executive Report Out**
  - Spending & Cross Departmental Coordination
- **Project Updates**
  - Installations, Network Map Update, & Stakeholder Communications - CDT
  - Preconstruction & Project Momentum – Caltrans
  - Hut & Electronics Procurement – GSN
  - Market Sounding Recommendation – CDT
  - Updates on Last Mile Programs – CPUC
- **Public Comment**

CALIFORNIA ALL | Broadband for All

Mark Monroe

Deputy Director

Middle-Mile Broadband Initiative

California Department of Technology

EXECUTIVE REPORT

Current MMBI Network Funding Level: $3.87 billion

Cost Components	**Current Plan for $3.87 Billion Base Budget**		
MMBI Cost Components (dollars in millions)	miles	total cost	avg cost/mile
RFI2 Miles (shared cost of lease, joint-build)	6,534	$ 1,848	$ 0.283
Caltrans Constructed Miles	1,832	$ 1,174	$ 0.641
Materials, Admin., Contingency, etc.	na	$ 851	na
Total	**8,366**	**$ 3,873**	**$ 0.463**

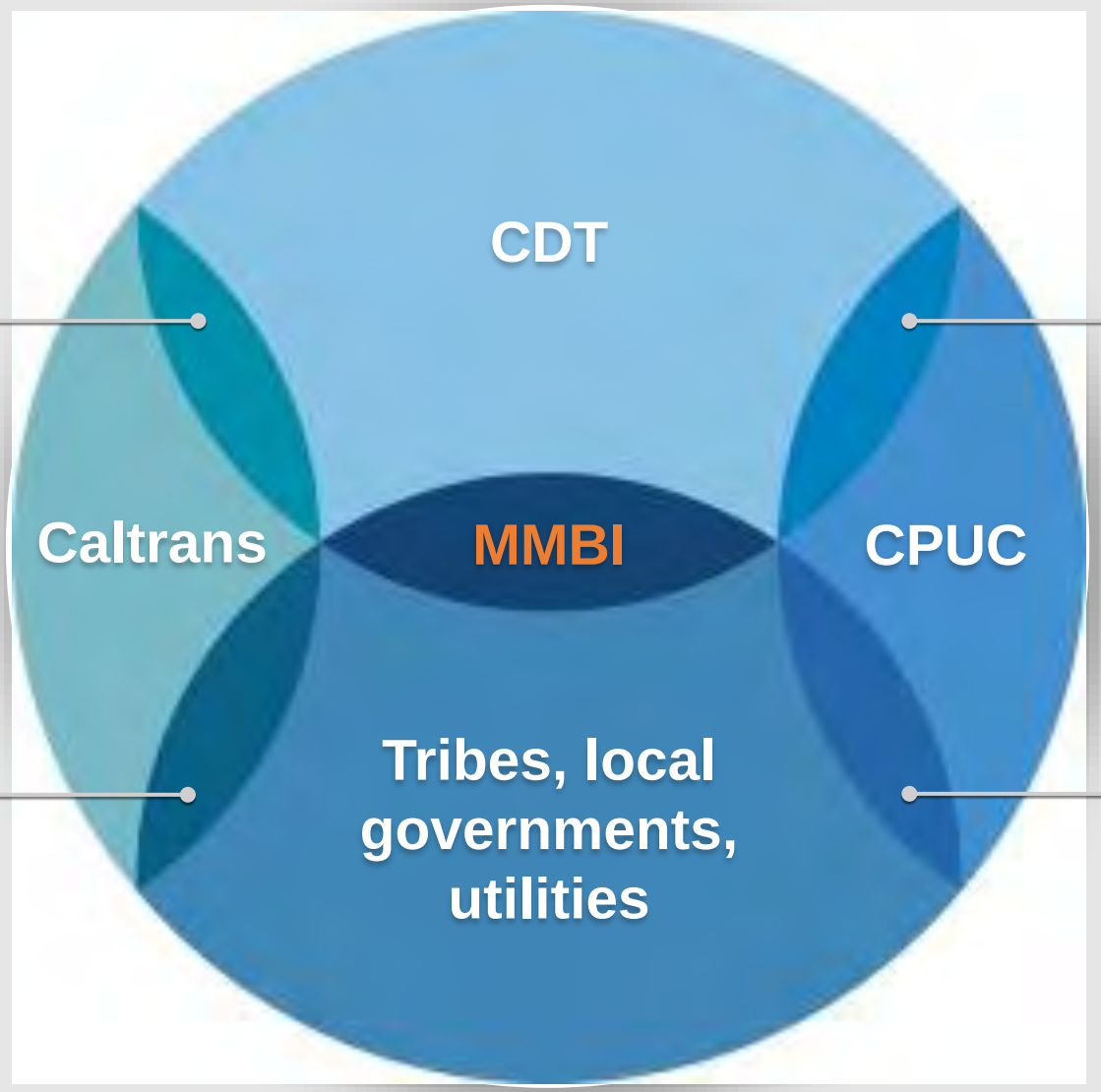
Middle-Mile Broadband Initiative

A Unique Partnership

Middle-Mile Broadband Initiative: *Cross-Departmental Coordination*

Coordination on the state-built segments

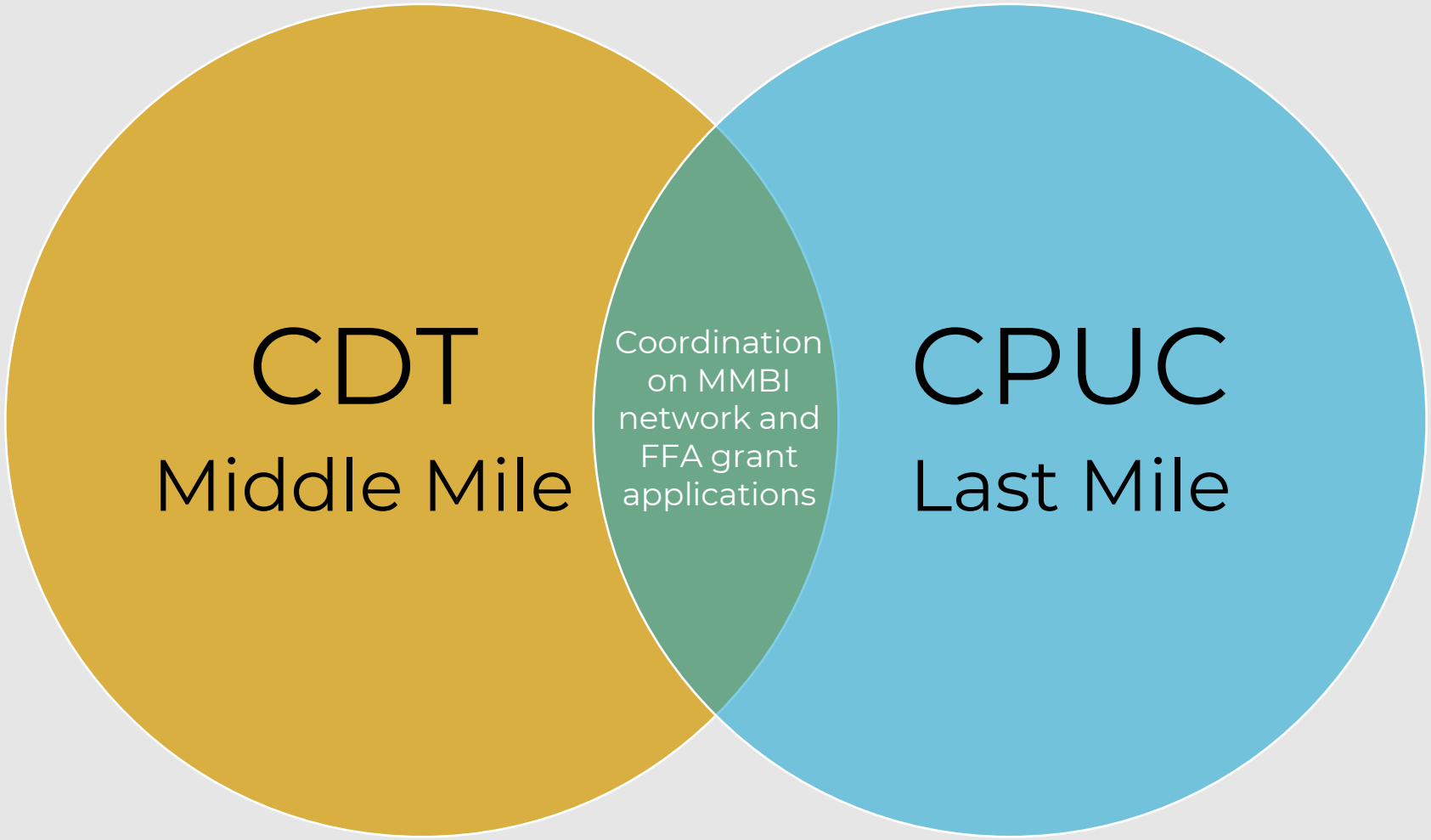
Coordination on permitting and right of way



