CALIFORNIA ADVANCED SERVICES FUND

Infrastructure Account Workshop

July 25th, 9:30am – 4:00pm

Sacramento, California EPA

1001 I St, Sierra Hearing Room

Presentation Agenda

9:30	Welcome and Introductions – Commissioner Guzman Aceves
10:00	Eligibility and Challenges – Rob Wullenjohn, Program Manager
10:45	Funding Criteria Determination- Tom Glegola, Supervisor
11:30	Community Prioritization – Caleb Jones, Analyst
12:15	Lunch
1:30	CASF and the Connect America Fund – Rob Osborn, Senior Analyst
2:15	Middle-Mile Infrastructure – Clover Sellden, Senior Analyst
2:45	Line-Extension Program – Tom Glegola, Supervisor
3:30	Summarizing Discussion and Next Steps – Commissioner Guzman Aceves
4:00	Adjourn

REMOTE PARTICIPATION OPTIONS

Livestream Available At:
https://video.calepa.ca.gov/
Listen Only: 887.692.8578 Participant Code: 7035345

CASF Program Eligibility and "What should be the definition of a served Census Block"

Robert Wullenjohn
Manager; Broadband, Video and Market Branch
Communications Division, CPUC

CASF Program Eligibility Implementation Needs

- Applicants want a definitive map that indicates what census blocks are program eligible (unserved)
- Staff wants definitive criteria and objective measures so that applications can be reviewed expeditiously
- **Current served census block definition:** A census block area is identified as presumptively served if a provider reports availability at least 6 Mbps downstream and 1 Mbps upstream and there are subscriptions reported in the block, and/or for Fixed-wireless, tower propagation shows service availability

Problem 1: Applicants Use the Wireline Availability Map to Determine Eligibility

- Challenge process is relied upon to correct the presumptions depicted on the availability map
- Challenges increase costs to parties
- Challenge process requires consideration of testing and validating, which causes further delays

Problem 2: The Map May Be Overstating Served Status

Many census blocks have very low subscriptions relative to households in the block, which implies that service isn't available to all households or more households would be subscribing.

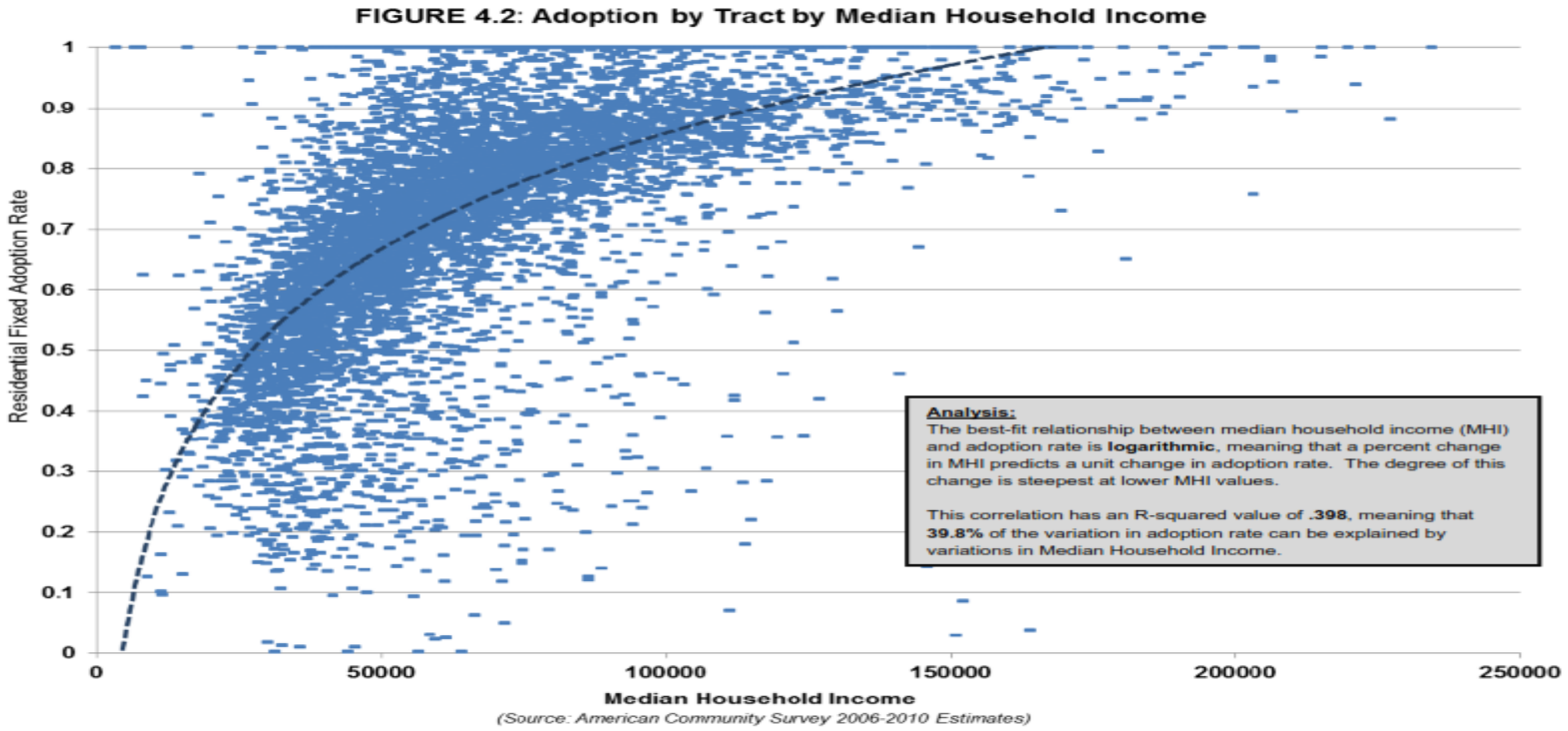
Example: Fixed-Wireless Only Census Blocks

