

BEAD Initial Proposal Volume 1

Draft for Public Comment

MESSAGE from the Director:

Governor Tate Reeves signed the BEAM Act into law on April 13, 2022, creating the first state broadband office in Mississippi. The Broadband Expansion and Accessibility of Mississippi (BEAM) office is charged with administering federal broadband funding, mapping all unserved and underserved locations, and serves as a single point of contact for broadband policy for the State. Miss. Code Ann. §77-19-7.

The Broadband Equity, Access, and Deployment program (BEAD) program was established by the Infrastructure Investment and Jobs Act of 2021 and allocated over \$42 billion for the construction of broadband networks and other activities designed to close the digital divide in each state. In June of 2023, Mississippi was allocated \$1.2 billion of the total BEAD funding. BEAM now releases its draft of Volume 1 of Mississippi's Initial Proposal as required by the BEAD program.

BEAM asks all stakeholders to review this draft proposal and provide constructive feedback during a 30-day public comment period. The contents of Volume 1 were defined by the National Telecommunications and Information Administration (NTIA), the federal agency overseeing the BEAD funding and can be found at BroadbandUSA.gov. As required, Volume 1 contains listings of existing broadband funding, unserved and underserved locations, community anchor institutions, and an explanation of a challenge process for non-profits, units of local and Tribal government, and internet service providers.

The listing of all unserved and underserved locations in Mississippi is included in a rather technical appendix to Volume 1. Recognizing the difficulty in accessing this information, BEAM is simultaneously publishing an online, searchable map that reflects all locations and their service status. The BEAD Map also shows locations that already have federal funding awarded and are in the process of a buildout program. BEAM will update this map to include Capital Projects Fund Awards and other modifications described in this document, after Volume 1 is approved. BEAM invites all stakeholders to visit this map at either Beam.ms.gov or Broadbandms.com.

Community Anchor Institutions such as hospitals, schools, universities, and governmental entities are the backbone of our communities. Under NTIA rules, service to community anchor institutions (CAI) may be funded through BEAD if the State proves that funding is available for unserved and underserved residential locations first and foremost. BEAM will use the listing of CAIs required by Volume 1 to determine if any remain unserved or underserved and if funding is appropriate.



For the required challenge process, BEAM closely followed the recommendations of NTIA. BEAM has designed a fair and transparent challenge process to determine service availability. Participation by all stakeholders in the challenge process will be key in finalizing the listing of unserved and underserved locations prior to awarding funding under BEAD. The challenge process will be undertaken after NTIA approval of Volume 1.

Providing broadband service to all Mississippians is a vast undertaking that is vital to the future of our State. BEAM looks forward to hearing comments on Volume I from Mississippi Stakeholders as we work together to close the digital divide.

Sally Doty, Director

Broadband Expansion and Accessibility of Mississippi



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Section 1 – Introduction

Broadband Expansion and Accessibility of Mississippi (BEAM) Office drafted the following sections to meet the requirements for the Broadband Equity Access and Deployment (BEAD) Initial Proposal Volume 1:

- Identification of existing broadband efforts
- Identification of existing unserved and underserved locations
- Identification and application of community anchor institutions
- Detailed challenge process plan

BEAD Initial Proposal Volume 2 will include the remaining sections to complete the Initial Proposal requirements.

Section 1.1 – Existing Broadband Funding

Requirement 3

As documented in the Five-Year Action Plan, the following efforts have been administered by the federal, state, and local government to deploy broadband and close the digital divide within Mississippi, including on Tribal Lands.

In addition to the publicly available data available on awards granted through various federal funding opportunities, BEAM worked directly with broadband providers and local governments to develop a comprehensive documentation on status of existing federal and state broadband funding programs.

