



**BROADBAND  
FOR ALL**

# MMBI Regional Tribal Engagement Series

(Districts 1, 2, 3 & 4)

January 17, 2023





# AGENDA

- Welcome & Introduction from Leadership
- Broadband for All Overview
- MMBI Overview
  - Purpose
  - Network
- MMBI Project Delivery
  - Design Options
  - Strategies for Avoidance
- Environmental & Cultural Focus
  - Coordination & Tools for Communication
  - Project Level Consultations
- Last Mile Connections Overview
- Q&A + Final Discussion
  - Closing Remarks

# Welcome & Introductions



**Christina Snider**

Tribal Affairs Secretary  
Governor's Office of  
Tribal Affairs



**Liana Bailey-Crimmins**

State CIO and Director  
California Department  
of Technology



**Tony Tavares**

Director  
California Department  
of Transportation



**Rachel Peterson**

Executive Director  
California Public  
Utilities Commission



# Caltrans District Executives



**Richard Mullen**

Deputy District 1 Director  
Program/Project Management  
Caltrans

**David Moore**

District 2 Director  
Caltrans

**Amarjeet Benipal**

District 3 Director  
Caltrans

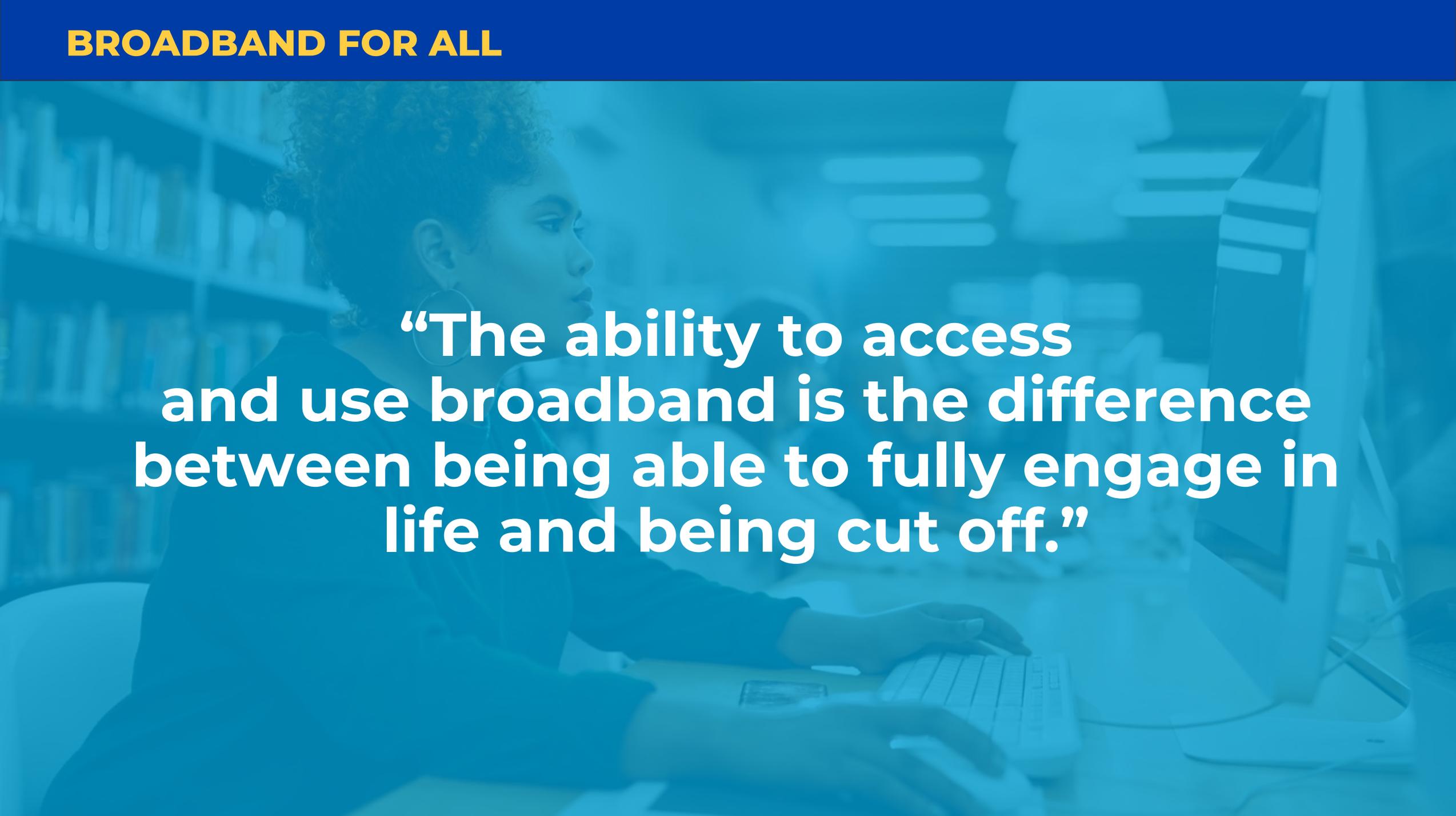
**Dina El-Tawansy**

District 4 Director  
Caltrans

## **Scott Adams**

**Deputy Director**

Broadband and Digital Literacy  
California Department of Technology

A woman with curly hair is sitting at a desk in a library, looking at a computer monitor. The background shows bookshelves filled with books. The image has a blue tint.

**“The ability to access  
and use broadband is the difference  
between being able to fully engage in  
life and being cut off.”**