- 262,497 Households
- 64,981 Consumer Connections
- 25% adoption rate
- $41k median income

Statewide Fixed-broadband Census Blocks

- 13,020,413 Households
- 10,867,355 Consumer connections
- 84% adoption rate
- $67k median income

Is low subscription evidence of lack of availability throughout the census block?

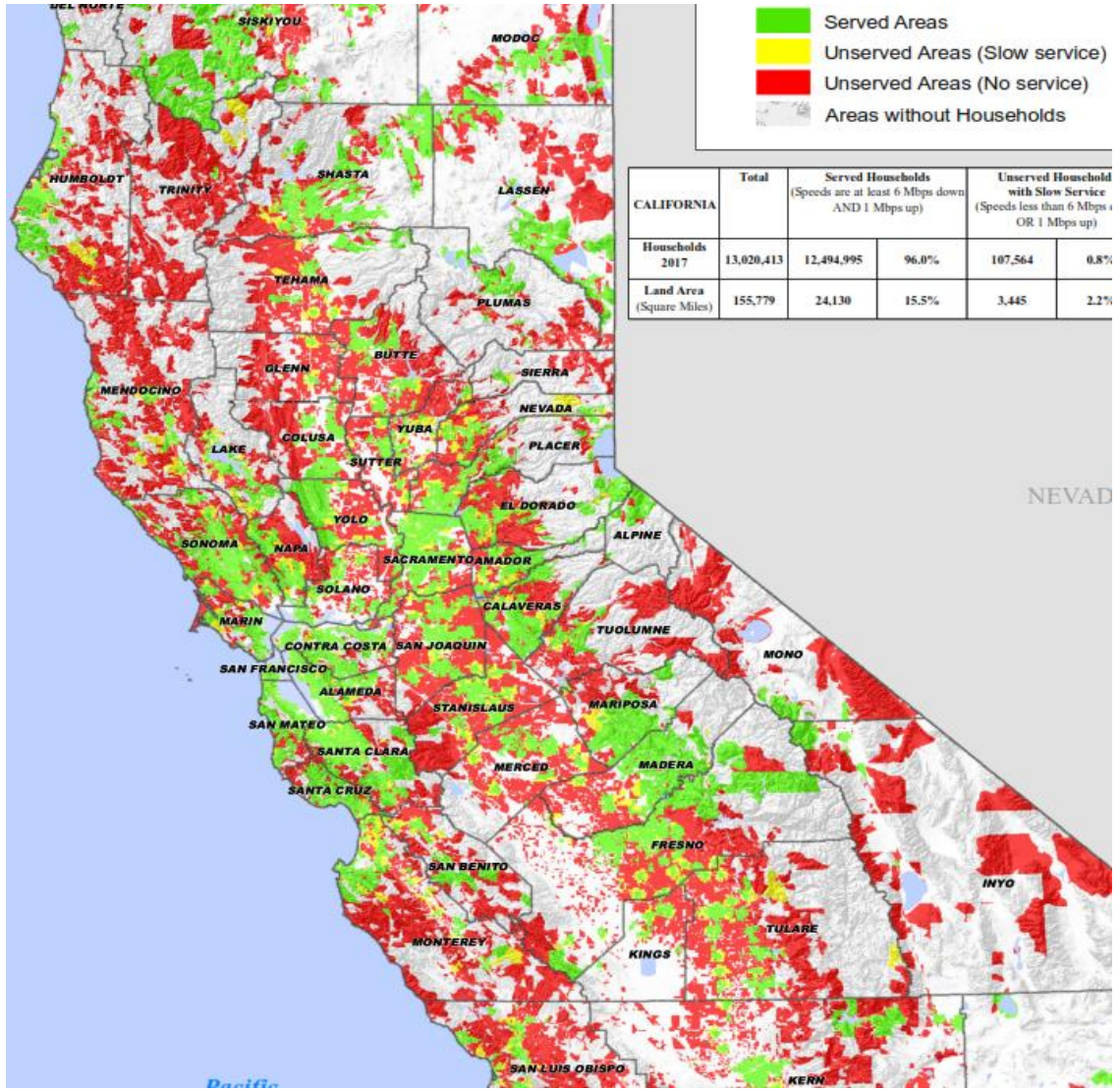


- Availability is a predicate to adoption
- Income is related to adoption (lower in rural areas)
- Price of service affects adoption (higher per bit in rural areas)
