



California Public Utilities Commission

CPUC Post-Challenge Process BEAD Map Data Dictionary

This document describes the CPUC Post-Challenge Process BEAD Map, which provides an overview of Broadband Equity, Access, and Deployment (BEAD) eligible and ineligible locations in California. The map shows Eligible Locations (unserved, underserved, and Eligible Community Anchor Institutions) and Ineligible Locations (served or already receiving funding).

Key information includes:

- Date the map was last updated
- BEAD eligibility status
- Adjudication results
- Community Anchor Institution status
- Equity layers
- California Middle-Mile Broadband Network
- Political boundaries
- Funding programs
- Broadband technology
- Internet service providers
- Visual basemaps.

A data dictionary explains each of these terms and how to use the map's features.

Key Information:

- **Eligible Locations:** Broadband Serviceable Locations (BSLs) identified as unserved (no internet access or very limited access), underserved (access below 100/20 Mbps download/upload speeds), or Eligible Community Anchor

Institutions (speed of not less than 1 Gbps for both downloads and uploads and latency less than or equal to 100 milliseconds).

- **Ineligible Locations:** BSLs considered served or already receiving funding for broadband expansion.

Disclaimer:

- This map is for informational purposes only and does not allow for the export of any data.
- The map reflects data approved by the National Telecommunications and Information Administration (NTIA) and California Public Utilities Commission (CPUC).
- Data on this map may be periodically updated at key program milestones. Please refer to the "last updated" date in the top left corner for the most recent information.
- For your reference, the map includes information on the FCC Fabric version, availability data, and federal deduplication dates.

CPUC BEAD Map Data Dictionary

Broadband Equity, Access, and Deployment (BEAD) Section

1. **Info Bubble:** Includes additional information about the version of the map being displayed as well as any IPv1 modifications
2. **Last Updated:** Indicates the date and time when the map data was last refreshed.
 - **Significance:** Ensures users are aware of the most recent updates to location eligibility status.
3. **Fabric Version:** Indicates the version of fabric **locations** that CPUC is using as approved by NTIA
4. **Fabric Date:** Indicates the version of fabric **locations** that CPUC is using as approved by NTIA
5. **National Broadband Map Availability:** Indicates the version of fabric **availability data** that CPUC is using as approved by NTIA
6. **Federal Deduplication Version Date:** Indicates the date of **Federal enforceable commitments** that CPUC is using as approved by NTIA
7. **State Deduplication Date:** Indicates the date of **State enforceable commitments** that CPUC is using as approved by NTIA and CPUC

BEAD Eligibility Section

1. **Description:** A filter allowing users to view locations based on their eligibility for BEAD funding.
2. **Drop down Selection:** The drop down allows users to select the point in time representation of the map such as pre-challenge, post-challenge, pre-application etc. This dropdown will continue to be updated with new options at key milestones in the BEAD process.
3. **Categories:**
 - **Eligible:**
 - **Unserved:** No internet access or speeds below 25/3 Mbps download/upload.
 - **Underserved:** Speeds between 25/3 Mbps and 100/20 Mbps download/upload.
 - **Eligible Community Anchor Institution:** Speed of not less than 1 Gbps for both downloads and uploads and latency less than or equal to 100 milliseconds.
 - **Ineligible:**
 - **Served:** Speeds of 100/20 Mbps or higher.
 - **Funded:** Locations already receiving funding for broadband deployment from federal or state programs.
4. **Methodology:**
 - Eligibility is determined based on Fabric Fixed Availability Data, which includes all Wired and Licensed Fixed Wireless broadband services.
 - Locations are considered "funded" if they have been allocated funding from federal or state broadband deployment programs.

Adjudication Results

1. **Description:** Reflects the changes that occurred during the challenge process.
2. **Categories:**
 - **Rejected:** At the conclusion of the challenge process, it was determined that there was not sufficient evidence to change the service status of the BSL or CAI.
 - **Sustained:** At the conclusion of the challenge process, it was determined that there was sufficient evidence to change the service status of the BSL or CAI.

- **Moot:** The location was challenged but the challenge did not result in a change to the service status of the BSL or CAI.
- **Not Challenged:** The location was not challenged did not result in a change to the service status of the BSL or CAI due to the challenge process.

Community Anchor Institution (CAI)

1. Description:

- A community anchor institution is a non-profit organization that plays a vital role in the community, such as schools, libraries, hospitals, and community centers.
- This filter indicates locations that are or are not CAIs.

Notes:

- Not every CAI is also a BSL (Broadband Serviceable Location).
- CAIs are considered served if they have 1000/1000 Mbps download/upload speeds.

Equity

1. Description:

- These layers reflect Disadvantaged Communities and Low-Income Areas as defined by the CPUC:
 - Disadvantaged Communities show CalEPA's designation of disadvantaged communities based on the following four categories: (1) Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0; (2) Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores; (3) Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; (4) and areas under the control of federally recognized Tribes. More information about the CalEnviroScreen is available at <https://oehha.ca.gov/calenviroscreen>.
 - Low-income Areas show areas where aggregated household incomes are less than 80 percent of county or state median income. Median income dataset is from the California Department of Finance's 5-year estimates based from the 2016-2020 American Community Survey, which can be downloaded from

<https://dof.ca.gov/reports/demographic-reports/american-community-survey/Median>.