Coordination on MMBI network and FFA grant applications

Local governments, stakeholder, ISP grantmaking

Middle-Mile Broadband Initiative: Cross-Departmental Coordination



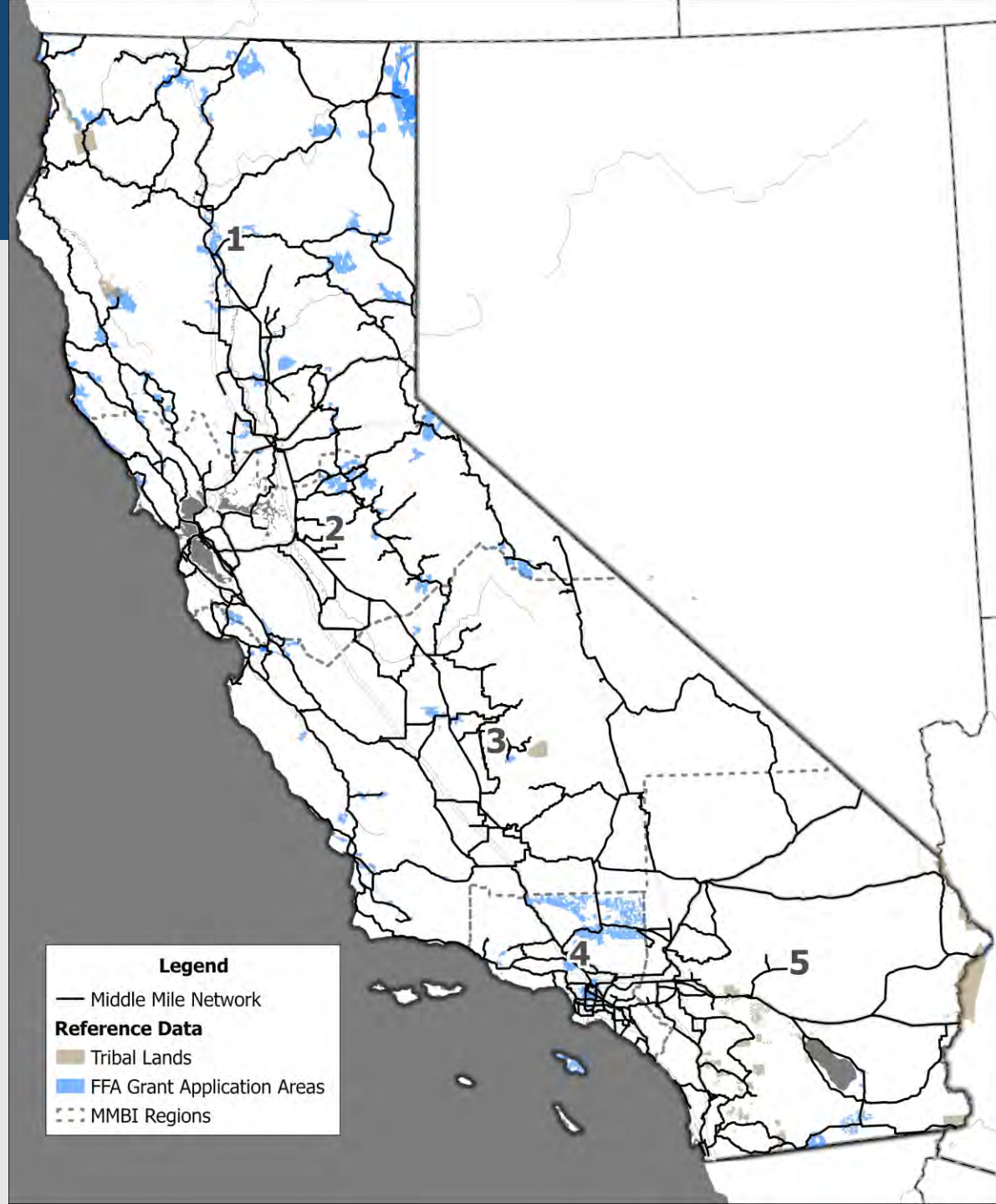
Together ensuring optimization of the state's once in a generation investment in broadband for all.

EXECUTIVE REPORT

Federal Funding Account (FFA) Grants Applications

CALIFORNIA ALL Middle-Mile Broadband Initiative

Currently identified over 90 FFA Grant Applications indicating connection to MMBI.



PROJECT UPDATES

Request for Innovative Ideas (RFI^2) - Round 2

Over 50 proposals received

Initial Reviews

Feb 2024:
Initial evaluations complete

Negotiations

Feb 2024-June 2024:
Negotiations in-progress

Contract Awards

April 2024 - July 2024:
Complete Negotiations and award contracts

PROJECT UPDATES

Joint Build Project Momentum

Arcadian

- Approx. 1,006 miles of fiber route
- Construction commenced in East LA in Q4 2023
- Est. completion by Q4 2026

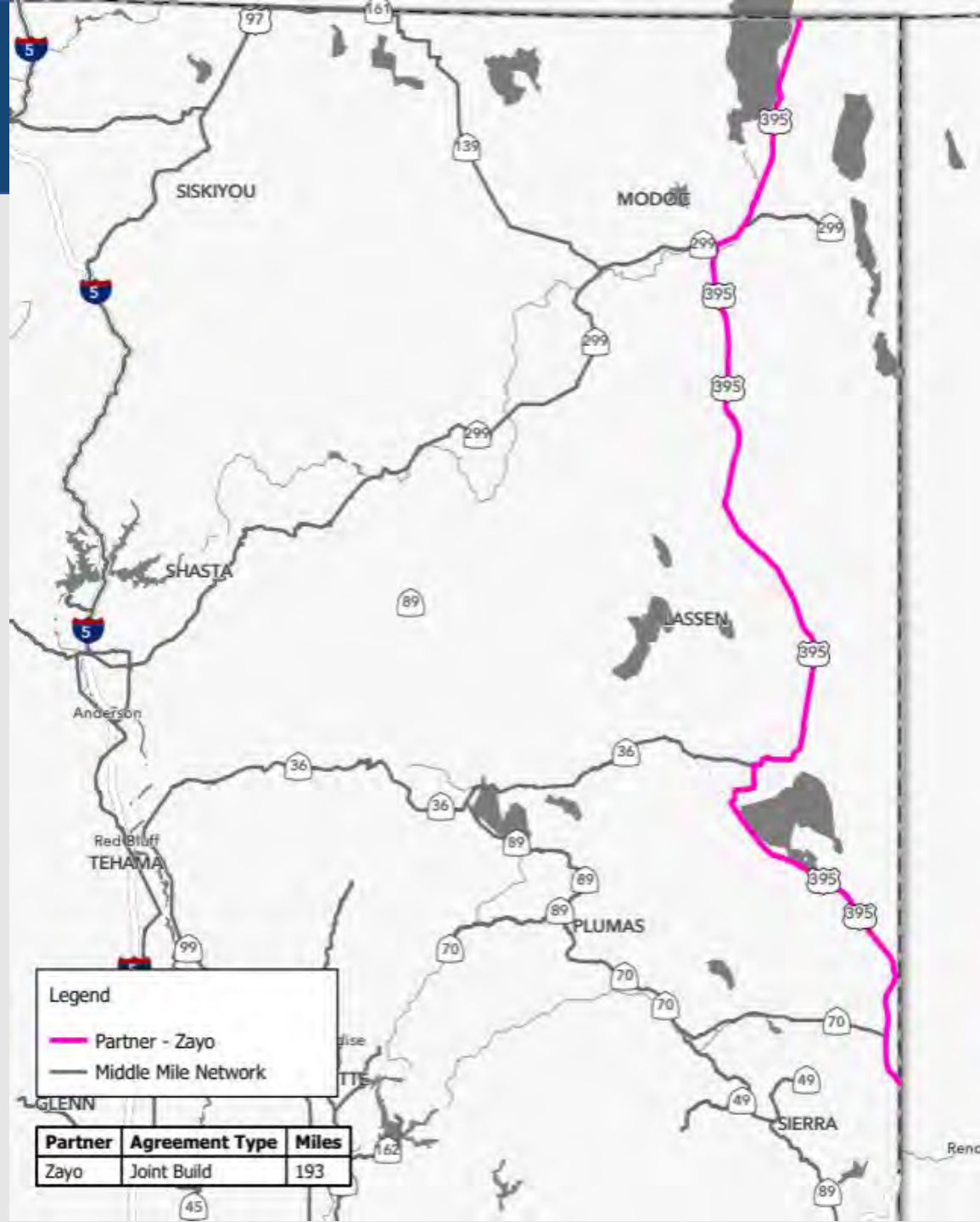
Partner	Agreement Type	Miles
Arcadian	Joint Build	1006

PROJECT UPDATES

Joint Build Project Momentum

Zayo

- Approx. 193 miles in Northern California
- Construction commenced in Q1 2024
- Est. construction completion by Q4 2024



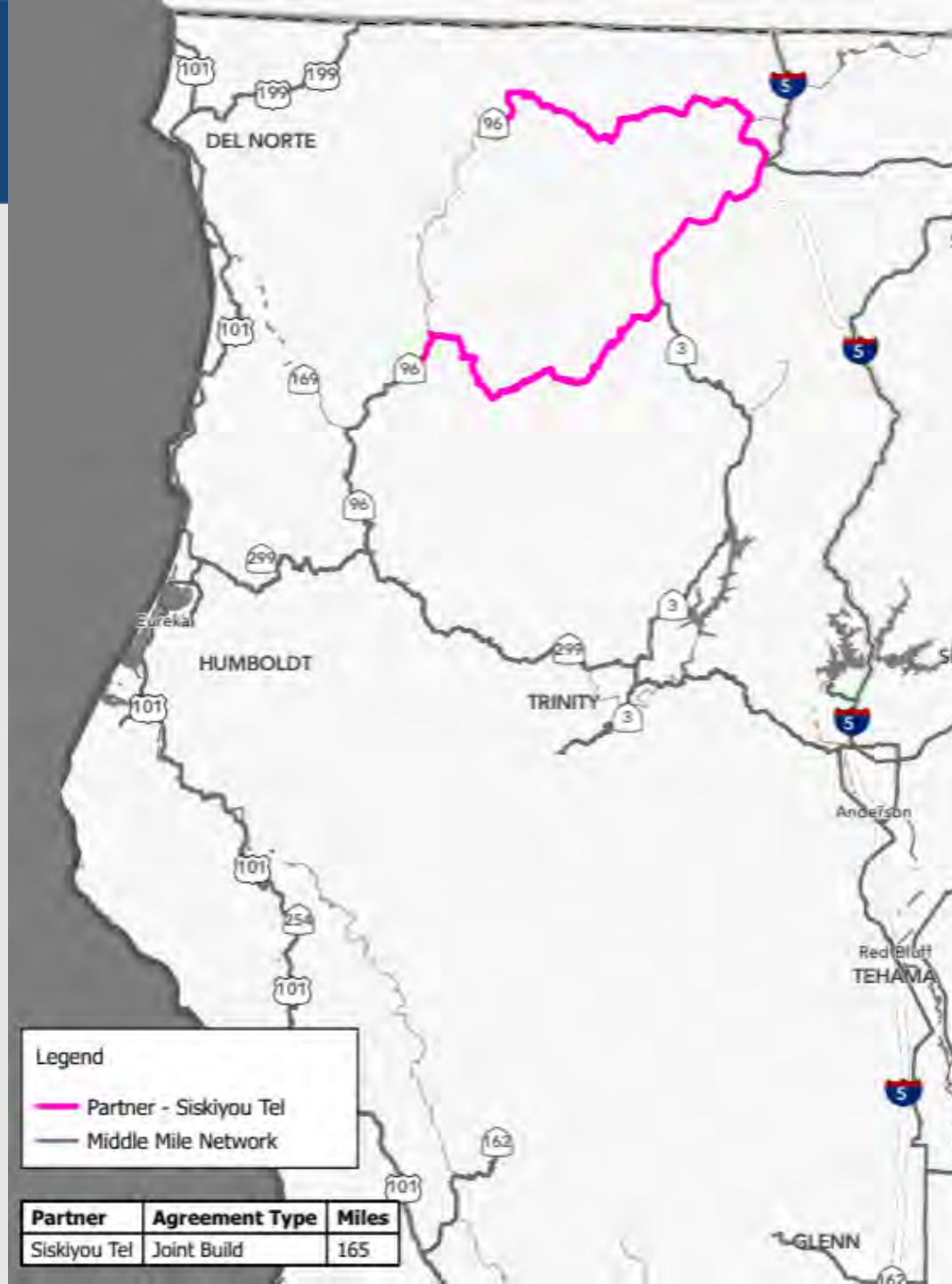
Partner	Agreement Type	Miles
Zayo	Joint Build	193