- If broadband were ubiquitously available in rural census blocks, what would we expect the adoption rate to be?

Why is this a problem?

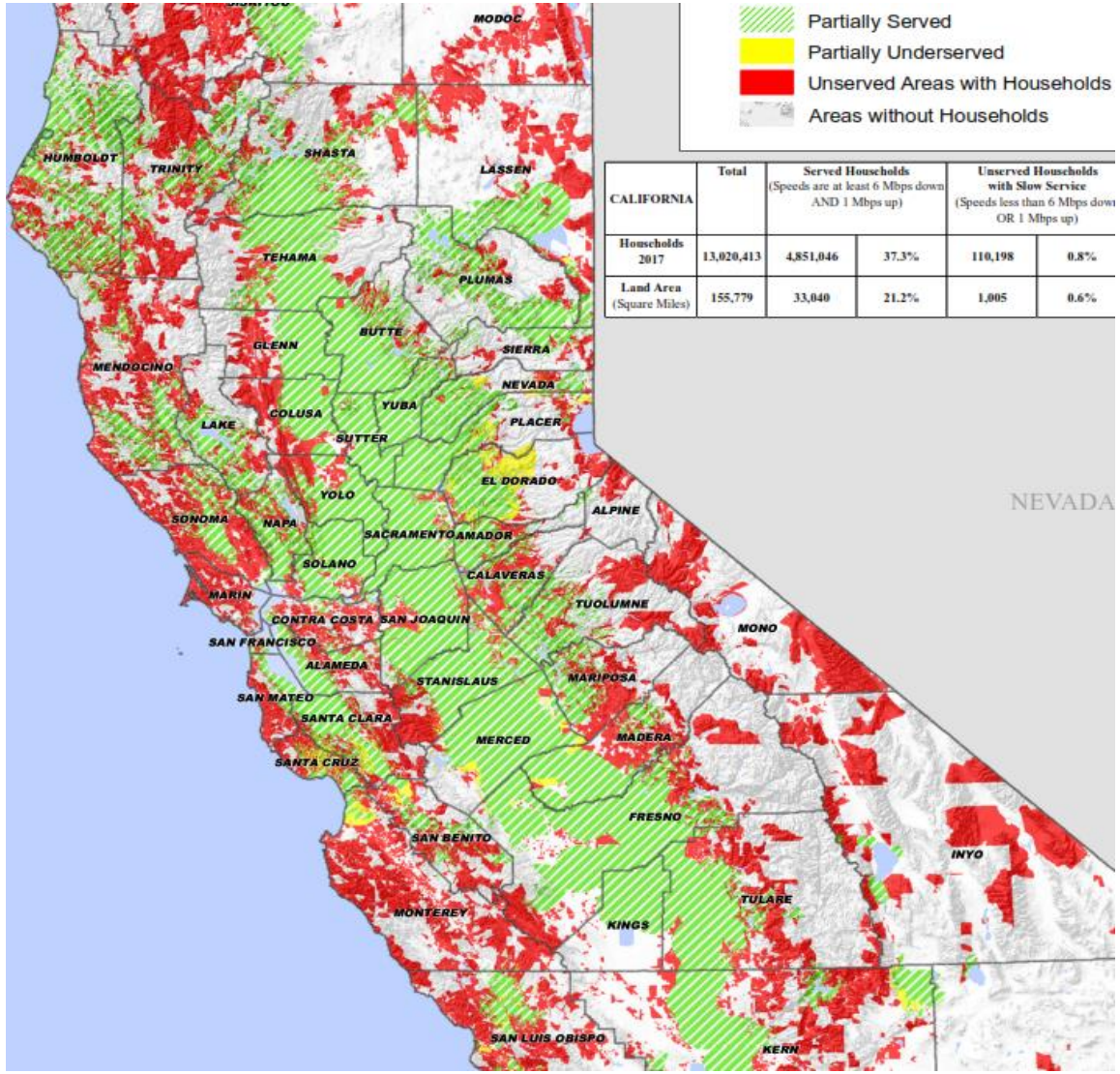
- Example: Fixed-wireless uniquely covers large areas that do not have alternative wireline service available (See maps)
- Given the low-subscription rate, considering these areas as served likely overstates fixed-wireless availability thereby understating areas in need of broadband (See Consortia table)
- Therefore, large areas remain CASF ineligible (most of California is served according to definitions)