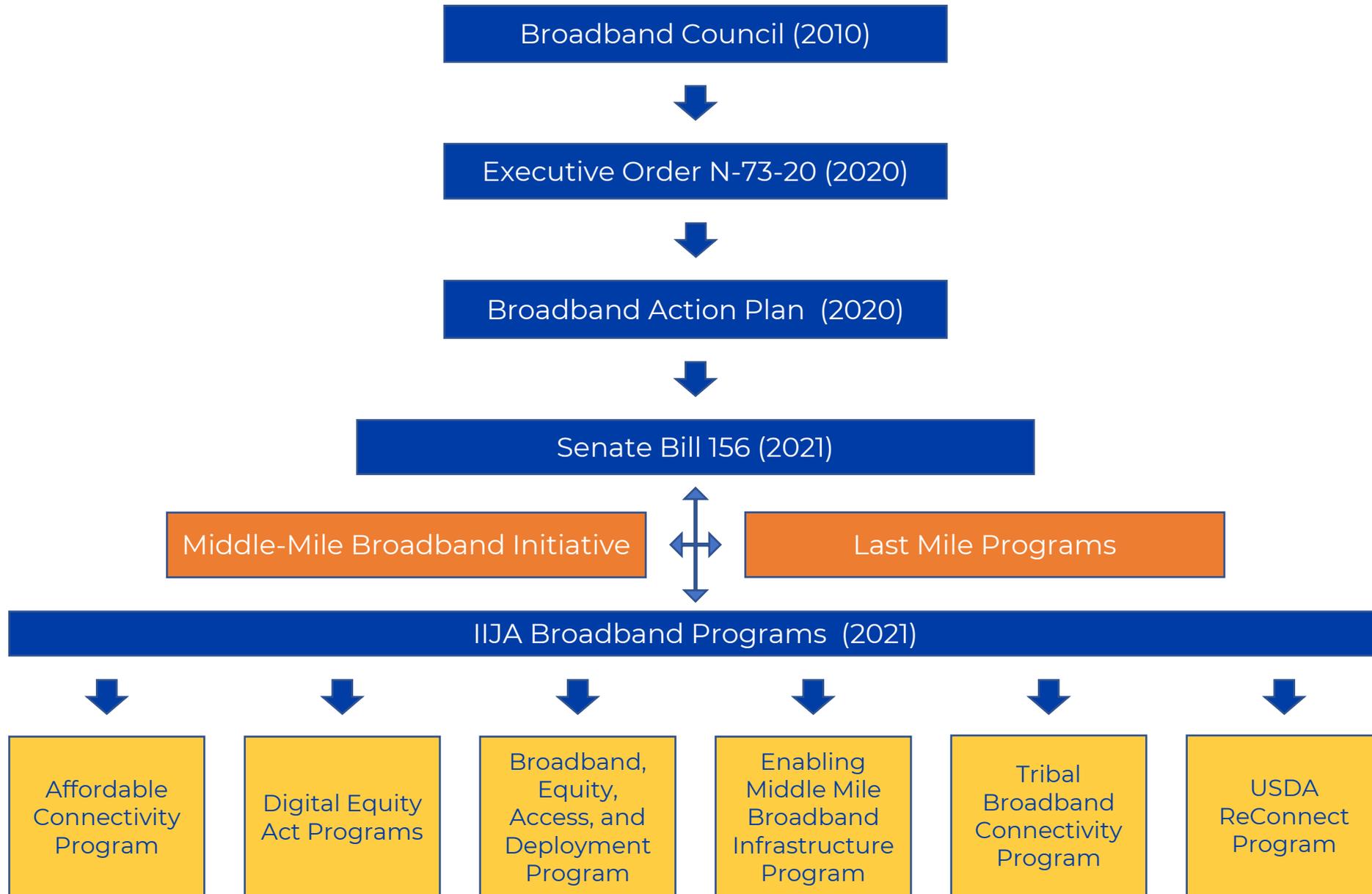
ACCESS

AFFORDABILITY

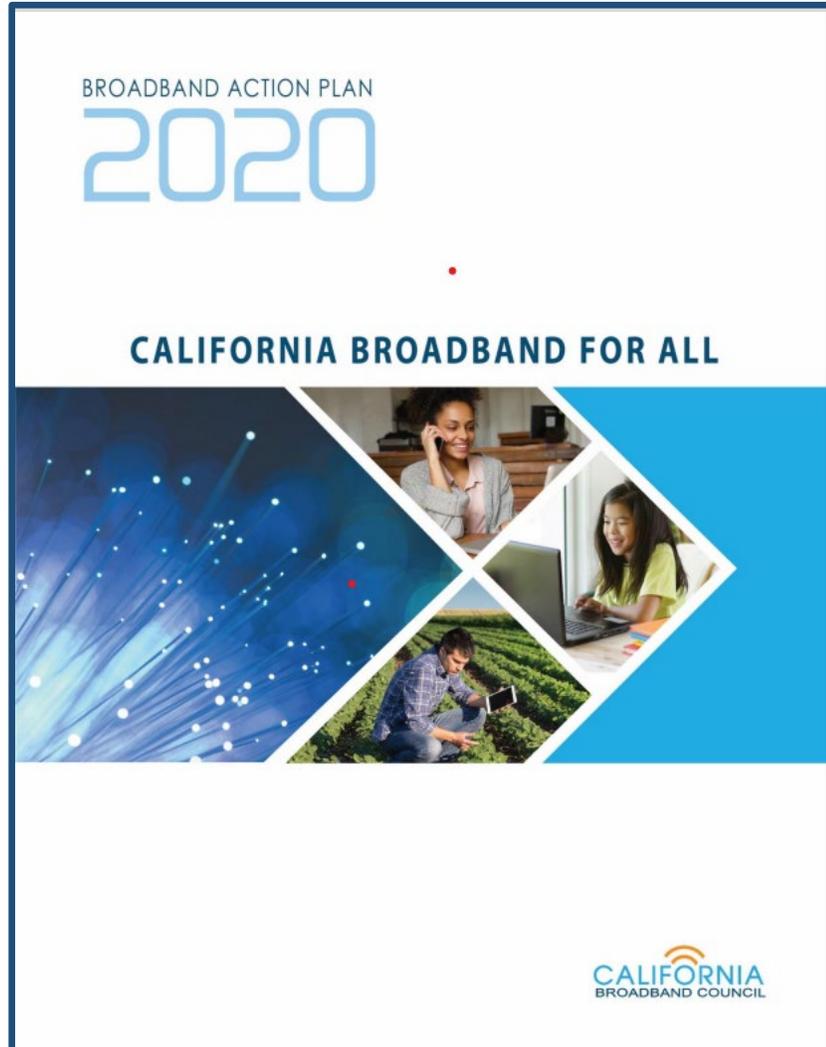
ADOPTION

DIGITAL LITERACY & INCLUSION

# BROADBAND FOR ALL



# BROADBAND ACTION PLAN



**Goal 1:** Have high-performance broadband available at home, schools, libraries, and businesses.

**Goal 2:** Have access to affordable broadband and necessary devices.

**Goal 3:** Have access to training and support to enable digital inclusion.

# The Infrastructure Investment and Jobs Act (IIJA)

**The IIJA invests roughly \$65 billion to support broadband deployment and adoption and promote digital equity in states**

Broadband Equity,  
Access, and Deployment  
(**BEAD**)

**\$42.45B**

Digital Equity Planning,  
Capacity and  
Competitive Grants

**\$2.75B**

IIJA Statute: <https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf>

# SDEP APPROACH: PLANNING COMPONENTS

## The planning process will consist of five components:

1. Statewide Planning Group
2. Outcome Area Working Groups
3. California Digital Equity Survey(s)
4. Local and Regional Outreach Events
5. Statewide Public Engagement



# SDEP Approach: Statewide Public Engagement

- Please share how we can partner and align efforts
- We look forward to working with you!

[State Digital Equity Plan Development Process | Broadband for All \(ca.gov\)](https://www.ca.gov/broadband-for-all)

## Participating in the Planning Process

If you would like to participate in California's SDEP planning process, please provide the following information:

Name \*

First

Last

Your role \*

- I am an individual resident
- I am part of a group/organization

Email \*

Phone number

City \*

County \*

ZIP code \*

How would you like to participate in the SDEP process \*

- Attend virtual statewide planning group meetings
- Attend virtual outcome area working group meetings
- Attend local/regional in-person planning event
- Promote/distribute Digital Equity Survey(s) through my network
- Not listed

Submit

# Mark Monroe

Deputy Director

Middle-Mile Broadband Initiative  
California Department of Technology

# Statewide 10,000 Map

CALIFORNIA  
**ALL**

Middle-Mile  
Broadband Initiative



1/6/2023

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## Construction Contracting Approaches

The network map was divided into two categories, based on anticipated difficulty in permitting and other land ownership and geography issues.

- The **Construction Manager General Contractor (CMGC)** approach works best for **more complex segments**
- **Job Order Contracting (JOC)** approach works best for **less complex segments**