PROJECT UPDATES

Joint Build Project Momentum

Siskiyou Tel

- Approx. 165 miles in Northern CA
- Engineering 33% complete
- Construction kickoff in Q4 2024



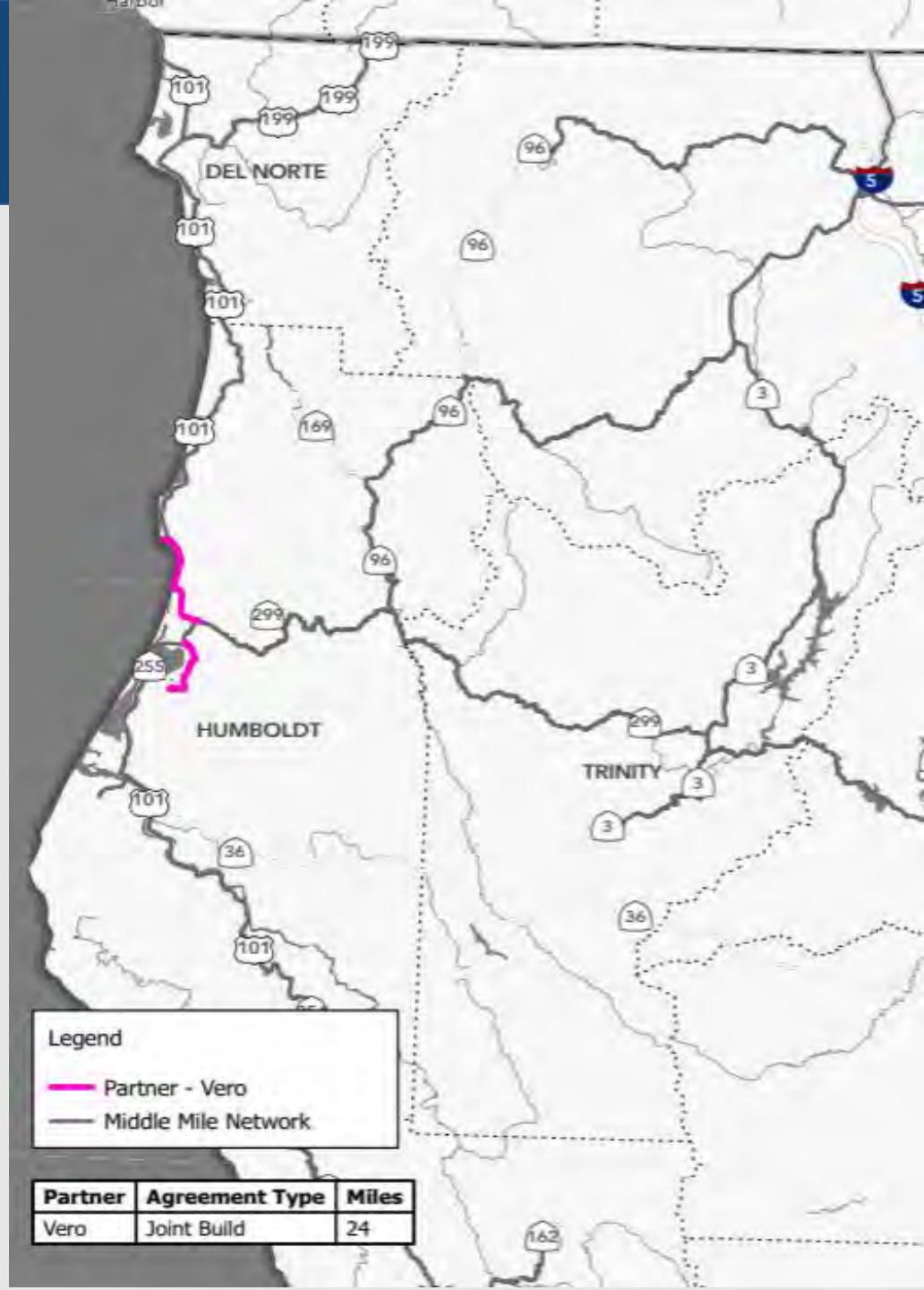
Partner	Agreement Type	Miles
Siskiyou Tel	Joint Build	165

PROJECT UPDATES

Joint Build Project Momentum

Vero

- Approx. 24 miles along the Northern CA Coast
- Completed construction on 9.5 miles in 2023
- Engineering 100% complete on 14.5-mile Trinidad Spur
- Est. construction completion by Q3 2025

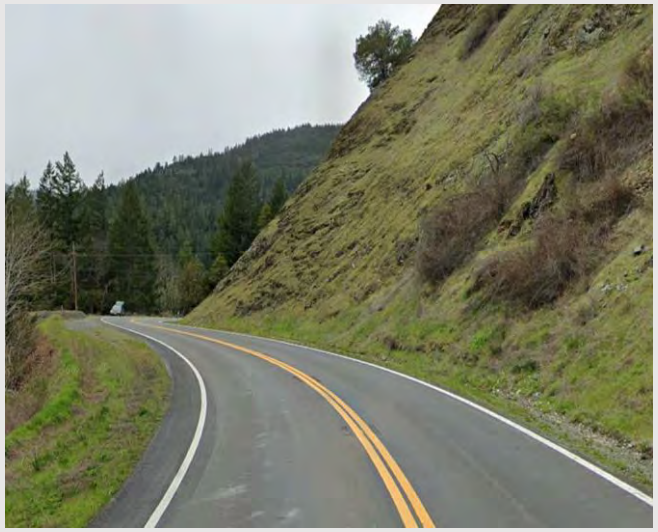


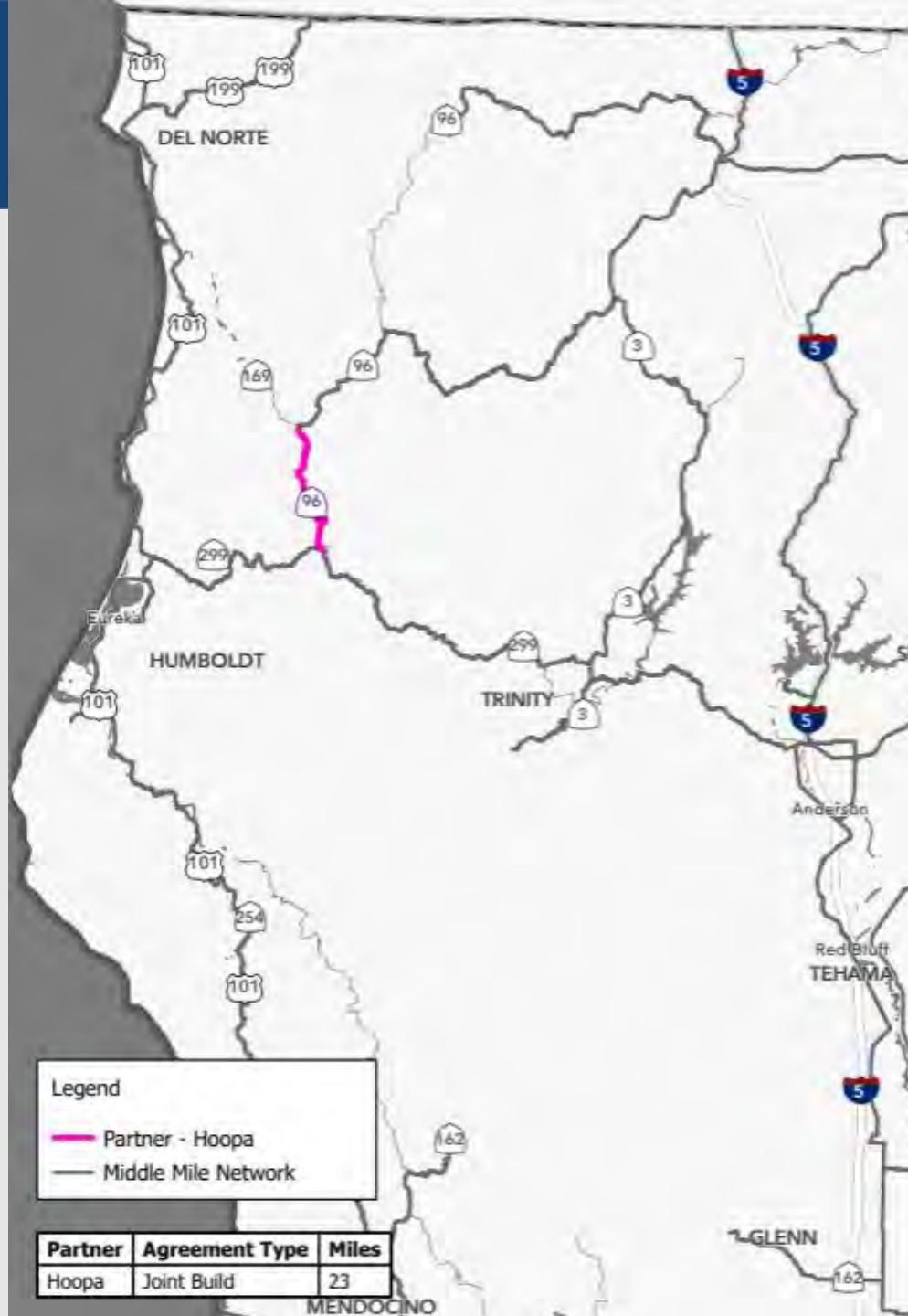
PROJECT UPDATES

Joint Build Project Momentum

Hoopa Valley

- Approx. 23 Miles on tribal land
- Est. Design & Engineering completion by Q2 2024
- Construction Kickoff in Q2 2025