Wireline Broadband Served Areas in California



CALIFORNIA	Total	Served Households (Speeds are at least 6 Mbps down AND 1 Mbps up)		Unserved Household with Slow Service (Speeds less than 6 Mbps OR 1 Mbps up)	
Households 2017	13,020,413	12,494,995	96.0%	107,564	0.8%
Land Area (Square Miles)	155,779	24,130	15.5%	3,445	2.2%

Fixed-Wireless Broadband Served Areas Cover Large Areas



CALIFORNIA	Total	Served Households (Speeds are at least 6 Mbps down AND 1 Mbps up)		Unserved Households with Slow Service (Speeds less than 6 Mbps down OR 1 Mbps up)	
Households 2017	13,020,413	4,851,046	37.3%	110,198	0.8%
Land Area (Square Miles)	155,779	33,040	21.2%	1,005	0.6%

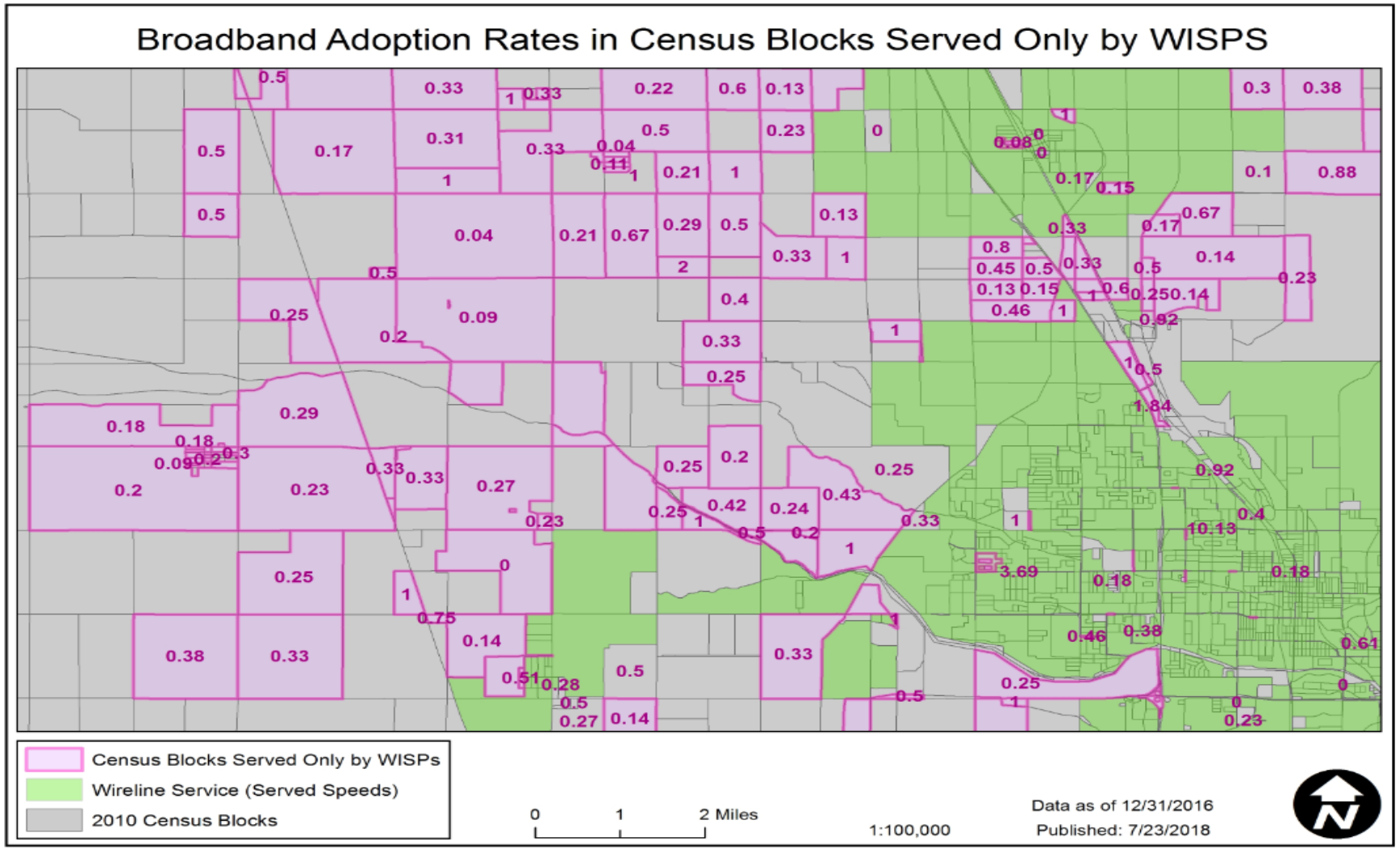
Broadband Availability Changes with Consideration of Fixed-Wireless

Where Speeds Are At Least 6 Mbps downstream and 1 Mbps Upstream	Wireline Served Households	Total Fixed Served Households
Consortium		
Bay Area (no consortium: SF, San Mateo and Santa Clara)	98.4%	99.8%
Broadband Consortium of the Pacific Coast	95.6%	96.5%
Central Coast Broadband Consortium	91.2%	93.2%
Central Sierra Connect Consortium	77.9%	95.1%
Connected Capital Area BB Consortium	96.9%	99.8%
East Bay Broadband Consortium	98.5%	99.4%
Eastern Sierra Connect Regional Broadband Consortium	81.7%	85.5%
Gold Country BB Consortium	84.4%	98.4%
• Tahoe Basin Project	93.1%	93.7%
Inyo / Mono Broadband Consortium	72.7%	75.1%
Inland Empire Regional BB Consortium	96.0%	96.3%
Los Angeles County Regional Broadband Consortium	98.8%	98.9%
North Bay / North Coast Broadband Consortium	94.1%	96.4%
Northeast California Connect Consortium	82.5%	97.2%
Orange County (no consortium)	96.4%	96.5%
Redwood Coast Connect Consortium	77.0%	94.6%
San Joaquin Valley Regional Broadband Consortium	92.5%	98.9%
Southern Border Broadband Consortium	96.1%	96.7%
Upstate California Connect Consortium	80.9%	95.9%

Example of How Low the Subscription Rate Is Relative to Claimed Served Areas Having Assumed Ubiquitous Availability

Grey and Purple are claimed fixed-wireless served areas

Purple areas denote having subscribers and rate of subscription



Solution Affecting All Technologies?