## Major Contract Solicitations

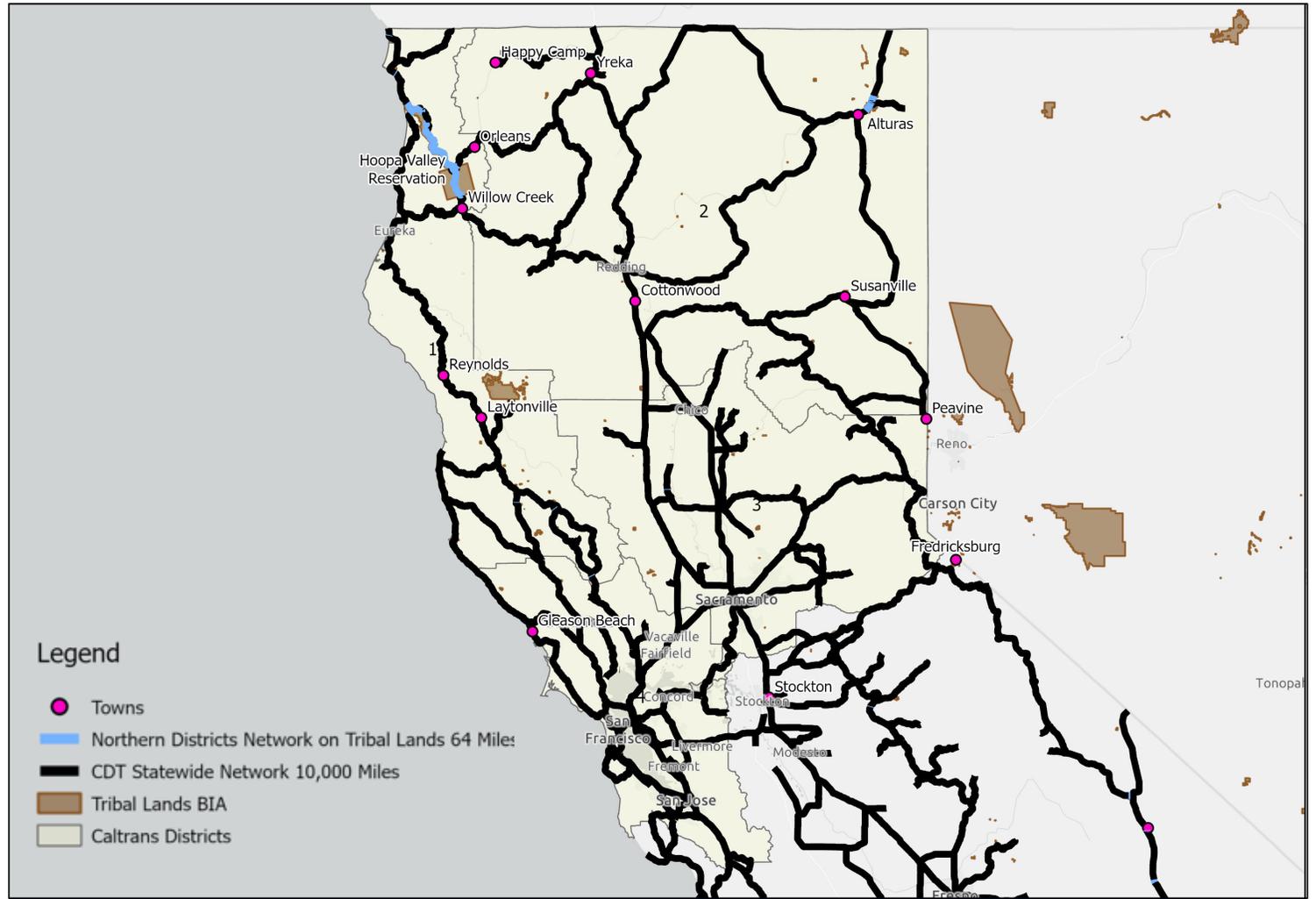
- 1. October 11, 2022, released an RFI<sup>2</sup> solicitation for pricing for alternatives to State construction:**  
*(Closed 12/30/22)*
  - **IRU/leases:** leases of existing fiber infrastructure as an alternative to the State constructing its own.
  - **Joint builds/Purchases:** Partnering with other third parties to get State owned infrastructure without the state building it directly.
  - **Colocation:** Any network requires servers and computing hardware. Colocation will allow the state to rent space for this equipment at a third-party provider's data center facility as an alternative to the State building its own facilities.
- 2. October 14, 2022, released Job Order Contracts (JOC) for construction of 5,100 miles *(Due 1/12/23)***
- 3. Early CMGC contracts in districts totaling 1,700 miles of construction *(Multiple due dates: 12/29/22 - 1/26/23)***

# MMBI Summary Tribal Reservation Miles in Districts 1, 2, 3, 4

## Total Miles – 65.05

### Tribal Reservation Miles

- District 1 – 57.4
- District 2 – 7.4
- District 3 - 0.25
- District 4 - 0.0



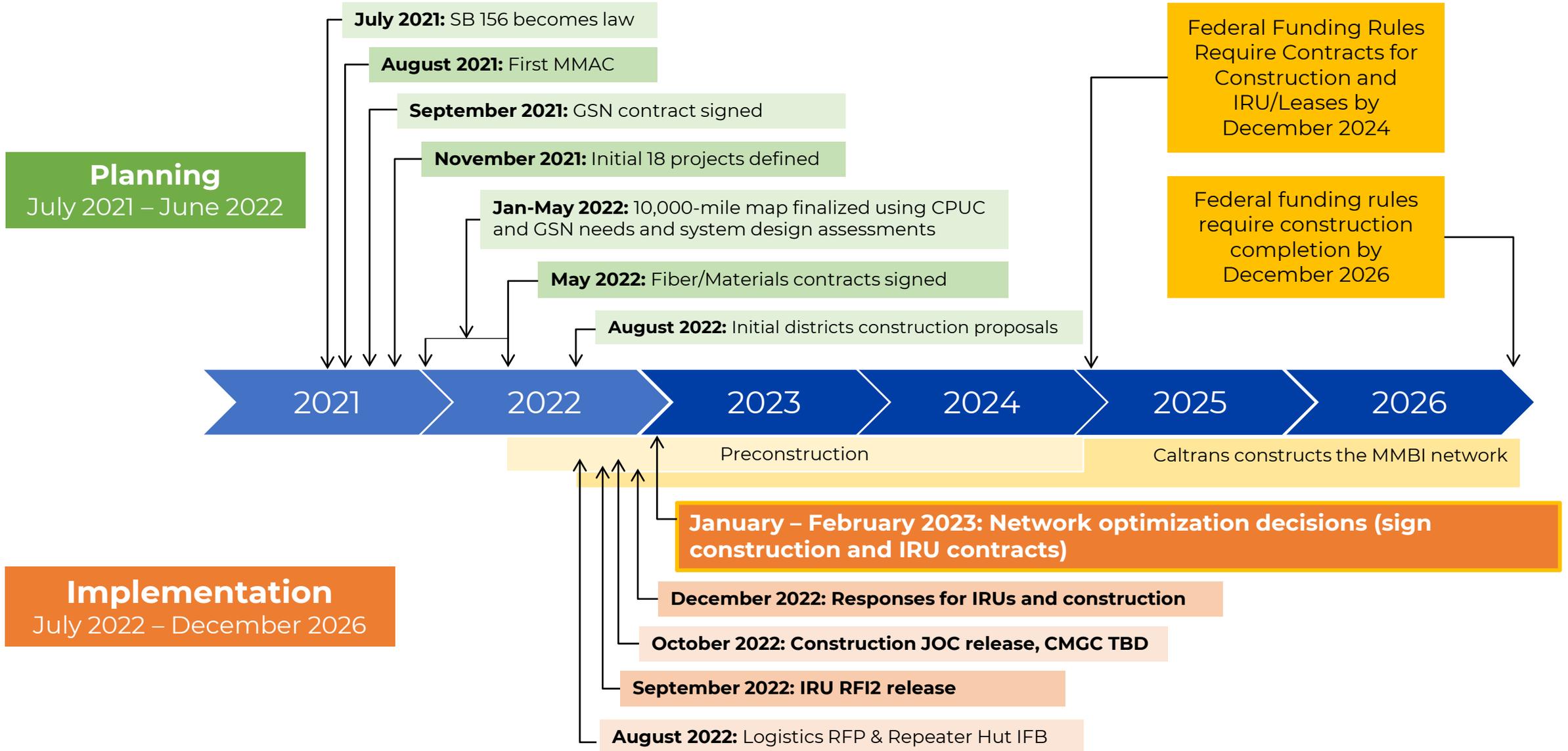
MMBI Network and Tribal Lands

Last Updated: 12/23/2022

12/23/2022 Disclaimer: This map was prepared for informational purposes only by CDT-ODS-MMBI GIS.