PROJECT UPDATES

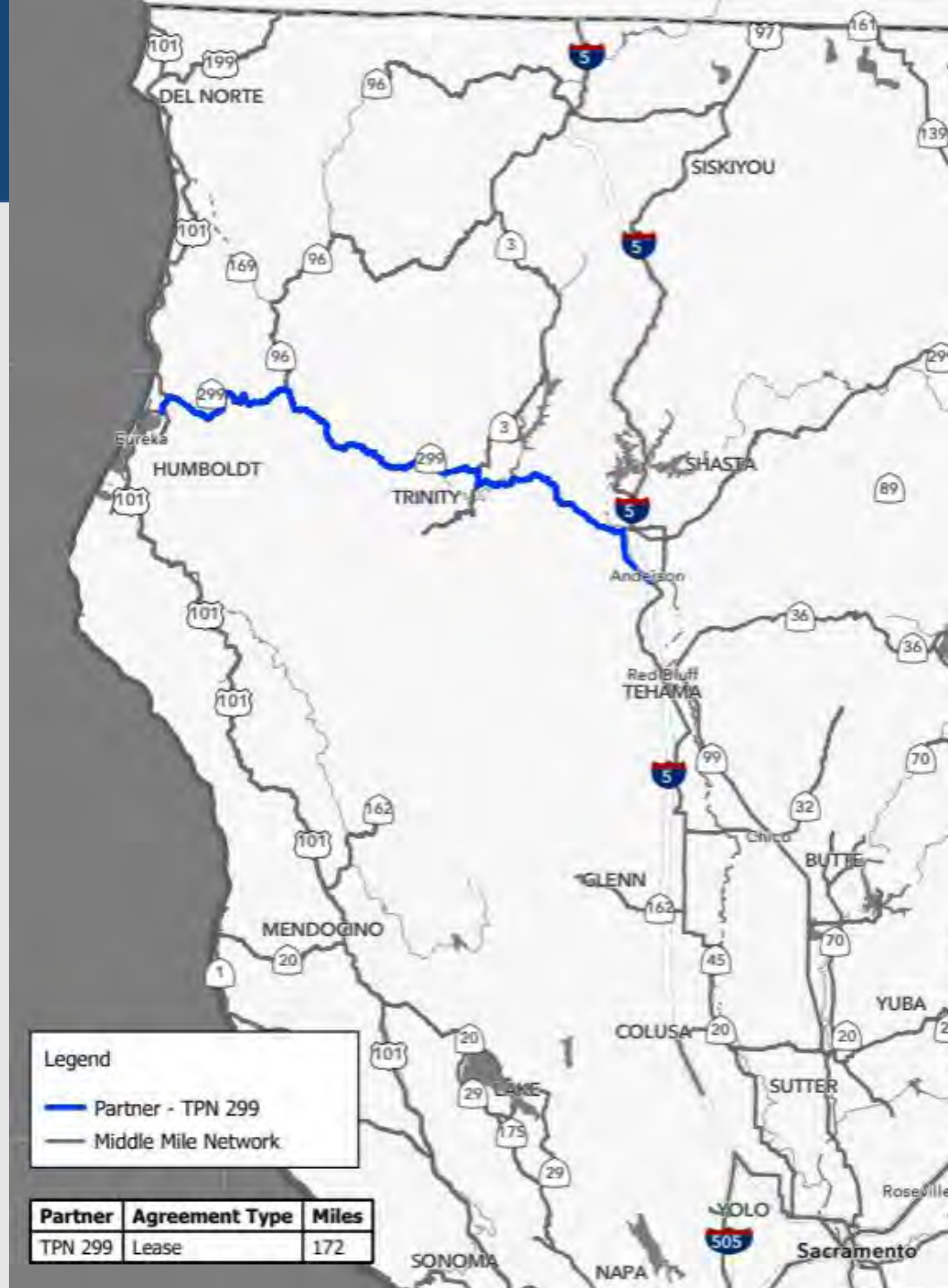
Joint Build Project Momentum

TPN-299

- 172 Miles of Fiber Lease
- Construction 60% complete
- Est. Construction completion by Q4 2024
- Adjacent to Tribal Lands:

Redding Rancheria

BLUE LAKE RANCHERIA
A Federally Recognized Tribe



Partner	Agreement Type	Miles
TPN 299	Lease	172

PROJECT UPDATES

Joint Build Project Momentum

Boldyn

- Approximately 81 Miles of Fiber Lease in Bay Area
- 28% of Construction Completed
- Est. construction completion Q1 2025

PROJECT UPDATES

Joint Build Project Momentum

CVIN

- Approx. 2,522 Miles of Fiber Lease
- Engineering: Approximately 15% complete
- Est. construction completion by Q4 2026

PROJECT UPDATES

Joint Build Project Momentum

Lumen

- Approx. 1,896 miles leased and joint build fiber route
- Construction commenced Q1 2024

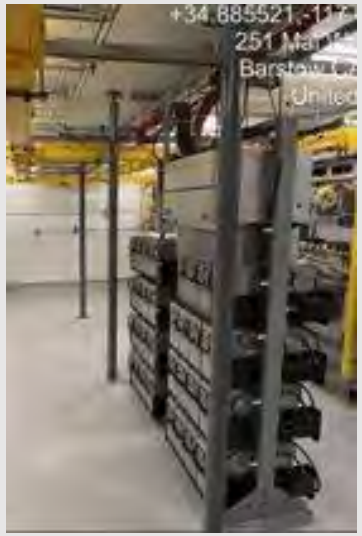
Partner	Agreement Type	Miles
Lumen (Lease)	Lease	710
Lumen (Joint Build)	Joint Build	1186

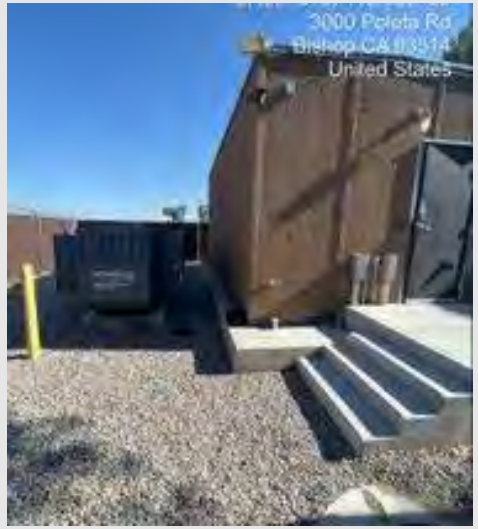
PROJECT UPDATES

Joint Build Project Momentum

Digital 395

- Approx. 435 Miles of Existing Fiber including 11 huts along US-395 Corridor
- Purchasing from California Broadband Cooperative (CBC)
- On track to finalize purchase by Q3 2024





Partner	Agreement Type	Miles
Digital 395	Purchase	435

PROJECT UPDATE

Government to Government Engagements

In Design and Engineering Stage

- Hoopa Valley
- Ventura County
- YTel
- City of Los Angeles Bureau of Street Lighting
- City of Fort Bragg
- Coyote Valley Band of Pomo Indians