- **Establish a single eligibility map incorporating fixed-technologies and reduce challenge opportunities**

- **Revise served census block definition to reduce overstatement of availability:** A census block area is identified as presumptively served if a provider reports availability at least 6 Mbps downstream and 1 Mbps upstream and there are substantial subscriptions reported in the block (> 40% adoption rate) ~~and/or for Fixed-wireless, tower propagation shows service availability~~

Funding Criteria Determination

Tom Glegola, Supervisor

Funding Criteria Res T-17613 & T-17614

Criteria	Lytle Creek	Desert Shores
Baseline Funding – 60% All CASF-eligible projects receive 60% funding, maintaining continuity with previous rules (D. 14-02-018 and T-17443).	**60% Funding**	**60% Funding**
Service Level Preference – 10% CASF projects in areas with only dial-up or no Internet service must receive preference, per Section 281(b)(2)(B)(i); this is consistent with previous rules.	**0% Funding** Mobile service.	**0% Funding** Mobile service.
Location and Accessibility – 10% As per Section 281(f)(13), "The Commission shall… consider… the location and accessibility of the area."	**10% Funding** Located in a canyon inside a National Forest	**10% Funding** Located in the Sonoran Desert, far from cities.
Existing Infrastructure – 10% As per Section 281(f)(13), "The Commission shall… consider… the existence of communication facilities that may be upgraded to deploy broadband."	**10% Funding** Will use existing infrastructure.	**10% Funding** Will use existing infrastructure.
Significant Contribution – 10% As per Section 281(f)(13), "The Commission shall… consider… whether the project makes a significant contribution to achievement of the program goal."	**0% Funding** Not on High-Impact or High-Priority lists.	**10% Funding** On High-Impact and High Priority lists.
Total – 100% Available	**80% Funding**	**90% Funding**

Frontier Proposed Criteria

- Lack of Existing Service
- Uses Existing Facilities
- Geographic Location
- Public Health Benefits
- No Business Case
- Public Safety Benefits
- No Federal Funding
- Improved Fire Safety
- Low-Income


FRAP
STATE OF CALIFORNIA
DRAFT
FIRE HAZARD
SEVERITY ZONES
IN LOCAL RESPONSIBILITY AREA
Fire Hazard Severity Zones
LRA Very High
LRA High
LRA Moderate
LRA Unzoned
Other Very High
Other High
Other Moderate
Other Unzoned
OREGON
Eureka
Redding
Sacramento
San Francisco
Fresno
Bakersfield
Los Angeles
San Diego
NEVADA
ARIZONA
MEXICO
PACIFIC OCEAN

Potential Funding Criteria

Criteria	Percent
Baseline – Eligible	60%
Service Level Preference	?
Location and Accessibility	?
Existing Infrastructure	?
Significant Contribution – Appears on a Priority List? > 500 HHs?	?
Others – Low-Income? Higher Speeds?	?

Community Prioritization

Caleb Jones, Analyst

The Current System

- Eligible Projects
- Scoring Criteria
  - Funds/Customer: 35
  - Speed: 20
  - Financial Viability: 15
  - Pricing: 10
  - Households: 5
  - Timeliness: 5
  - Guaranteed Pricing: 5
  - **Low-income Areas: 5**

- Interim Funding Criteria
  - Eligible Projects: 60%
  - Dial-up Only: 10%
  - Uses Existing Infrastructure:10%
  - Inaccessible Location: 10%
  - **Makes Significant Contribution: 10%**

Staff Proposals

- Provide Expedited Review to low-cost projects in priority-areas.
- Provide additional funding to priority areas.
- Increase the significance of low-income areas served in the scoring criteria, at the expense of speed.

Which Communities to Prioritize

- Which census blocks, census tracts or communities should be considered priorities?
  - Which criteria should be used for determining priority-communities? If so, how should those criteria be defined?
  - Are there processes for determining priority-areas that you would like to suggest? How does it compare to the methods used by the Commission in Resolutions T-17443 (June 26, 2014) and Staff's High Impact Analysis (May 25, 2017)?
  - Are there specific communities you would like to suggest?