# Project Recap Timeline



# Comments or Questions?



## **Janice Benton**

**Assistant Deputy Director**

Middle-Mile Broadband Initiative  
California Department of Transportation

## **Hardeep Takhar**

**MMBN Program Director**

Middle-Mile Broadband Initiative  
California Department of Transportation



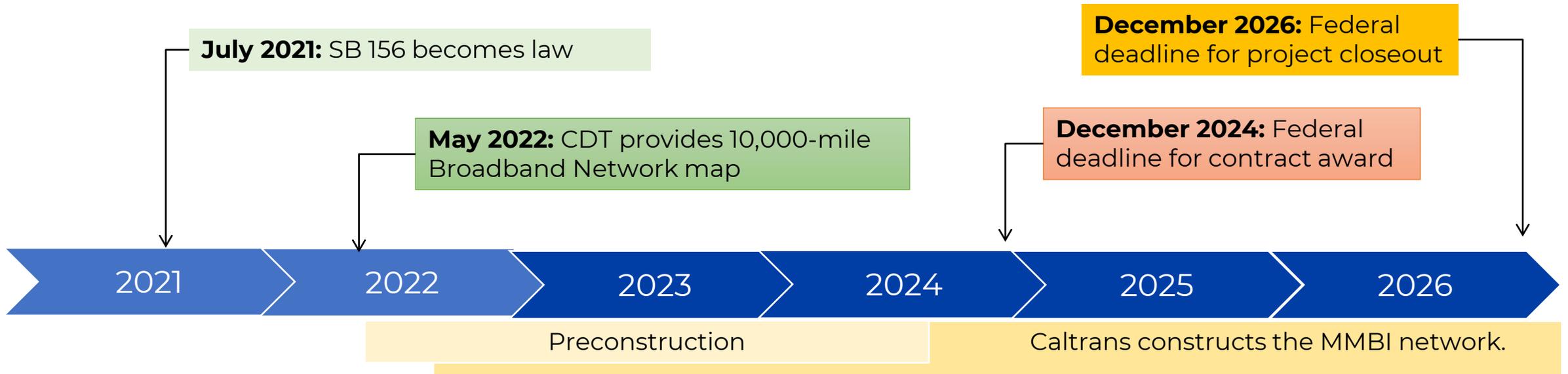
## Building the Broadband Network

# MMBI Project Delivery Building the Network



# Building the Broadband Network

## Delivery Timeline



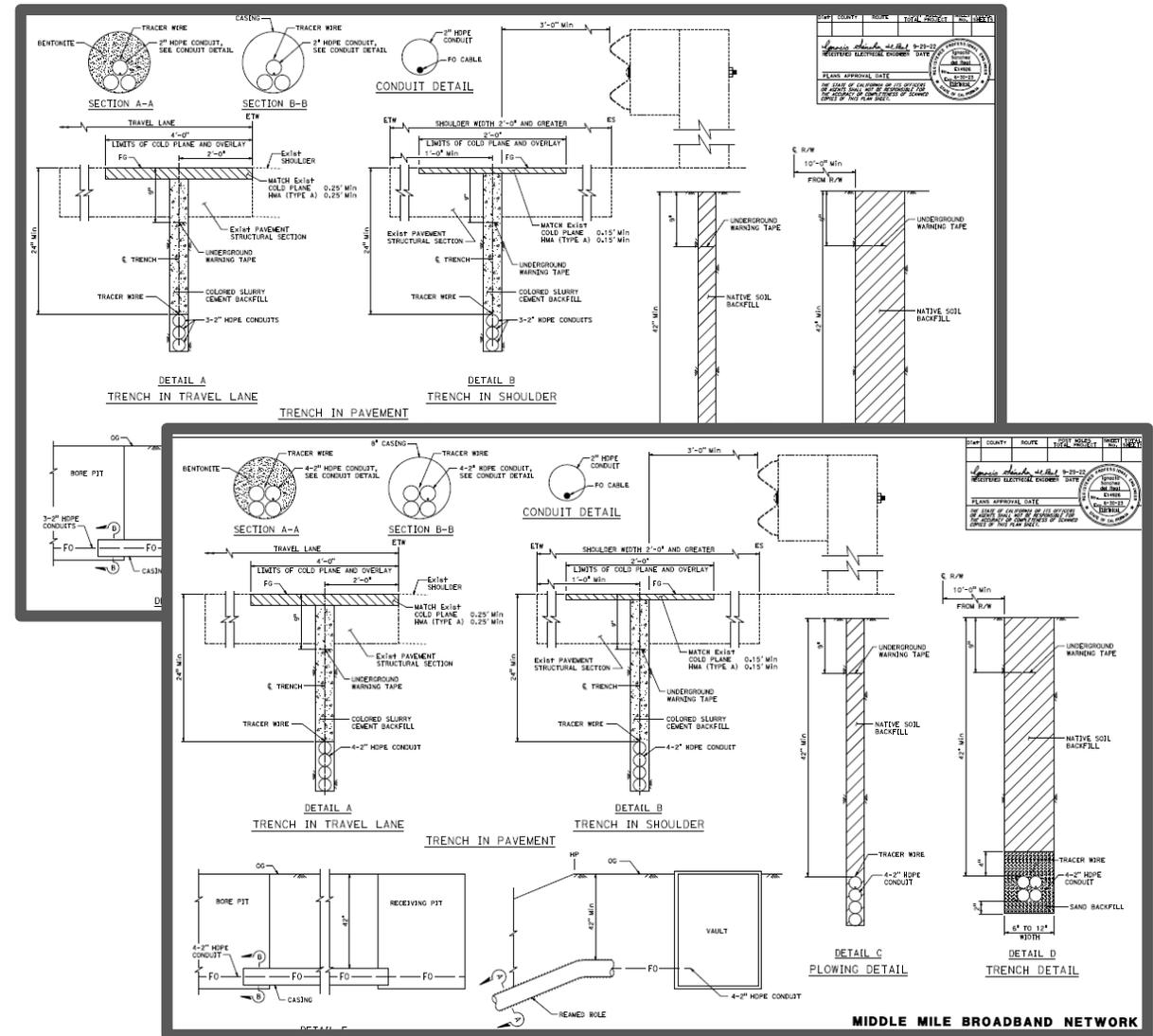
# Building the Broadband Network

## Delivery Strategy



## Design Details

- 3 Conduit Option
- 4 Conduit Option
- Vaults
- Network Hubs



## Plowing



### Description

- Vibratory plow using vibratory blades
- Narrow slit in soil as plow moves quickly
- Effortless cleanup
- Minimal soil disturbance
- Minimal soil handling

### Application

- Fast installation in soil surface
- Cost-effective installation method
- Tight schedule
- Long-haul work in open areas
- Uneven, wet or dry terrain
- Single pass
- Not applicable to roadway or concrete surfaces

### Operation

- Pre-planning
- Blue staking
- Cable installation
- Buried warning tape
- Site Restoration
- Post installation inspection

## Trenching

### Trenching (Traditional)

- Common for long, cross-country installations
- May effect traffic movement
- Slower than plowing
- More controlled cable installation



### Trenching in Pavement

- Narrow trenches (3" to 6") in pavement
- Overcomes width and depth limitations encountered with microtrenching
- Suitable for locations with significant environmental and right-of way restrictions.



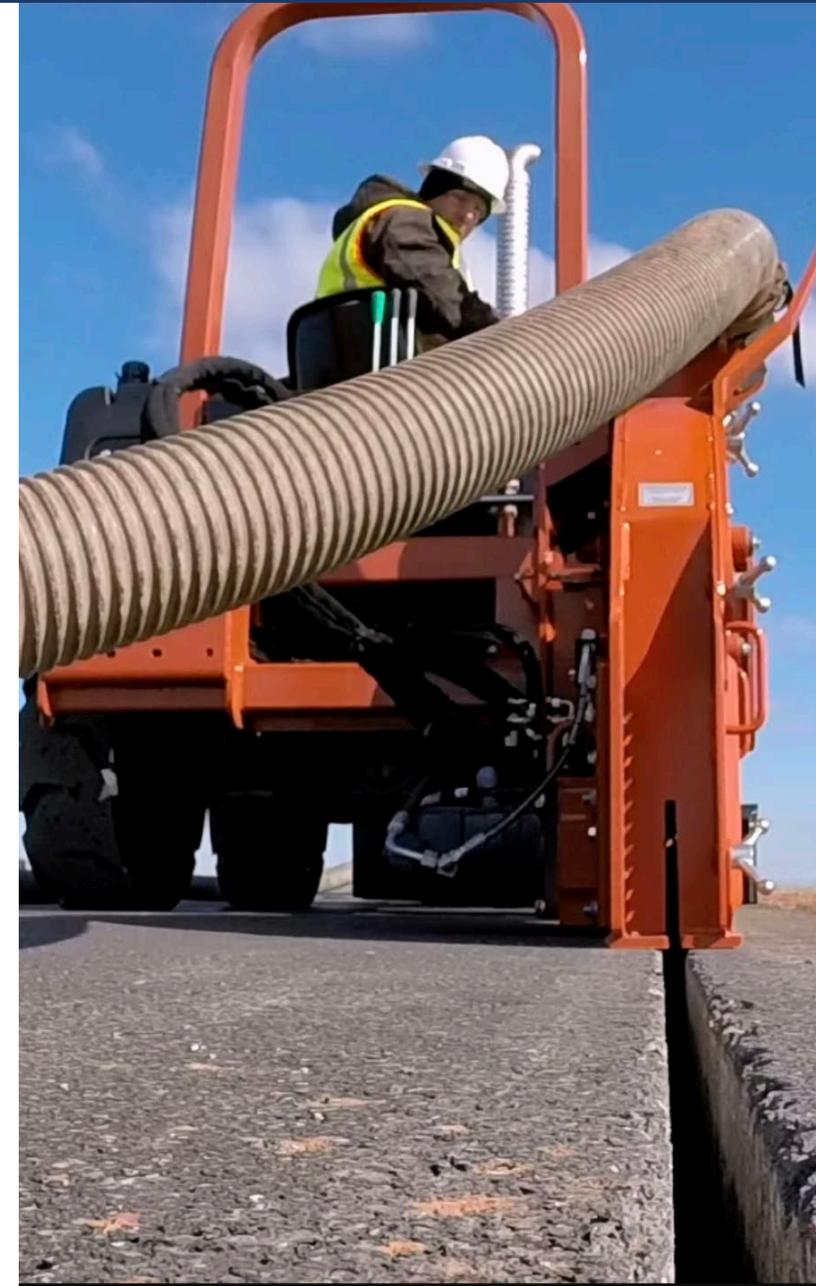
## Microtrenching

### What is Microtrenching?

- Cutting asphalt or concrete.
- Generally 2.0" and narrower.
- Depths below the upper layer but shallower than most utilities.
- Uses vacuum excavation unit to simultaneously remove spoils.
- Primarily used to install fiber