An overview of existing broadband funding programs is provided in Table 1.1. A comprehensive breakdown is available in Attachment A: Existing Broadband Funding Sources Template.xlsx

Table 1 - Existing Broadband Funding by Program

	Broadband I Total for	Funding S · Mississi		
Source	Recipients	Purpose	Total	Expended
American Rescue Plan State and Local Fiscal Recovery Funds (ARPA-SLFRF)	Madison and Desoto Counties	Access	\$4,892,496	Allocated by counties for Capital Projects Fund



Source	Recipients	Purpose	Total	Expended
Coronavirus Aid, Relief, and Economic Security Act (CARES)	Desoto, Marshall, Tippah, Benton, Alcorn, Tishomingo, Prentiss, Lee, Union, Pontotoc, Lafayette, Clay, Panola, Jones, Quitman, Monroe, Webster, Calhoun, Carroll, Grenada, Choctaw, Kemper, Lauderdale, Tate, Perry, and Pearl River Counties	Access	\$75,000,000	Expended
E-Rate Program	Statewide	Access, Devices	\$158,070,331	Amount expended from 2019-2023; ongoing program
FCC A-CAM	Statewide	Access	\$115,022,170	Amount expended from 2017-2023; ongoing program
FCC A-CAM II	Statewide	Access	\$3,154,007	Amount expended from 2020 - 2023; ongoing program
FCC Affordable Connectivity Program (ACP)	Statewide	Devices, Affordability	\$104,413,307	Expended
FCC Affordable Connectivity Outreach Grant	State of Mississippi, the University of Mississippi, Strategic Solutions for Families, Inc., Mississippi Center for Justice, and Family Wellness Outreach Center of MS, Inc.	Devices, Access, Affordability	\$1,800,000	Available
FCC Broadband Loop Support	Statewide	Access	\$7,593,363	Amount expended from 2017 - 2023; ongoing program



Source	Recipients	Purpose	Total	Expended
FCC Connect America Fund (CAF II)	Statewide	Access	\$1,722,986	Amount expended from 2020 - 2023; ongoing program
FCC Connected Care Pilot Program	The University of Mississippi Medical Center, Covington County Hospital	Access	\$2,540,735	One-time amount awarded in 2021
FCC Covid-19 Telehealth Award	Statewide	Access	\$5,422,440	One-time award
FCC Emergency Broadband Benefit Program (EBB)	Statewide	Access, Devices	\$24,669,737	Expended
FCC Emergency Connectivity Fund	Statewide	Access, Devices	\$13,507,778	Expended
FCC Lifeline	Statewide	Affordability	\$47,529,265	Expended
FCC Rural Digital Opportunity Fund (RDOF)	Statewide	Access	\$428,001,760 awarded to Mississippi	\$73,806,751 expended to date; Ongoing commitment from FCC
FCC Rural Health Care Program	Statewide	Access	\$63,351,823	Expended
Mississippi Wireless Information Network (MSWIN)	Statewide	Access	\$17,000,000	Expended
NTIA Broadband Infrastructure Program (BIP)	Smith, Lincoln, Issaquena, Franklin, Madison, Covington, Calhoun, Pearl River, Tunica, and Coahoma Counties	Planning, Access	\$32,700,000	\$8,500,000
NTIA Tribal Broadband Connectivity Program (TBCP)	Mississippi Band of Choctaw Indians	Access	\$8,433,633	Expended
USDA Reconnect	Bolivar, Smith, Newton, Tunica, Humphreys, Washington, Scott Counties	Access	\$65,973,009	Amount awarded to date; ongoing program



Section 1.2 - Unserved and Underserved Locations

Requirement 5

a. 1.2.1 – Identifying Unserved and Underserved Locations

The State of Mississippi defines broadband service as mass-market retail service by wire. cable, fiber, or radio provided to customers in the State of Mississippi that provides the capability to transmit data to, and receive data from, all or substantially all Internet endpoints, at speeds of at least one hundred (100) megabits per second downstream and twenty (20) megabits per second upstream, and including, but not limited to, any capabilities that are incidental to and enable the operation of communications service, but excluding dial-up Internet access service.1

For the purposes of the BEAD program, BEAM will use the following definition as required by the NTIA:

- **Unserved Locations:** a broadband-serviceable location that the Broadband DATA Maps show as (a) having no access to broadband service, or (b) lacking access to Reliable Broadband Service offered with—(i) a speed of not less than 25 Mbps for downloads; and (ii) a speed of not less than 3 Mbps for uploads; and (iii) latency less than or equal to 100 milliseconds.
- **Underserved Location:** a broadband-serviceable location that is (a) not an unserved location, and (b) that the Broadband DATA Maps show as lacking access to Reliable Broadband Service offered with—(i) a speed of not less than 100 Mbps for downloads; and (ii) a speed of not less than 20 Mbps for uploads; and (iii) latency less than or equal to 100 milliseconds.
- Reliable Broadband Service: broadband service that the Broadband DATA Maps show is accessible to a location via: (i) fiber-optic technology; (ii) cable modem/hybrid fiber-coaxial technology; (iii) digital subscriber line (DSL) technology; or (iv) terrestrial fixed wireless technology utilizing entirely licensed spectrum or using a hybrid of licensed and unlicensed spectrum.