In Negotiations

- City of Vacaville
- Karuk Tribe
- Pinoleville Pomo Nation

Hang Liang

Geospatial Engineer

Middle-Mile Broadband Initiative

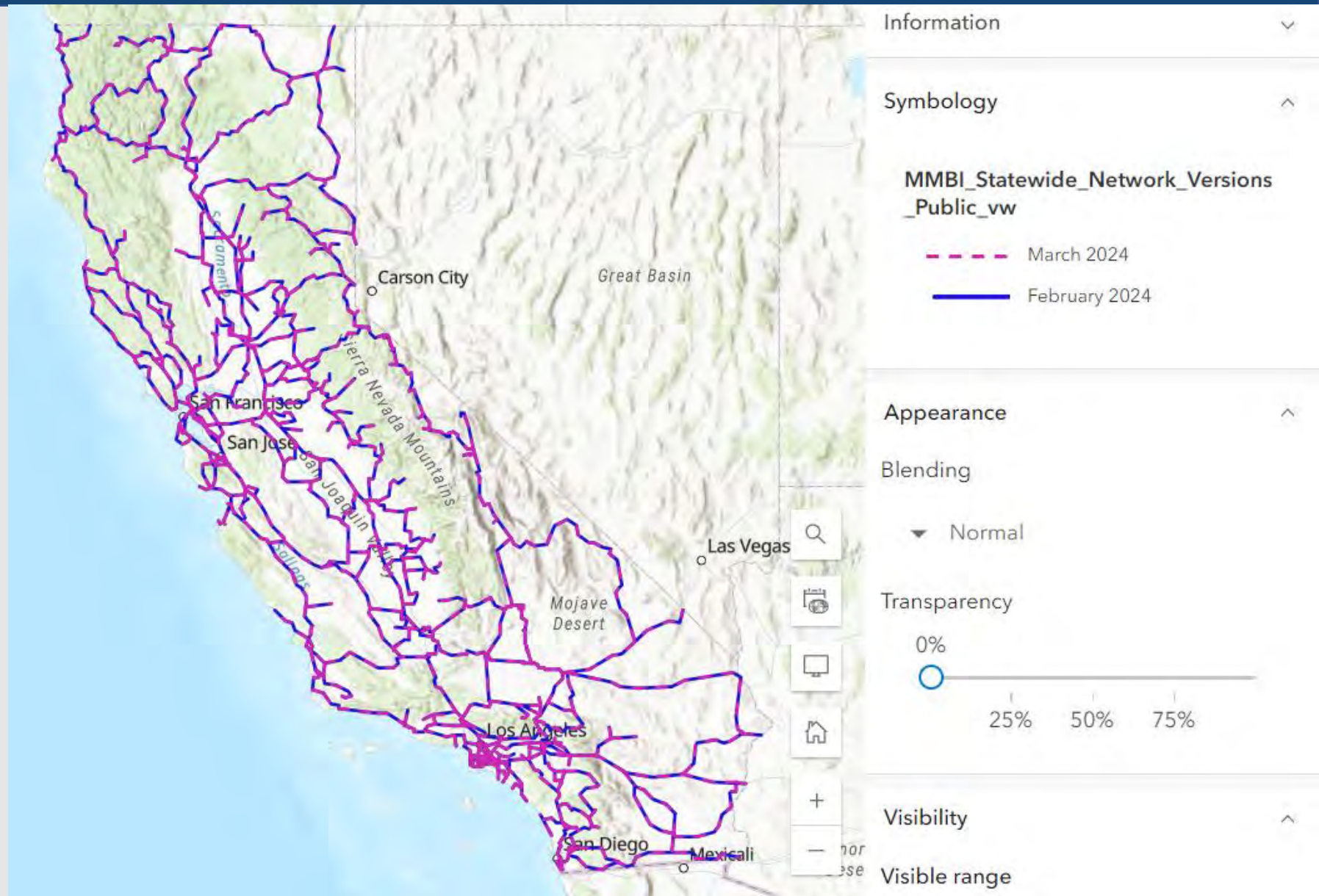
California Department of Technology

WEBSITE UPDATE

Network Version Data

<u>Interactive</u>

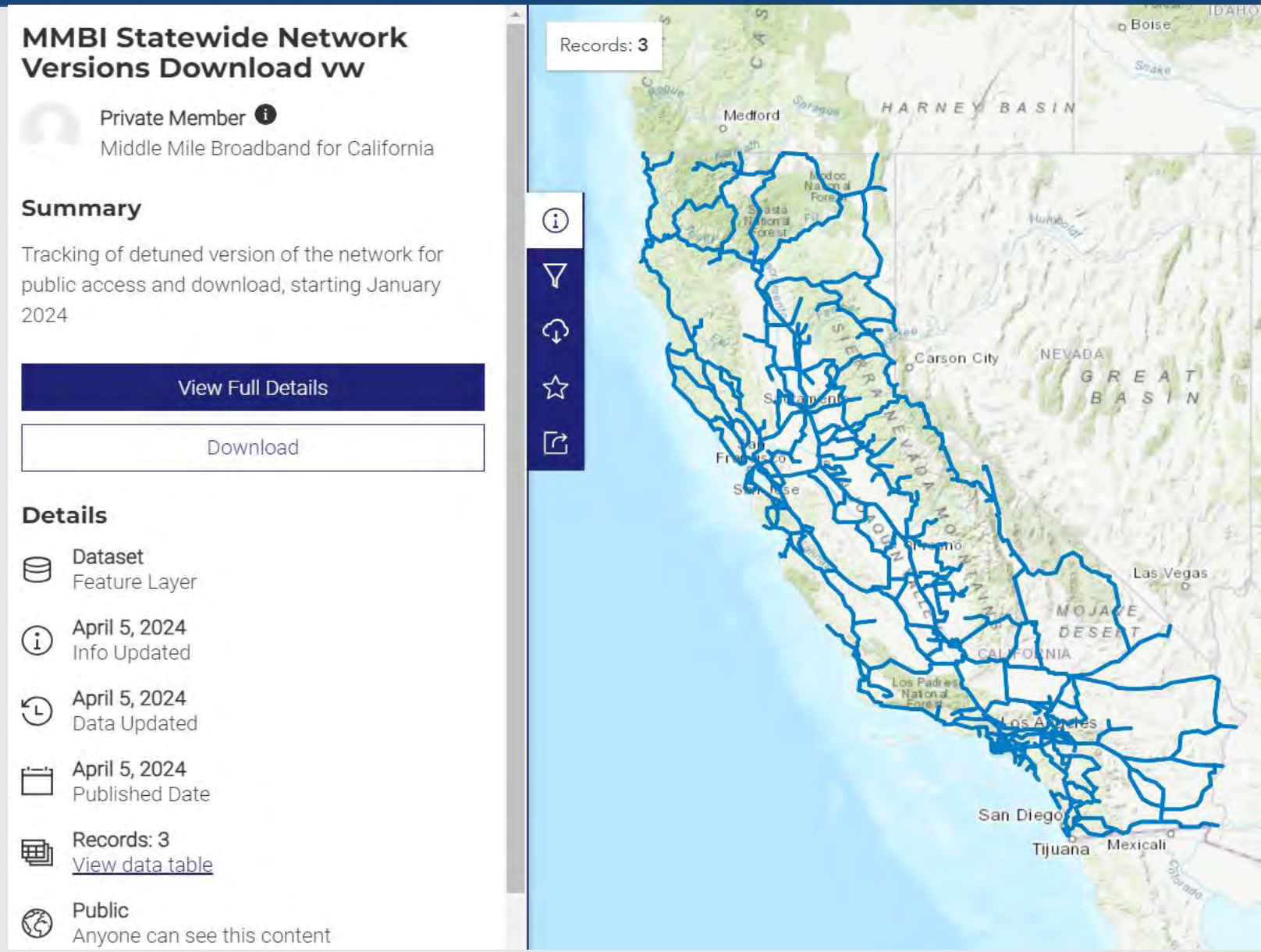
Easy for comparison of current and previous version release of the network



WEBSITE UPDATE

Network Version Data

Downloadable Network design history since January 2024



WEBSITE UPDATE

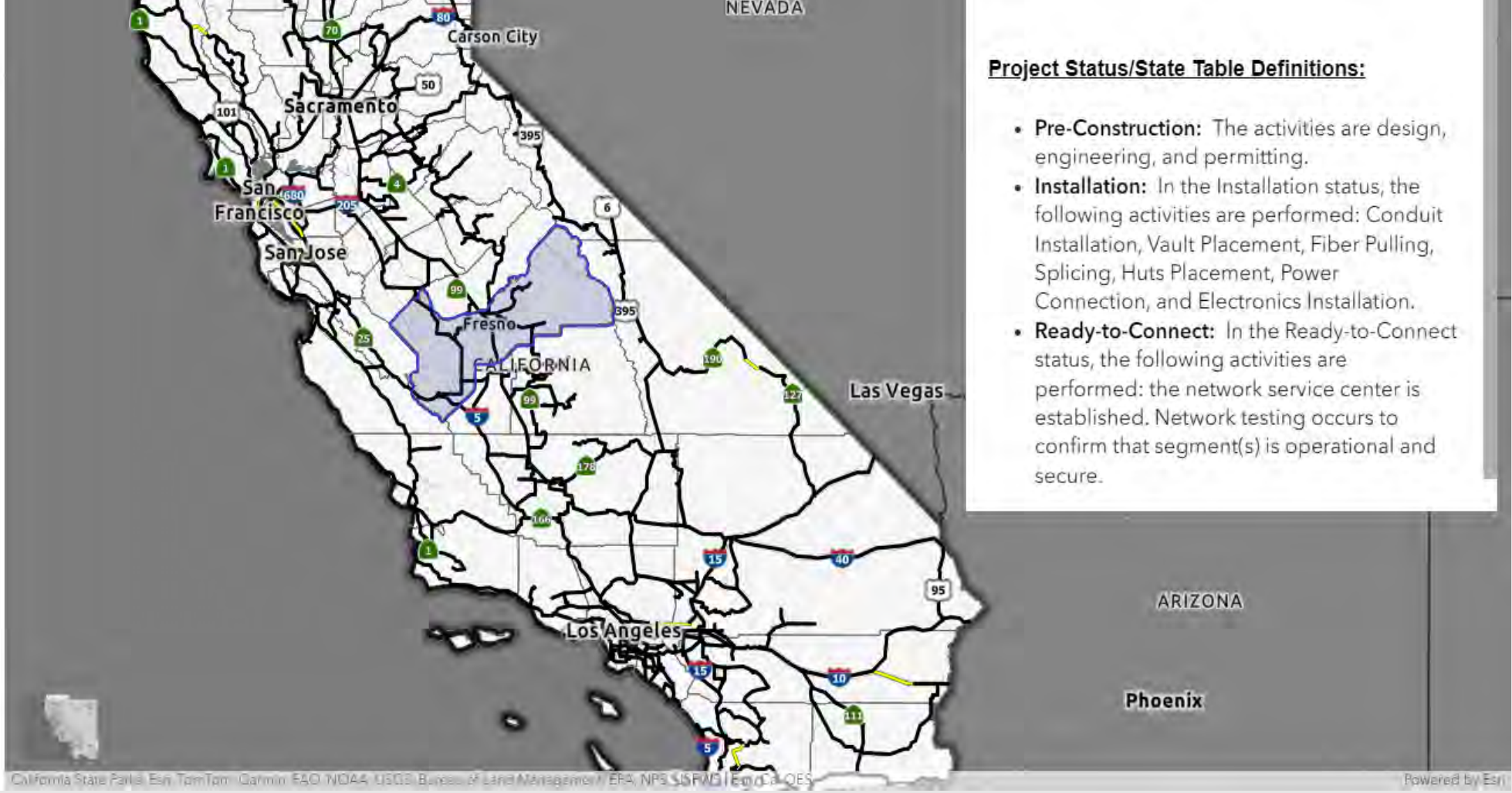
CDT Launches Project Status Map

Installation

Ready-to-Connect

County Boundaries

Help ?



Project Status/State Table Definitions:

- **Pre-Construction:** The activities are design, engineering, and permitting.
- **Installation:** In the Installation status, the following activities are performed: Conduit Installation, Vault Placement, Fiber Pulling, Splicing, Huts Placement, Power Connection, and Electronics Installation.
- **Ready-to-Connect:** In the Ready-to-Connect status, the following activities are performed: the network service center is established. Network testing occurs to confirm that segment(s) is operational and secure.

120+

Stakeholder Engagements since Jan 2024

Monica Hernández

Deputy Director

Communications & Stakeholder Relations

California Department of Technology

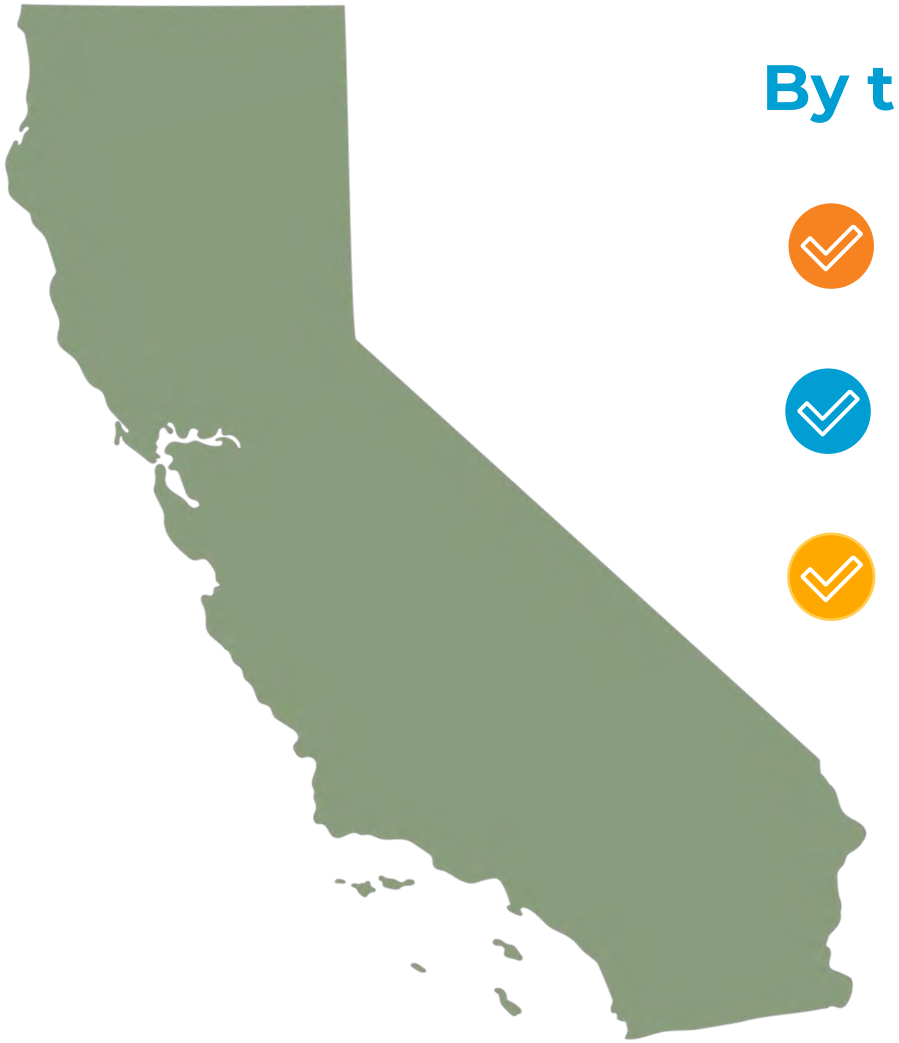
STAKEHOLDER ENGAGEMENT

Objective:

Increase transparency and improve communication for stakeholders within the Middle-Mile Broadband Initiative.