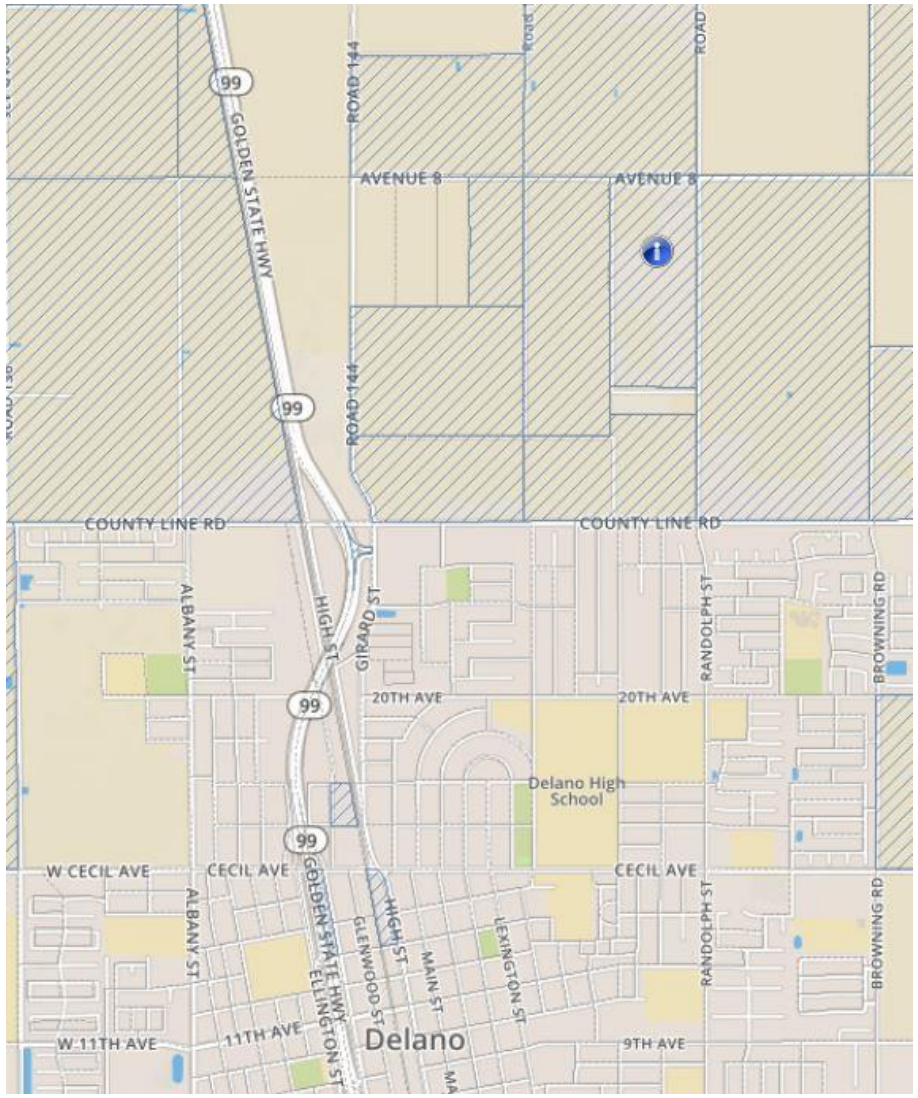
How to Serve Priority Communities

- How should the Commission treat priority areas?
  - Should these priority areas be eligible for expedited review?
    - If so, what should the maximum costs/household be for expedited review?
    - Should priority-communities need to be low-income? If not, should priority-communities need to be low-income to receive expedited review?
  - Should these priority areas receive higher funding levels?
    - Should this be the basis for determining which projects make a “significant contribution?”
    - How much funding should priority-communities receive?
  - Should priority areas receive more points in the scoring criteria?

CASF and the Connect America Fund

Rob Osborn, Senior Analyst

Q: What would it take for AT&T to provide CAF II-level service to all 24 households?