### Mainline Microtrencher

- Depth: 0" – 26"
- Width: 0.375" – 3.0
- Traversing offset
- Tilts and Swings
- Floating housing follows ground contour with constant pressure



## Horizontal Directional Drilling



### Application

- Most terrains
- Long haul
- Rocky ground conditions
- Overpass, embankments, side hill, river crossings

### Operation

- Pre-planning
- Entrance pit
- Exit pit
- Pilot hole pass
- Reaming pass
- Swab pass
- Site Restoration

### Site Pre-Planning

- Entry site
- Exit site
- Staging Site
- Stringing Site

### Drilling Entry Area

- Entry Pad
- Silt fence
- Sound Curtain for noise mitigation



## *Horizontal Directional Drilling (Continued)*

# Trenchless Installation

Stitch boring is a cost-effective trenchless alternative, utilizing pneumatic piercing tools to shoot from one small pit to the next.

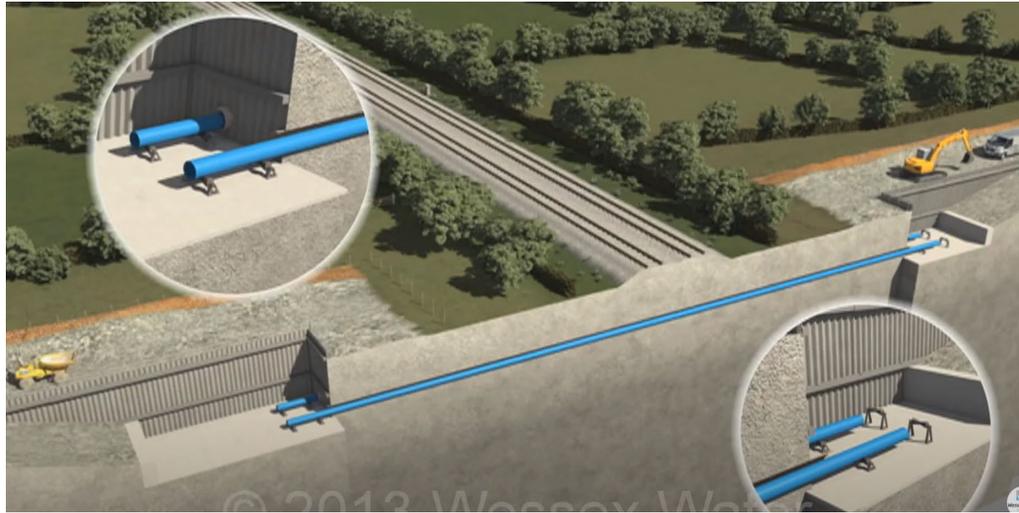
## Typical Equipment

- Drill rig
- Drill pipe skid
- Excavator
- Entry pit
- Separation Plan
- Holding tanks
- Fluid pumps
- Control cabin

## Materials

- Drill pipe
- Drill bit
- Bentonite clay





## Trenchless Installation *Jack and Boring*

### Application

- Cross roadways and railroads when casing is required
- Horizontal Directional Drilling not feasible

### Operation

- Pre-planning
- Entrance pit
- Exit pit
- Pilot hole pass
- Reaming pass
- Swab pass
- Pipe Casing
- Site Restoration

### Site Pre-Planning

- Entry site
- Exit site
- Staging Site
- Stringing Site
- Welding site

# Q&A Session



# **Kathryn Rose**

Office Chief

HQ Cultural Studies Office

California Department of Transportation

# **Sarah Allred**

Statewide Native American Coordinator

HQ Native American Cultural Studies Branch

California Department of Transportation

# Environmental & Cultural Focus

## MMBN Project Delivery Process

Caltrans' 12 Districts are responsible for the delivery of the MMBN projects within key corridors of the State Highway System throughout the state.

Project Delivery = Design, Environmental Review & Compliance, Permitting, and Construction.



# Environmental & Cultural Focus

## Project Delivery Strategy



1

Delivery of the MMBN projects is being expedited compared to the typical delivery of Caltrans' transportation projects; Design will be environmentally-driven to promote avoidance of environmental resources.

2

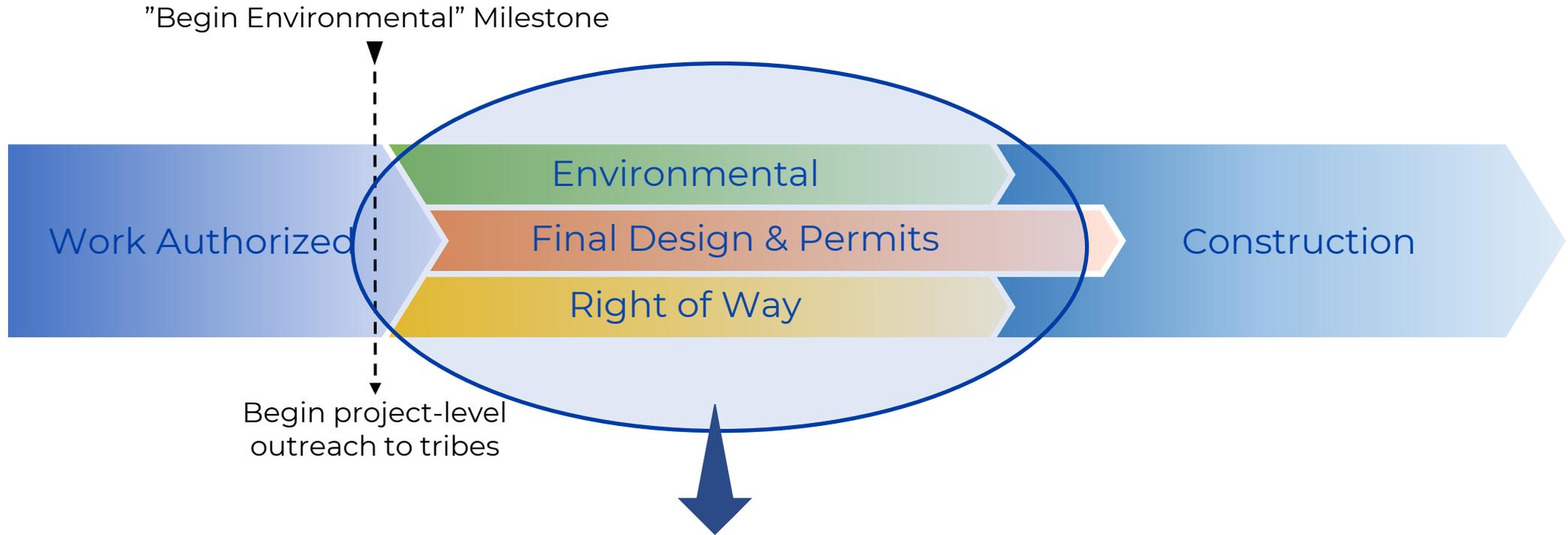
Caltrans will comply with all state and federal environmental and historic preservation laws in the same manner it does for transportation projects.

3

Caltrans will conduct outreach and consultation with affiliated Native American Tribes for each MMBN project in the same manner as it does for transportation projects.

# Environmental & Cultural Focus

## Environmental and Cultural Resources Studies Process



- Identification
- Evaluation
- Avoidance and Minimization
- Mitigation Development

# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination:

- **Cultural Studies Office/Native American Cultural Studies Branch Website**

dot.ca.gov/programs/environmental-analysis/cultural-studies/native-american-cultural-studies#dnac

CA.GOV About Caltrans Contact Us ADA Certification Request ADA Compliant Documents Settings Translate

Caltrans Travel Work with Caltrans Programs Caltrans Near Me Search

### District Native American Coordination

The Headquarters Native American Cultural Studies Branch is the primary point of contact for all matters related to tribal cultural heritage considerations in transportation planning and project delivery. We welcome and encourage the establishment of regular communications and coordination among Caltrans and tribal government representatives who are responsible for the protection of tribal heritage to promote better planning and avoidance of important cultural sites. Please [contact us](#) if you have any questions or if you would like to be connected with your local District Native American Coordinator (DNAC).