PROJECT UPDATE

Stakeholder Engagement



By the numbers:

- **65+** Invites
- **56** Registrations
- **44** Attendees

PROJECT UPDATE

Stakeholder Engagement Meeting Summary & Agenda

- MMBI Development Summary
- Joint builds, Lease, and Purchase Update
- Caltrans Preconstruction Update
- MMBI Interactive Map Update
- Request for Innovative Ideas (RFI^2) Update
- MMBI Market Sounding Update
- Statewide Digital Equity Plan Update

PROJECT UPDATE

Meeting Evaluation Snapshot - *Totals exclude "neutral" and do not add to 100*

	Strongly Agree/Agree	Strongly Disagree/Disagree
This meeting was well organized.	60%	20%
The length of the meeting was appropriate to get through the material.	60%	13%
I had an opportunity to express my interests/concerns on the items presented.	53%	13%
I have a better understanding of the status of MMBI after this meeting.	40%	53%

Jeff Wiley

Assistant Deputy Director

Middle-Mile Broadband Initiative

California Department of Transportation

PROJECT DELIVERY

Path to Delivery

Preconstruction Progress

Preconstruction Delivery Plan

Project Momentum

PROJECT DELIVERY

Advancing Preconstruction

Environmental, Permitting and Design progress

April 2024

Completed Project Tasks **In Progress Project Tasks**

January 2024

Completed Project Tasks **In Progress Project Tasks**

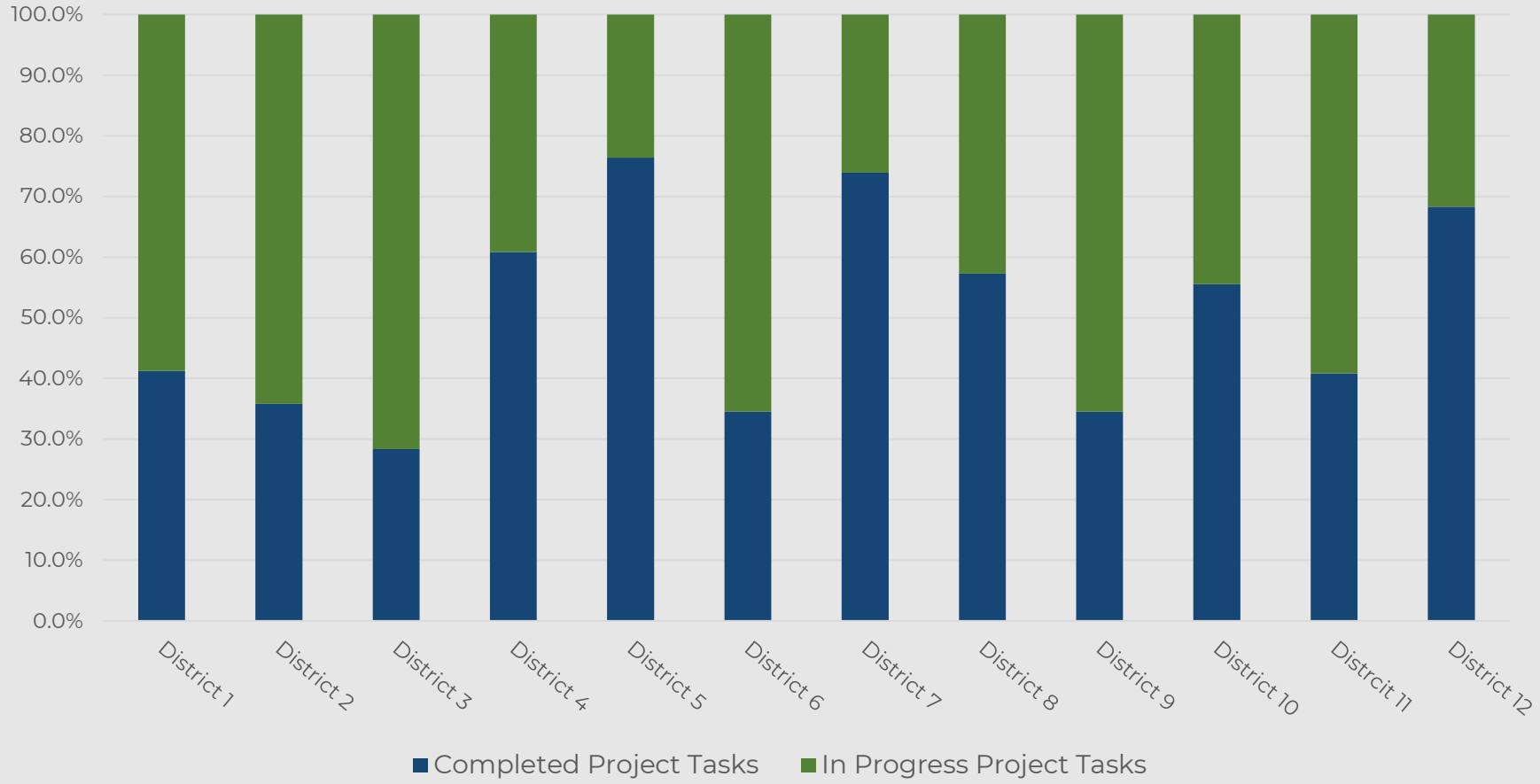
*Data as of 2 April 2024

PROJECT DELIVERY

Advancing Preconstruction: Progress by District

Environmental, Permitting and Design progress

April 2024



PROJECT UPDATE

2024 Preconstruction Delivery

2024	Preconstruction complete by March	April – June	July – September	October – December
Region 1	25 miles	100 miles	275 miles	800 miles
Region 2	0 miles	100 miles	75 miles	400 miles
Region 3	40 miles	50 miles	40 miles	625 miles
Region 4	70 miles	100 miles	80 miles	150 miles
Region 5	40 miles	125 miles	530 miles	375 miles
Total	**175 miles**	**475 miles**	**1,000 miles**	**2,350 miles**