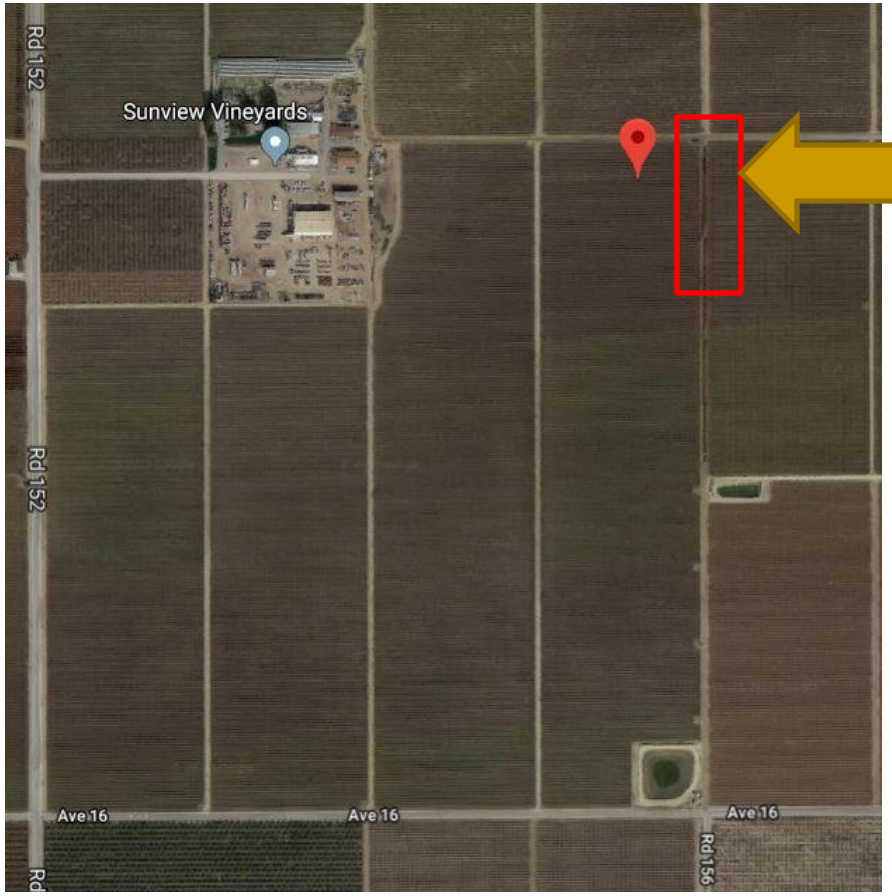


Census Blocks 2010	
Census Block Square Mileage:	0.153018
Full FIPS / Census Block Code:	061070043003275
Census Block Population 2010:	89
Census Block Households 2010:	24
Primary Service:	Unserved
Average Downstream Speed (Mbps):	1.884
Average Upstream Speed (Mbps):	0.692
Number of Providers:	1
Population Density 2010:	581.630886

6 CAF II eligible locations in this census block

CAFII CAM43 Supported Locations	
GEOID10:	061070043003275
TRACTID10:	004300
ShortName:	ATT
CBFunded:	Yes
Locations:	6
TelcoServed:	6
TelcoUnserved:	0

Satellite View



Relevant CAF II language (AB 1665)

(C) (i) Except as provided in clause (ii), until July 1, 2020, the project is not located in a census block where an existing facility-based broadband provider has accepted federal funds for broadband deployment from Phase II of the Connect America Fund, unless the existing facility-based broadband provider has notified the commission before July 1, 2020, that it has completed its Connect America Fund deployment in the census block.

(ii) An existing facility-based broadband provider is eligible for a grant pursuant to this subdivision to supplement a grant pursuant to Phase II of the Connect America Fund to expand broadband service within identified census blocks, as needed.

(12) A grant from the Broadband Infrastructure Grant Account shall not include funding for costs of broadband infrastructure already funded by the Connect America Fund program or other similar federal public program that funds that infrastructure. This paragraph does not apply to funding from the federal high-cost support programs that support operations, including High Cost Loop Support (HCLS), Connect America Fund-Broadband Loop Support (CAF-BLS), or the Alternative Connect America Cost Model (A-CAM).

Middle-Mile Infrastructure

Clover Sellden, Senior Analyst

Middle-Mile Infrastructure

- From PU Code Section 281 (f)(5)(B)

  All or a significant portion of the project deploys last-mile infrastructure to provide service to unserved households. Projects that only deploy middle-mile infrastructure are not eligible for grant funding. For a project that includes funding for middle-mile infrastructure, the commission shall verify that the proposed middle-mile infrastructure is indispensable for accessing the last-mile infrastructure.

Middle-Mile Infrastructure

1. How do we determine if building Middle-Mile infrastructure is indispensable in a project/proposal?
2. Under what circumstances does a project absolutely need to build Middle-Mile infrastructure?

Line Extension Program

Tom Glegola, Supervisor

Questions

- What costs should be covered?
- Limits based on cost or length of extension?
- Components of a fixed wireless extension?
- Can an ISP apply on behalf of property owner?

Summarizing the Discussion and Next Steps

Commissioner Guzman Aceves