- **Contact List** - [Caltrans Native American Cultural Studies Coordination \(DNAC List\) \(PDF\)](#)
- **Org Chart** - [Caltrans Statewide and Tribal Relations Staff and Executive Leadership \(PDF\) | ADA Compliant Version \(PDF\)](#)

[Back to Top](#)

**Webpage Address:** <https://dot.ca.gov/programs/environmental-analysis/cultural-studies/native-american-cultural-studies>

# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination

- **District Native American Coordinators (DNACs)**



**Caltrans Native American Cultural Studies Coordination (DNAC List)**

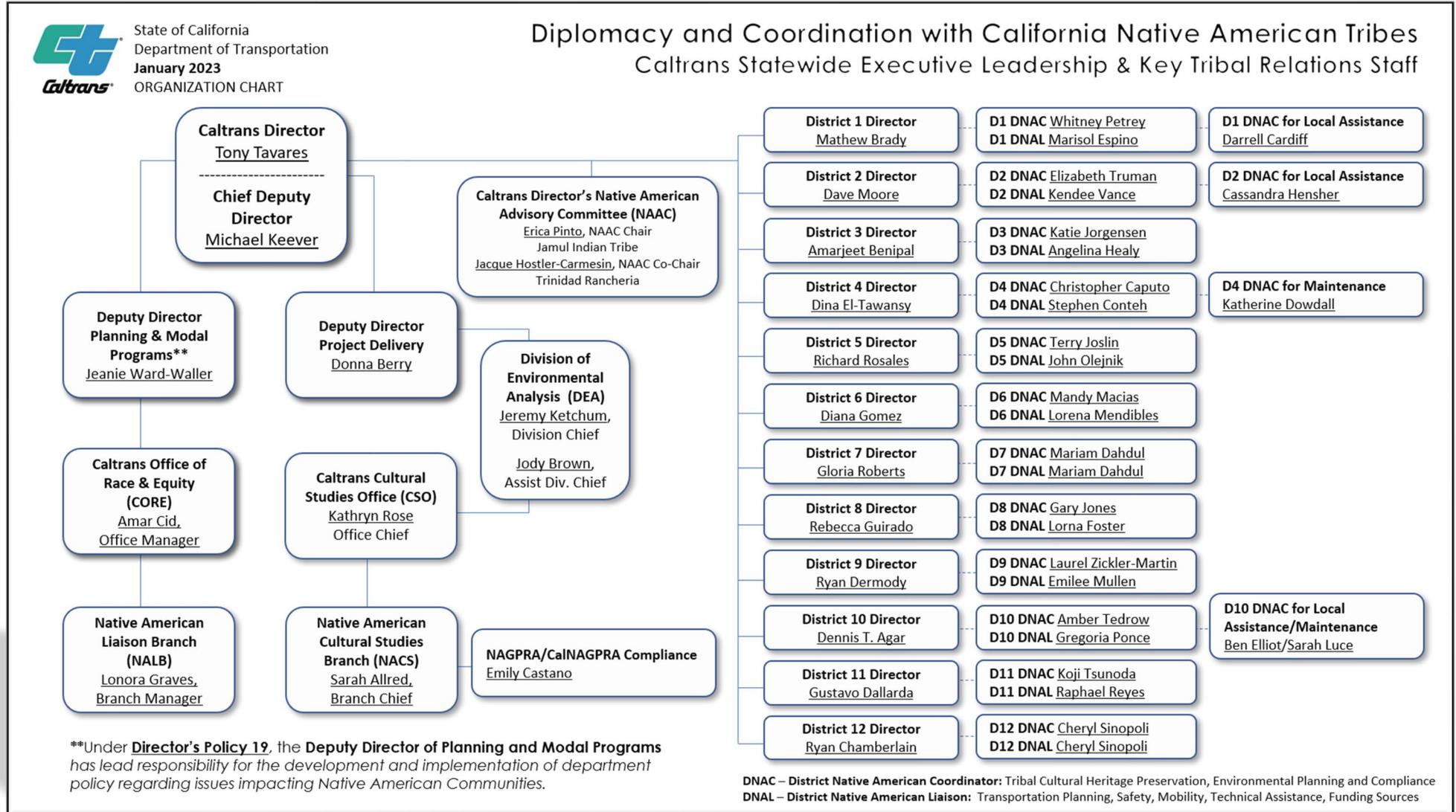
District	Region	Name	Title	Phone	Email
HQ	Statewide	Sarah Allred	Cultural Studies Office Native American Cultural Studies Branch Chief	916-956-5506	<a href="mailto:sarah.allred@dot.ca.gov">sarah.allred@dot.ca.gov</a>
1	North	Marisol Espino	District 1 Native American Coordinator	530-812-4546	<a href="mailto:marisol.espino@dot.ca.gov">marisol.espino@dot.ca.gov</a>
2	North	Elizabeth Truman	District 2 Native American Coordinator	530-759-3411	<a href="mailto:elizabeth.truman@dot.ca.gov">elizabeth.truman@dot.ca.gov</a>
2	North	Cassandra Hensher	District 2 Native American Coordinator – Local Assistance	530-225-3238	<a href="mailto:cassandra.hensher@dot.ca.gov">cassandra.hensher@dot.ca.gov</a>
3	North	Katie Jorgensen	District 3 Native American Coordinator	530-720-4555	<a href="mailto:katherine.jorgensen@dot.ca.gov">katherine.jorgensen@dot.ca.gov</a>
4	Bay	Christopher Caputo	District 4 Native American Coordinator	510-715-9059	<a href="mailto:christopher.caputo@dot.ca.gov">christopher.caputo@dot.ca.gov</a>
4	Bay	Kathy Dowdall	District 4 Native American Coordinator – Maintenance	510-715-7119	<a href="mailto:katherine.dowdall@dot.ca.gov">katherine.dowdall@dot.ca.gov</a>
5	Central Coast	Terry Joslin	District 5 Native American Coordinator	805-235-9747	<a href="mailto:terry.joslin@dot.ca.gov">terry.joslin@dot.ca.gov</a>
6	Central Valley	Mandy Macias	District 6 Native American Coordinator	559-445-6250	<a href="mailto:mandy.macias@dot.ca.gov">mandy.macias@dot.ca.gov</a>
7	South	Mariam Dahdul	District 7 Native American Coordinator	213-897-5743	<a href="mailto:mariam.dahdul@dot.ca.gov">mariam.dahdul@dot.ca.gov</a>
8	South	Gary Jones	District 8 Native American Coordinator	909-383-7505	<a href="mailto:gary.jones@dot.ca.gov">gary.jones@dot.ca.gov</a>
9	East Central	Laurel Zickler-Martin	District 9 Native American Coordinator	760-419-1488	<a href="mailto:laurel.zickler-martin@dot.ca.gov">laurel.zickler-martin@dot.ca.gov</a>
10	Central Valley	Amber Tedrow	District 10 Native American Coordinator	209-479-3269	<a href="mailto:amber.tedrow@dot.ca.gov">amber.tedrow@dot.ca.gov</a>
11	South	Koji Tsunoda	District 11 Native American Coordinator	619-606-3108	<a href="mailto:koji.tsunoda@dot.ca.gov">koji.tsunoda@dot.ca.gov</a>
12	South	Cheryl Sinopoli	District 12 Native American Coordinator	657-328-6165	<a href="mailto:cheryl.sinopoli@dot.ca.gov">cheryl.sinopoli@dot.ca.gov</a>

January 2023

# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination

- Caltrans Statewide Tribal Relations Org Chart



# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination

- Caltrans Environmental GIS Library



Environmental GIS Library provided by the HQ Div. of Environmental Analysis

This application is being updated for digital accessibility and it will continue to function while updates are in progress.

Find address or place

GIS Library

Type in to search for a layer:

Check Layer(s) to add to the map.  
There are currently 302 layers in the library.