*Data as of 26 March 2024
Numbers have been rounded

PROJECT UPDATE

2024 Preconstruction Delivery

Region 1
1,200 miles

Region 2
575 miles

Region 3
755 miles

Region 4
400 miles

Region 5
1,070 miles

Total
4,000 miles

*Data as of 26 March 2024
Numbers have been rounded

PROJECT DELIVERY

Project Momentum

Erik Hunsinger

President & Chief Operating Officer

GoldenStateNet

MMBI OPERATIONS

Hut Updates

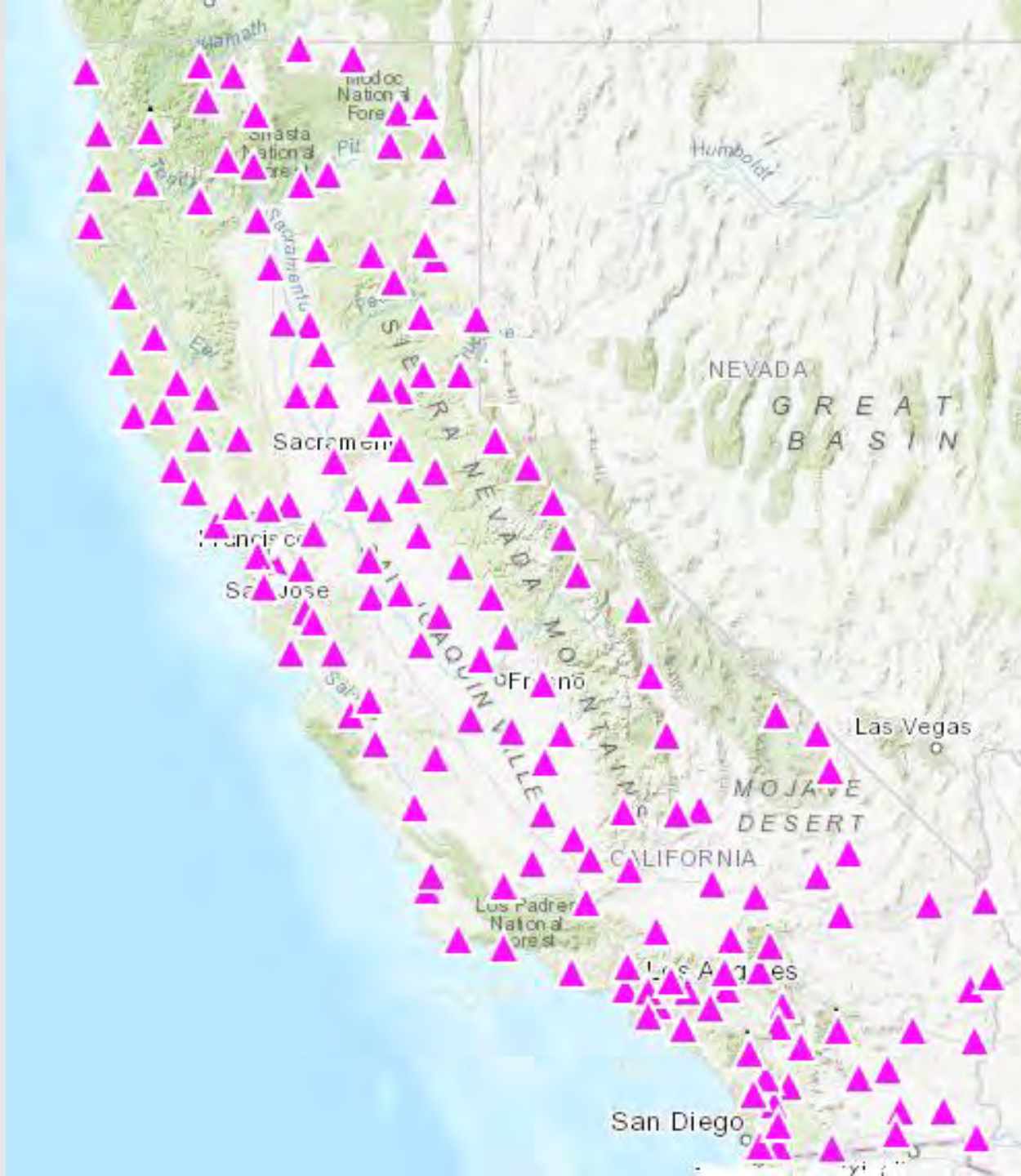
162 hut locations

13 core backbone locations

The core lit backbone is 400G

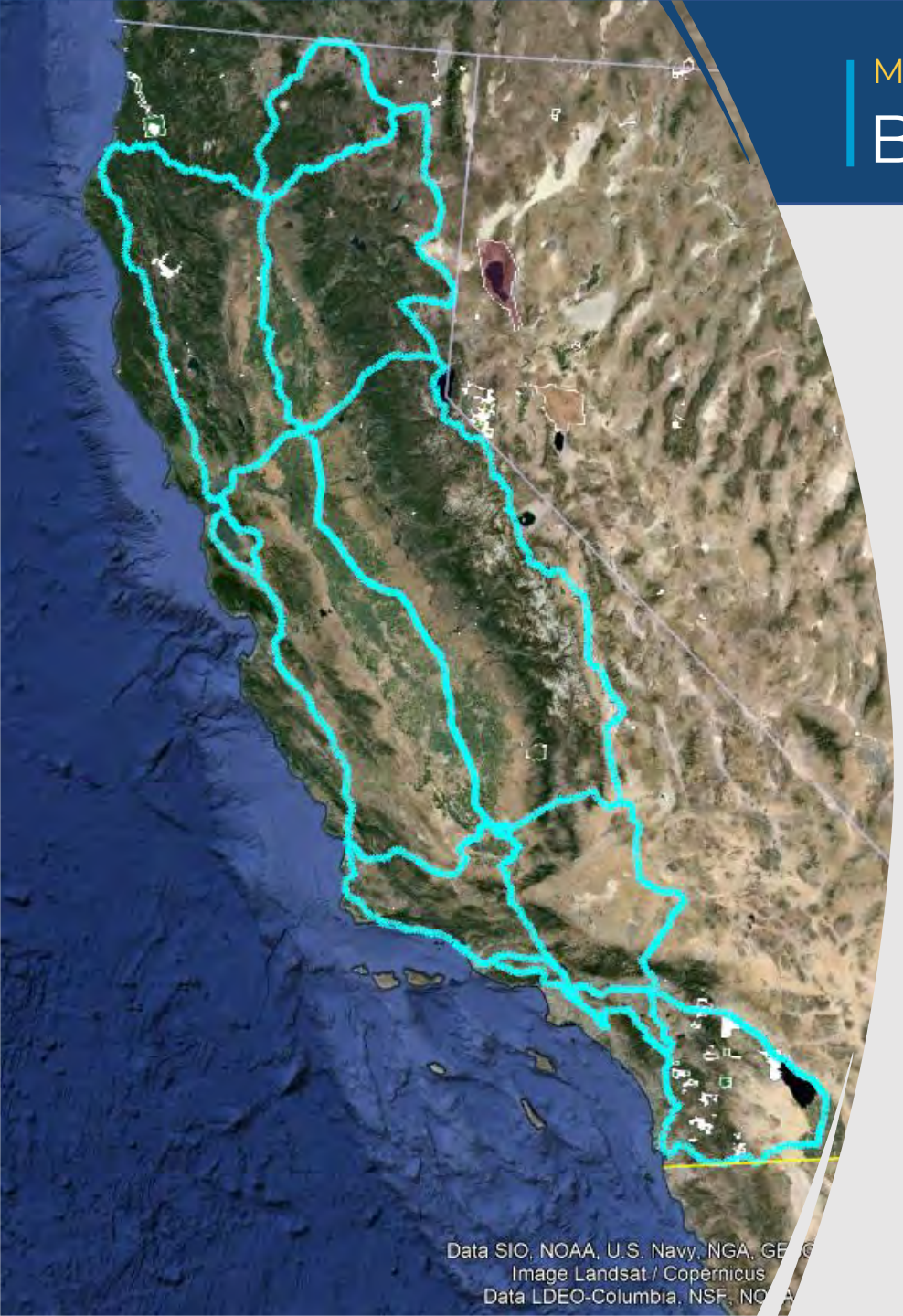
Smaller locations will be linked with 100G to the backbone

All huts support Internet, optical and colocation services



MMBI OPERATIONS

Backbone Core and Transit

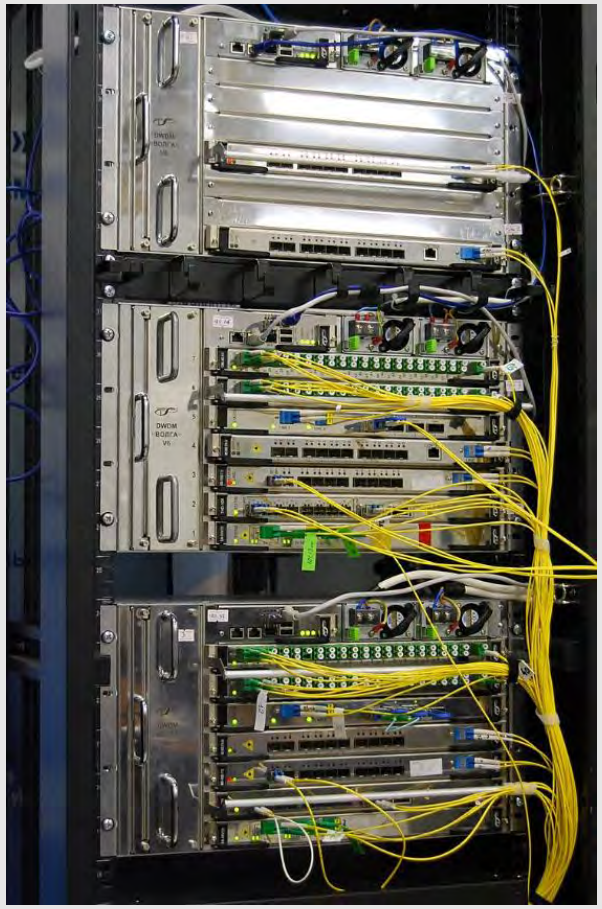


- Core telecom equipment consumes extra power.
- 13 huts are critical to the “core” backbone and essential to the overall functioning of the network.
- 29 core huts are “transit” nodes essential to the backbone function and connectivity.

MMBI OPERATIONS

Electronics

- The MMBN will provide a full suite of carrier-class network services and products.
- 32 terabits of capacity can be accessed across the network.
- Capabilities will include 10G, 100G and 400 Gbs waves on 40 channels.
- Provide customers with access to carrier-class products and services.



Ben Polsky

Business Manager, MMBI

California Department of Technology

BROADBAND FOR ALL

Market Sounding Report

CALIFORNIA ALL

Purpose and Methodology

Purpose:

Investigate the range of maintenance and operations strategies and financial structures adopted by networks across the country to inform MMBI's approach to a sustainable operations.

Methodology:

CDT conducted 25+ individual interviews with non-profit, public, and private network operators to analyze and solicit feedback on the following:

1. Network performance
2. Financial sustainability
3. Governance and public policy protections

MMBI MARKET SOUNDING

Findings

Market Sounding suggests a **well-structured operations partnership** can better achieve MMBI's policy goals, while reducing the state's risk and financial exposure.

Achieve material risk transfer
Through robust & enforceable contractual framework

Leverage private sector
Experience, capabilities & incentives

Minimize future expense obligations
From state funding

Use competition
To generate maximum public benefits

Build in protections
To counter potential for anti-competitive behavior

Proposed Approach

Proposed Approach:

CDT should initiate a competitive procurement to identify an experienced and well-qualified partner to assume responsibility for O&M through a long-term “Network Stewardship Agreement” as the Operations Third Party Administrator (TPA).

Next Steps:

Initiate two-part procurement approach:

1 **Request for Qualifications (RFP Part 1)**

Evaluation criteria: select 3-4 proposers based on capabilities and experience.

2 **Request for Proposals (RFP Part 2)**

Evaluation criteria: committed policy safeguards, proven approach to O&M, financial capacity, and revenue sharing commitments.

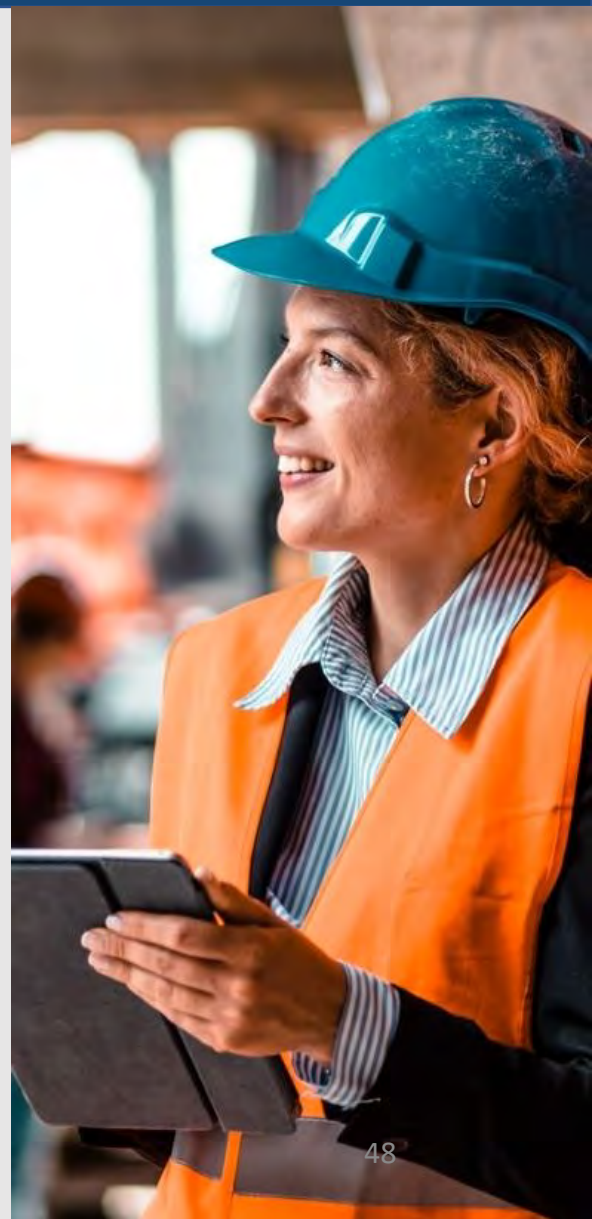
Overview and Goals

Launching MMBI Customer Sounding: CDT to ensure robust coordination with last mile efforts as part of the customer sounding program

CDT will run operations TPA procurement in parallel with MMBI customer sounding to identify potential users of MMBI including **local public sector leaders** and **last-mile ISPs**.