- These layers can be toggled on or off.

Note: Refer to the CPUC's approved IPv2 to see how these areas will affect BEAD applications.

Other

1. **California Middle-Mile Broadband Network:**

- **Description:** The Middle-Mile Network shows over 8,000 miles of proposed statewide open-access middle-mile broadband network as of January 27, 2025. The middle-mile network is the physical infrastructure required to enable internet connectivity for homes, businesses and community institutions. It is made up of high-capacity fiber lines that carry large amounts of data at high speeds over long distances between local networks and global internet networks. Current version of the proposed middle mile network is available at <https://middle-mile-broadband-initiative.cdt.ca.gov/>.

2. **State Highways:** Toggle California State Highways on or off represented by a dotted blue line.

3. **Railroads:** Toggle railroads on or off represented by a dotted grey line.

Note: These layers can be toggled on or off as needed.

Political Boundaries

1. **Description:** These layers show defined political boundaries in the state of California:

- **Census Blocks** show the boundaries for all blocks in California based on the 2020 Census.
- **Census Block Groups** show the boundaries for all Census blocks within a Census tract based on the 2020 Census.
- **Congressional Districts** show California's 52 Congressional districts.
- **Tribal Lands** show the boundaries for 109 federally recognized Tribes in California as defined by the Bureau of Indian Affairs and U.S. Census Bureau.
- **County Boundaries** show the boundaries for California's 58 counties.
- **City Boundaries** show California's cities and Census designated places, which are statistical equivalents of incorporated places and represent

unincorporated communities that do not have a legally defined boundary or an active, functioning governmental structure. Examples of CDPs include unincorporated communities, planned communities, military installments, university towns, and resort towns.

- **Senate Districts** show the boundaries for California's 40 Senate districts established by the California Citizens Redistricting Commission in December 2021.
- **Assembly Districts** show the boundaries for California's 80 Assembly districts established by the California Citizens Redistricting Commission in December 2021.

Notes:

- Layers can be toggled on or off.
- New layers may be added over time.
- Layers currently include Census Blocks, Census Block Groups, Congressional Districts, Tribal Lands, County Boundaries, Cities Boundaries, Senate Districts, and Assembly Districts.

Funding Programs

1. **Description:** This filter can be used to show or hide locations awarded funding by program (e.g. FFA, CASF, RDOF).

Notes:

- Multi-selection is allowed.
- The drop-down list includes all known broadband funding programs in the state.
- Funding programs might include Baseline, Above Baseline, and Gigabit tiers, which reflect if the awarded funding meets the respective program minimum download/upload speeds, above those speeds, or at 1000 Mbps or higher.

Broadband Technology

1. **Description:** This filter can be used to show or hide locations by broadband technology as defined by the FCC (e.g. Fiber, Cable, Copper).
 - **Note:** Multi-selection is allowed.

Internet Service Providers

1. **Description:** This filter can be used to show or hide locations by Internet Service Provider in the FCC BDC database reporting active customers in California.

Note: Multi-selection is allowed.

Visual Basemaps

1. **Description:** The basemap filter allows the user to define the underlying view that the data is represented on.

Notes:

- By default, Dark mode is selected.
- Other options include Satellite view, Light mode, and Street view.

Selected Location Card

1. **Description:** When a user selects a location on the map, a detailed view (card) appears with information specific to that location.

2. **Features:**

- **Multiple Locations at a Point:** If a point contains multiple locations, the user will be presented with a list to select the desired location.
- **Challenge Process Change:**
 - If the service status of a location was changed during the challenge process, the card will display:
 - The original service status.
 - A "crossed out" indication of the old designation.
 - An arrow to the new post-challenge designation.
- **Service Status:**
 - For BSLs or CAIs:
 - Unserved
 - Underserved
 - Served
 - Served-Funded
 - If the location is a CAI, a "Community Anchor Institution" tag will be displayed.
- **Entity Name:** If applicable, the name of the entity associated with the location will be provided.

- **Location Details:**

- Address (e.g. 2400 Dawes St, Rancho Cordova, 95670)
- Geo-identifiers (e.g., Census Block, Census Block Groups)
 - Census Block ID consists of 15 digits (e.g. 060670089101005)
 - Census Block Group ID consists of 12 digits (e.g. 060670089101)
- Building Type (as defined by the FCC BDC Fabric, e.g. Residential, Business)
- Unit Count is the total number of individual residential or business units in a specific broadband serviceable location (e.g. A building with 10 apartments will have a Unit Count of 10 for that location).

- **Provider List:**

- Shows which Internet Service Providers (ISPs) have service available to the location (e.g. Comcast, Viasat).
- Displays the best available download and upload service speeds (e.g. 100 Mbps download, 5 Mbps upload), technology type (e.g. Unlicensed Fixed Wireless, GSO Satellite) and service type (e.g. Residential, Business) for each ISP.

This final section completes the CPUC BEAD Map Data Dictionary, providing a comprehensive overview of all the data elements and functionalities available on the map.