General Biology Climate Cultural Haz Waste Air/Noise Water Agencies CT

SB1 Projects Transportation **Broadband** Others

Statewide Broadband Network (10\_07\_2022) Metadata: [link](#)

BLM Lands Metadata: [link](#)

Help? FAQs Questions? Click here

100mi

-125.892 30.491 Degrees

Click Tabs and Sub-Tabs for various GIS layers

Webpage Address: [https://svctenvims.dot.ca.gov/DEA\\_Library/](https://svctenvims.dot.ca.gov/DEA_Library/)

# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination

- **Caltrans Standard Environmental Reference (SER)**
- **Volume 2: Cultural Resources Compliance**



The screenshot shows the Caltrans website interface. At the top, there is a navigation bar with links for 'About Caltrans', 'Contact Us', 'ADA Certification', 'Request ADA Compliant Documents', 'Settings', and 'Translate'. Below this is the Caltrans logo and a row of icons for 'Travel', 'Work with Caltrans', 'Programs', 'Caltrans Near Me', and 'Search'. The main content area has a breadcrumb trail: 'Home | Programs | Environmental Analysis | Standard Environmental Reference (SER) | Volume 2: Cultural Resources'. The page title is 'Volume 2: Cultural Resources'. Below the title is a 'Contact' section with a paragraph of text. This is followed by an 'Overview' section with two paragraphs of text. The text in the 'Overview' section discusses the importance of cultural resources in project development and provides information about legal requirements and templates.

### Volume 2 Chapters:

- **Chapter 1** – General Information
- **Chapter 2** – Cultural Resources Procedures
- **Chapter 3** – Native American Consultation
- **Chapter 4** – Cultural Resources Identification
- **Chapter 5** – Archaeological Resources
- **Chapter 6** – Built Environment Resources

**Webpage Address:** <https://preview-dot.dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-2-cultural-resources>

# Environmental & Cultural Focus

## Information and Resources for Communication and Coordination

### Key Caltrans Contacts for MMBN Environmental and Cultural Resources Inquiries:

Jennifer Lugo, Statewide MMBN Environmental Coordinator

- [Jennifer.Lugo@dot.ca.gov](mailto:Jennifer.Lugo@dot.ca.gov)

Jody Brown, Assistant Division Chief, HQ Division of Environmental Analysis (DEA)

- [Jody.Brown@dot.ca.gov](mailto:Jody.Brown@dot.ca.gov)

Kathryn Rose, Office Chief, HQ Cultural Studies Office (DEA)

- [Kathryn.Rose@dot.ca.gov](mailto:Kathryn.Rose@dot.ca.gov)

Sarah Allred, Branch Chief, HQ Native American Cultural Studies Branch (DEA)

- [Sarah.Allred@dot.ca.gov](mailto:Sarah.Allred@dot.ca.gov)

# Comments or Questions?



# 5 Minute Break



**Middle-Mile Broadband Initiative**

**Rachel Peterson**

**Executive Director**

California Public Utilities Commission

**Matt Rantanen**

**Senior Advisor**

GoldenStateNetwork



## Overview

- **Office of the Tribal Advisor and Tribal Liaison**
  - Tribal Consultation Policy
  - Tribal Land Transfer Proceeding
- **Last Mile Broadband Connections**
  - Tribal Technical Assistance
  - Technical Assistance for local Agencies
  - Last Mile Federal Funding Account
  - California Advanced Services Fund
  - Loan Loss Reserve Program

## CPUC Office of The Tribal Advisor

- Mr. Holbrook is an enrolled member of the Pit River Tribe, also has Maidu ancestry.
- Executive Director of Maidu Summit Consortium 2013-2019, oversaw acquisition of 2,325 acres of Maidu ancestral homeland through grant from PG&E.
- CPUC's Office of the Tribal Advisor is located at CPUC's Sacramento office.



### CONTACT US

[TribalAdvisor@cpuc.ca.gov](mailto:TribalAdvisor@cpuc.ca.gov)

415-793-8522

300 Capitol Mall, 5th Floor  
Sacramento, CA 95814

## CPUC Tribal Outreach and Engagement

- For all further information, see CPUC main web page
- Office of the Tribal Advisor
  - Tribal Liaison
- Tribal Consultation Policy
- Tribal Land Transfer Policy
  - Implementation and Policy Review Rulemaking 22-02-002
- Covers Energy, Broadband, Safety and other policy areas

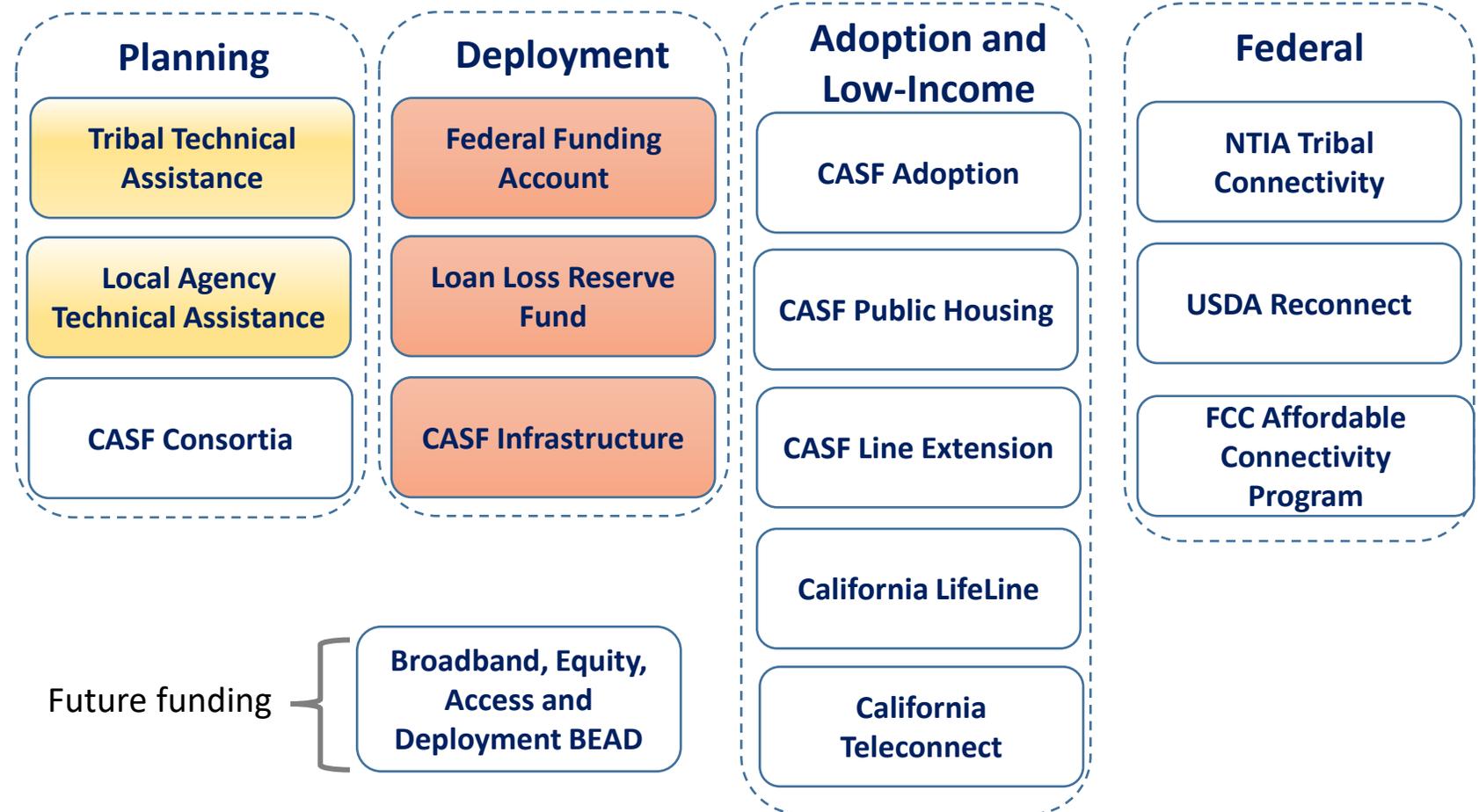


# CPUC Promoting Last Mile Connections

## Mapping, Modeling & Costing



## CPUC Funding Programs



## CPUC Assisting Tribes with Last Mile Connections

- CPUC Tribal Technical Assistance Program
- Assistance for Tribes to improve communications
  - Use consultants to develop market studies, feasibility studies, and/or business plans which support Tribes for improved communications
  - Application windows Jan 1, April 1, July 1, October 1
- [CPUC Tribal Technical Assistance web page](#)
  - Application information and webinar are on the CPUC Tribal Technical Assistance site



# CPUC Grantmaking to Tribes & Local Agencies for Technical Assistance

\$50 Million for Tribal Governments and Local Agencies for last-mile broadband infrastructure projects.