Goals of **Customer Sounding**:

- Build trust in the value of MMBN to last-mile users
- Identify key customers who will procure services from MMBN
- Source input about operations governance of MMBN



Maria Ellis

Deputy Director, Broadband

California Public Utilities Commission

MMBI SUMMARY

Last Mile Broadband Programs and Investments Overview

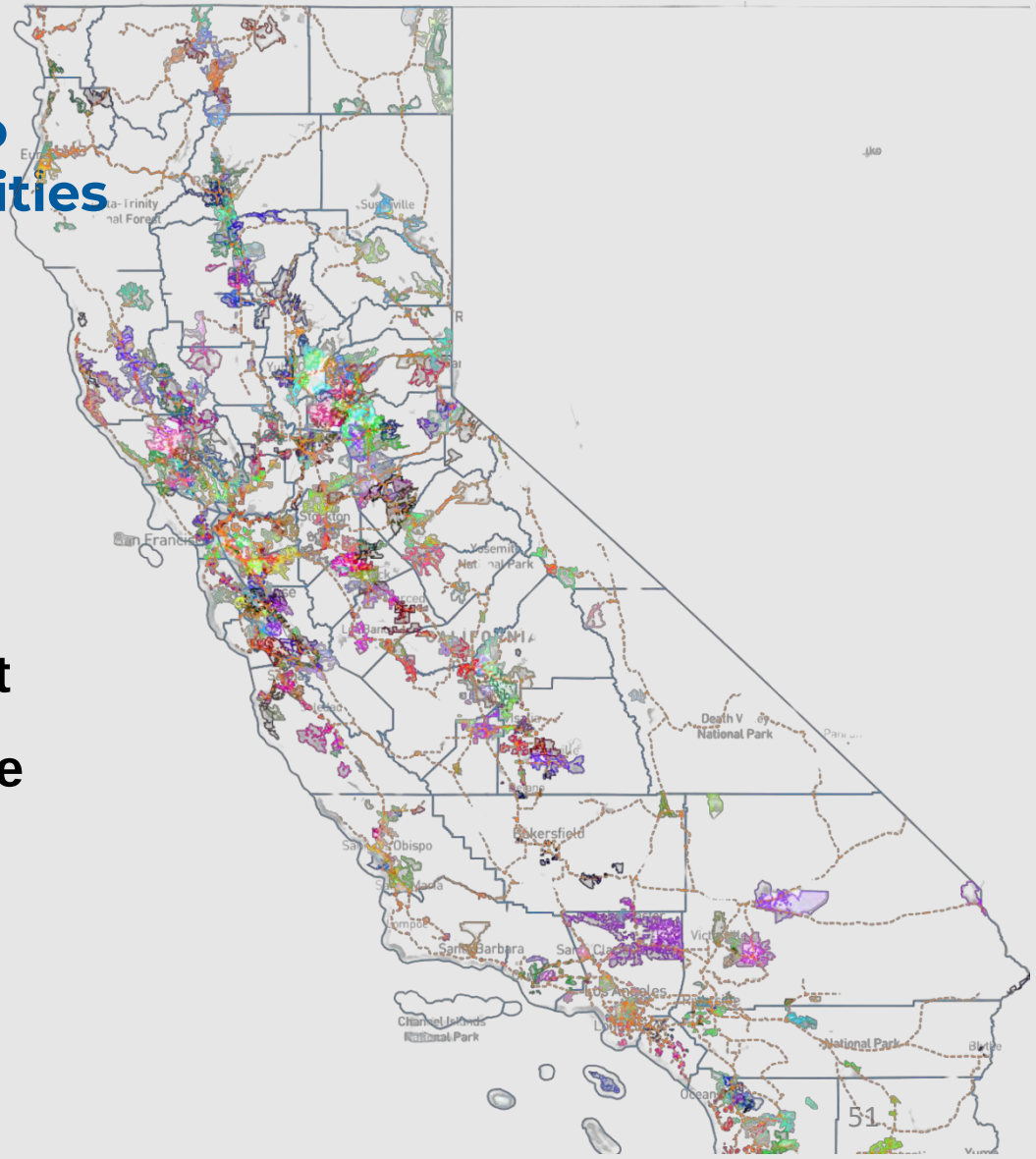
	Broadband Equity Access and Deployment (BEAD)	California Advanced Services Fund (CASF)	Loan Loss Reserve Fund (LLR)	Last Mile Federal Funding Account (FFA)
Amount	~$1.86 billion	$150 million/year (pending BCP approval)	$750 million (proposed budget = $500 million	~$2 billion
Summary	Funds for planning, infrastructure and adoption starting in 2024.	Funds broadband infrastructure and adoption in low-income housing, Tribal communities, and unserved areas.	Provides collateral to local government, Tribes, and nonprofits to finance their own broadband Infrastructure.	Funds for last-mile broadband infrastructure projects in every county.
What's Next?	After NTIA approves Initial Proposal, CPUC conducts challenge process, solicits applications, and selects subgrantees.	Expanded Public Housing and Tribal Tech Assistance programs March 2024. Applications accepted in 2024 for various accounts.	The CPUC is preparing to accept applications beginning in March 2024.	The CPUC is evaluating nearly 500 grant applications received for every county in CA.

LAST-MILE UPDATE

Federal Funding Account Applications

~$2 Billion for Last Mile Infrastructure Projects to deliver reliable broadband to unserved communities

- For projects providing end-user service to unserved locations
- An application received for every county in the state
  - Application, Project Area, Objection, Applicant Responses to Objections are publicly available
  - Objection Process closed December 20, 2023



MMBI SUMMARY

Interplay of Last Mile Federal Funding Account Applications & Middle-Mile Broadband Initiative

- **Last Mile Federal Funding Account provides points for applications that interconnect with the Middle-Mile Broadband Initiative where reasonable and feasible.**
  - **Applications not within a reasonable proximity of the Middle-Mile Broadband Initiative can get points**
  - **Applications may be awarded that do not connect to the Middle-Mile Broadband Initiative.**
- **As part of the Middle-Mile Broadband Initiative partnership the California Department of Technology and California Public Utilities Commission and coordinate and collaborate on implementation.**

Interplay of Last Mile Federal Funding Account Applications & Middle-Mile Broadband Initiative Cont.

Based on current data from the most recent update by last mile Federal Funding Account applicants proposing to connect to the Middle-Mile Broadband Initiative:*

- **Number of applications and entities: 107 applications from 48 entities**
- **Number of unserved locations proposed to be provided service in the applications**
- **Total amount of funding requested in the applications**

***As of March 2024 raw/applicant submitted numbers. Subject to update. Contingent on holistic application review and award.**

MMBI SUMMARY

Loan Loss Reserve Program

Overview

Provides collateral so that local governments, Tribes, and non-profits can receive more favorable borrowing rates and terms for bonds, loans, and letter of credit for the deployment of publicly owned broadband infrastructure.

Update

Updates on applications during Loan Loss Reserve first application window.

Timeline

- **First Application Window Closed April 9, 2024**
- **Program info, webinars, fact sheets**
- **Next window planned after July 2024**
- **First awards targeted 2Q-3Q 2024**

MMBI SUMMARY

California Advanced Services Fund

Adoption: Grants for digital literacy and broadband access projects

January 2024 cycle applications | 61 projects | $7.4 million

Next Application Deadline: July 1, 2024

Public Housing: Grants to build networks offering free service to low income communities

January 2024 cycle applications | 21 projects | $1.3 million

Expanded eligibility for non-publicly supported housing developments and project costs in Decision 24-03-041

Next Application Deadline: July 1, 2024

Infrastructure: Grants to subsidize the cost of middle and last mile infrastructure to expand high quality communications service throughout California.

3 projects approved | $7.2 million

Tribal Technical Assistance: Grants to assist California Tribes in developing market studies, feasibilities studies, and/or business plans

Expanded program and increased support for market studies, feasibility studies, and business plans in Decision 24-03-041

April 1, 2024 cycle | 3 Tribal applications | $750,000

Next Application Deadline July 1, 2024

LAST-MILE UPDATE

Broadband Equity, Access, and Deployment (BEAD) Update

In June 2023, $1.86 billion was allocated to California to deploy last-mile service to unserved & underserved

Open BEAD Rulemaking (R.23-02-016) for design and implementation of the program. Milestones include:

- **2023 Engagement With CDT**
- **Five Year Action Plan accepted by NTIA**
- **Submission Initial Proposal Volumes 1 & 2 to NTIA**
  - Approval for Initial Proposal Volume 1 received April 4, 2024
  - Initial Proposal Volume 2 currently under review by NTIA
- **All activities subject to NTIA review and approval**
- **Commission must take action on program design and rules**
- **More information and subscribe to updates**
- **Tier E License Application-Challenge Process**

MMBI SUMMARY

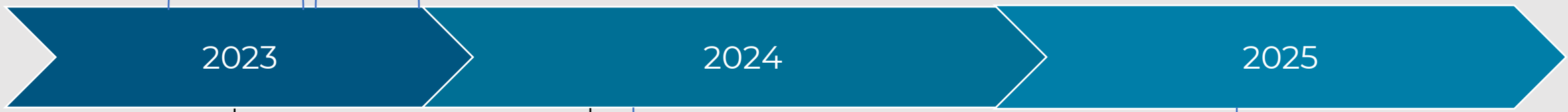
BEAD Challenge Process Updates

- **As directed by NTIA, the CPUC will conduct a public process to refine a map of served, underserved, and unserved locations (or location eligible for funding) prepared by NTIA**
  - **The process will allow governments (local, regional), Tribal nations, nonprofits, and ISPs to "challenge" the status of location (served/underserved/unserved)**
  - **The process is data driven and provides an opportunity for rebuttals**
  - **The CPUC will submit its determinations to NTIA who will make final determination on eligible locations**
- **On April 5, 2024, the CPUC issued a draft decision to adopt the approved Initial Proposal Volume 1. Comments due April 25, reply comments on April 30.**
- **Outreach activities will start with a webinar from 10:00a.m. to 11:30a.m on April 24, 2024 with an Introduction to the NTIA Model BEAD Challenge Process. Register here.**

Broadband Equity, Access, and Deployment (BEAD) Update

April-July 2023: Public Outreach throughout California (with CDT)

August-December 2023: Engagement and comment on Initial Proposal, submittal to NTIA for approval



August 2023
5-Year Action Plan to NTIA

April 2024
Volume 1 of Initial Proposal Approved

2024 & 2025
Volume 2 of Initial Proposal approval by NTIA, challenge process, solicit applications, and select subgrantees.

2025
Final Proposal due 365 days after Initial Proposal approval

As of 4/8/2024

Sign up: Broadband for All Newsletter

Public Comment Session

CALIFORNIA ALL Middle-Mile Broadband Initiative

Thank you!

Contact:
MiddleMile@state.ca.gov

CALIFORNIA ALL BROADBAND FOR ALL