## • Eligibility

- Tribal set-aside from total funding.
- Funds pre-construction deliverables, such as environmental permits, engineering studies, and strategic plans

## • Applications

- 94 applicants requested a total of \$42 million.
- Applications still being accepted as of Jan 2023

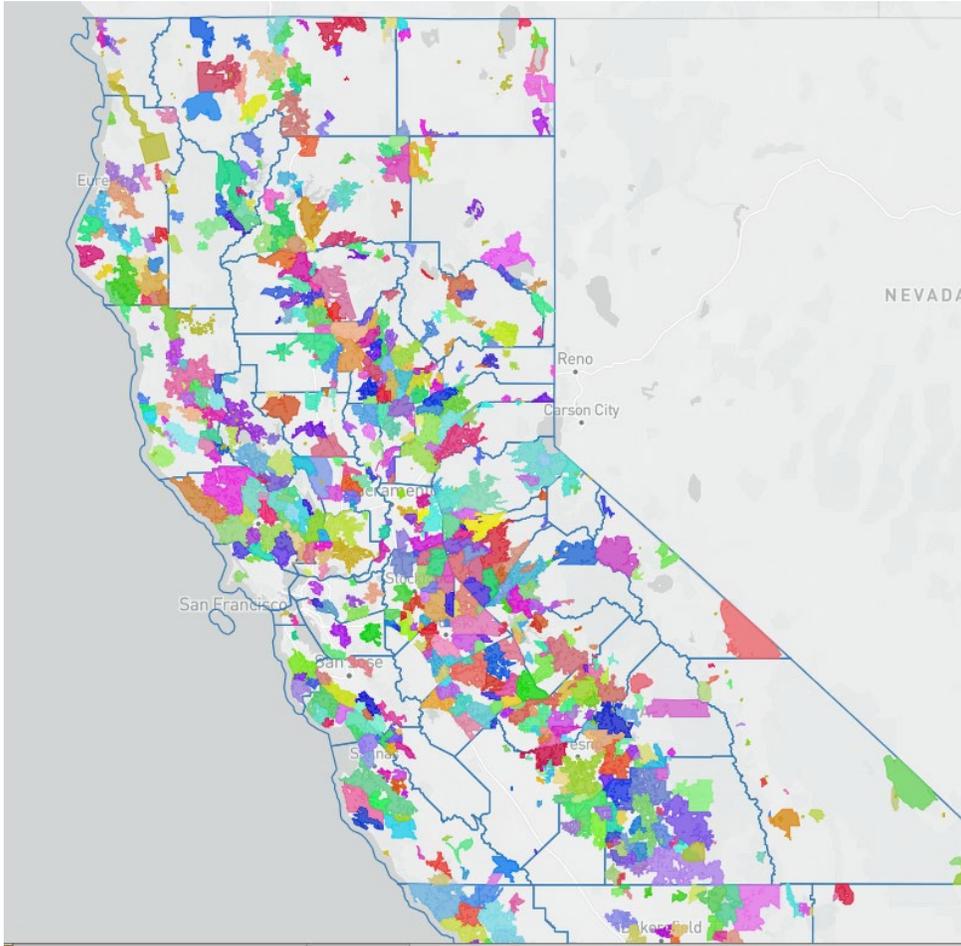
## • Awards

- 68 grants for \$30 million (December 12, 2022).
- [County dashboard](#)
- [Technical assistance program](#)

County Map of Technical Assistance Applications



# CPUC Deploying Last Mile Connections Through Priority Areas



Map showing priority areas and layer of tribal lands

The \$2 billion Federal Funding Account is for last-mile broadband infrastructure

- **Priority Areas** are pre-defined, eligible areas where entities can apply for funds.
- Designed to support a sustainable business case for the service provider.
- **Entities eligible to apply include Tribes**, service providers, public entities, non-profits.
- Priority Areas Map is publicly available.

# CPUC Expanding Broadband Access through California Advanced Services Fund

Up to \$150 million a year funded by a surcharge on telephone bills for the California Advanced Services Fund (CASF) to serve:

- **Broadband Adoption and Digital Equity**
  - Grants to public entities and community-based organizations for digital literacy and broadband access projects.
- **Public Housing / Low-Income Communities**
  - Grants to build broadband networks offering free broadband service for residents of low-income communities.
- **Consortia**
  - Regional experts to help develop grant applications.
- **Infrastructure**
  - Grants for unserved areas.



California Advanced Services Fund Adoption Account Center for Elders' Independence digital literacy project grantee

# CPUC Supporting Public Entity Financing through Loan Loss Reserve Program

- The Broadband Loan Loss Reserve Program helps public entities to finance broadband infrastructure deployment.
- Proposed program rules
  - Proposed Rules
  - Program Fact Sheet
  - Proposal Comments Fact Sheet

## CALIFORNIA BROADBAND LOAN LOSS RESERVE FUND

*Supporting Public Broadband Networks in California*

### WHAT IS THE CALIFORNIA BROADBAND LOAN LOSS RESERVE FUND?

The California Broadband Loan Loss Program is a new \$750 million fund. It will support local governments and nonprofits with the financing for building broadband infrastructure. Specifically, it will provide credit enhancements that will enable more favorable terms when they borrow money from bond markets and financial institutions.

### HOW DOES THE LOAN LOSS PROGRAM WORK?

The Broadband Loan Loss Reserve Fund Program enables public broadband investment by encouraging lenders or investors to invest in the California broadband market by providing protection against a certain percentage of the lender's risk of loss in a given financial transaction.

By guaranteeing local agency bonds, pooling risks, and negotiating on behalf of all local agencies, the Loan Loss Program lowers borrowing costs for local agencies and provides investors with the certainty they need to invest in public broadband.

Requirements are being developed through California Public Utilities Commission Rulemaking (R.) 20-08-021 and a staff proposal will be released in the third quarter of 2022.

### ELIGIBLE ENTITIES PER PUBLIC UTILITIES CODE 281.2

Non-Profits and Local Government Agencies, which includes:

- Counties
- County Service Areas
- Community Service Districts
- Public Utility Districts
- Municipal Utility Districts
- Joint Powers Authorities
- Local Educational Agencies
- Sovereign Tribal Governments
- Electrical Cooperatives

# CPUC Thank You

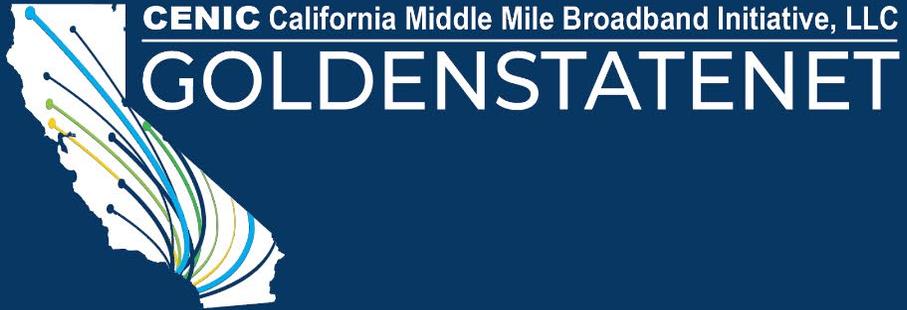
## Contact:

[statewidebroadband@cpuc.ca.gov](mailto:statewidebroadband@cpuc.ca.gov)

[TribalAdvisor@cpuc.ca.gov](mailto:TribalAdvisor@cpuc.ca.gov)



CASF Hoopa Valley PUD Hunter Fiber Project team touring the Hoopa network operations center in 2021.



# Matt Rantanen

Senior Advisor Tribal Broadband  
[matt.rantanen@goldenstatenet.org](mailto:matt.rantanen@goldenstatenet.org)



# Q&A Session & Discussion



Middle-Mile  
Broadband Initiative

# Closing Remarks



# THANK YOU!

Contact: [MMBI.PMO@state.ca.gov](mailto:MMBI.PMO@state.ca.gov)



**BROADBAND  
FOR ALL**