The unserved and underserved location IDs were identified by applying the definitions outlined in the BEAD Program to the data from the National Broadband Map as of the version downloaded from the NTIA's Eligible Entity Toolkit and identified in Section 1.2.2. The list of locations is available in the following attachments:

- Attachment B: unserved.csv
- Attachment C: underserved.csv

b. 1.2.2 – Publication date of the National Broadband Map

BEAM is required to select the publication date of the National Broadband Map version used to identify the unserved and underserved locations. The publication date of the National Broadband Map cannot predate the submission of the Initial Proposal by more than 59 days. BEAM may elect to use a future version of the National Broadband Map to update the list of unserved and underserved locations.





¹Mississippi Code § 77-19-3

Section 1.3 – Community Anchor Institutions

Requirement 6

c. 1.3.1 – Identifying BEAD Eligible Community Anchor Institutions

Based on the statutory definition of "community anchor institution" as defined in 47 USC 1702 (a)(2)(E), BEAM applied the definition of "community anchor institution" to mean a school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public housing organization (including any public housing agency, HUD-assisted housing organization, or Tribal housing organization), or community support organization that facilitates greater use of broadband service by vulnerable populations, including, but not limited to, low-income individuals, unemployed individuals, children, the incarcerated, and aged individuals.

The following definitions and sources were used to identify the types of community anchor institutions:

- **Schools**: K-12 schools include all K-12 schools participating in the FCC E-Rate program or that have an NCES (National Center for Education Statistics) ID in the categories "public schools" or "private schools".
- **Libraries**: Including all libraries participating in the FCC E-Rate program as well as all member libraries, and their branches, of the American Library Association (ALA).
- Health clinic, health center, hospital, or other medical providers: The list of health clinics, health centers, hospitals, urgent care centers, VA facilities, and other medical providers includes all institutions that have a Centers for Medicare and Medicaid Services (CMS) identifier.
- **Public safety entities**: The list includes entities such as fire houses, emergency medical service stations, police stations, and public safety answering points (PSAP), based on records maintained by the Eligible Entity and units of local government.
- **Institutions of higher education:** Institutions of higher education include all institutions that have an NCES ID in the category "college", including junior colleges, community colleges, minority serving institutions, historically black colleges and universities, other universities, or other educational institutions.
- **Public housing organizations**: Public housing organizations were identified by contacting the Public Housing Agencies (PHAs) for the state or territory enumerated by the U.S. Department of Housing and Urban Development.² The nonprofit organizations Public and Affordable Housing Research Corporation (PAHRC) and National Low-Income Housing Coalition maintain a database of nationwide public housing units at the National Housing Preservation Database (NHPD).
- **Community support organizations:** The State of Mississippi included any organizations that facilitate greater use of broadband service by vulnerable populations, including low-income individuals, unemployed individuals, and aged individuals, including job training centers, senior centers, early childhood education centers, and Tribal anchor institutions.

² PHA Contact Information - HUD | HUD.gov / U.S. Department of Housing and Urban Development (HUD)



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In addition, BEAM plans to use the Initial Proposal Volume 1 public comment process and the BEAD challenge process to ensure that all relevant institutions meeting the CAI criteria are included.

d. 1.3.2 – Assessing CAI Connectivity Needs

To assess the network connectivity needs of the types of eligible community anchor institutions listed above, BEAM:

- **Engaged government agencies.** The broadband office reached out to all Mississippi state agencies to understand what records they have available regarding relevant community anchor institutions 1 Gbps symmetrical broadband service availability. BEAM engaged with the following agencies:
 - Central MS Planning & Development District
 - Hope Credit Union
 - o Lt. Governor's Office
 - Magcor/MDOC Works
 - Mississippi Association of Realtors
 - o Mississippi Automated Resource Information System
 - MS Alliance of Nonprofits and Philanthropy
 - MS Army National Guard
 - o MS Dept. of Information Technology Services
 - o MS Dept. of Archives and History
 - o MS Dept. of Child Protective Services
 - MS Dept. of Corrections
 - o MS Dept. of Employment Security
 - o MS Dept. of Mental Health
 - MS Dept. of Transportation
 - o MS Library Commission
 - o MS Municipal League
 - MS Office of Homeland Security
 - o MS Public Utilities Staff
 - o MS State Treasury
 - MS Veterans Affairs
 - University of Mississippi Medical Center
 - o Wireless Communication Commission
- Engaged relevant umbrella organizations and nonprofits. The broadband office engaged with umbrella and nonprofit organizations that work with community anchor institutions to coordinate and obtain 1 Gbps symmetrical broadband service availability data. Specifically, the broadband office requested information related to availability needs from the following entities:
 - o AARP Mississippi
 - Community Foundation of Northwest Mississippi
 - General Missionary Baptist State Committee of Mississippi
 - Hope Credit Union Hope Policy Institute
 - Mississippi Minority Business Development Agency
 - Mississippi Community College Board
 - Mississippi Institutions of Higher Learning
 - o Mississippi Farm Bureau

In addition, BEAM plans to use the Initial Proposal Volume 1 public comment process and the BEAD challenge process to ensure that all relevant institutions meeting the CAI criteria are included. Using the responses received through direct engagement and



participation in the comment and challenge process, BEAM will compile the list of those CAIs that do not have adequate broadband service.

For CAIs, which are not included in the FCC's Fabric Dataset, BEAM will assign an alternative unique location identifier for the purposes of the challenge process and subgrant implementation, as applicable.

The draft list of CAIs is included in Attachment D: cai.csv.

Section 1.4 – Challenge Process

Requirement 7

NTIA BEAD Model Challenge Process Adoption

e. 1.4.1 – Adoption of NTIA BEAD Model Challenge Process

BEAM will adopt the framework of the NTIA BEAD Model Challenge Process ('Model Process'), including the adoption of the "Optional Modules" provided in the Model. In addition, BEAM has provided modifications and amendments to the Model Process that the Office believes are necessary to ensure the successful implementation and achieve the goals of the BEAD Program.

f. 1.4.2 – Modifications to Reflect Data Not Present in the National Broadband Map

The modifications described in this section will be implemented to modify the classification of reported broadband service offering at applicable locations. In cases where there are multiple service offerings qualifying a location as "served" or "underserved," these modifications may not result in a modification of a location's designation to "unserved" or "underserved." In these cases, BEAM will modify the reported service available at relevant locations to ensure that a location's final designation is determined based on the totality of all modifications and challenge outcomes.³

For example, a location that reported service available from a DSL provider (100/20 Mbps) and a cable provider (1000/35 Mbps) will be subject to the DSL Modification described below. The DSL Modification by itself would not result in a change in designation for that location. However, if during the challenge process, there is a successful challenge to the cable provider not being able to provide service within 10 business days, the totality of the modification and the challenge would result in the location being designated as "underserved."

i.NTIA BEAD Model Challenge Process Modifications

The following modifications are included with the intent of reflecting data that is not included in the National Broadband Map, but are necessary to ensure the successful implementation and achieve the goals of the BEAD Program.

³ For example, if Location Y is considered served by DSL provider A and Licensed Fixed Wireless Provider B, there are two separate reported services that need to be modified or challenged before Location Y can be considered eligible for BEAD funds.



The proposed modifications include the DSL and Speed Test Modifications, as included in the Model Process, as well as additional modifications proposed by BEAM.

1. DSL Modifications

BEAM will treat locations that the National Broadband Map shows to have available qualifying broadband service (i.e., a location that is "served") delivered via DSL as "underserved." This modification will better reflect the locations eligible for BEAD funding because it will facilitate the phase-out of legacy copper facilities and ensure the delivery of "future-proof" broadband service. This designation cannot be challenged or rebutted by the provider.

When a location is shown to have qualifying broadband service reported for multiple providers and/or technologies, the service delivered via DSL will be reclassified, but the classification of location itself will remain served, unless the remaining qualifying broadband service(s) are successfully challenged or reclassified through another modification.

2. Speed Test Modifications

BEAM will treat as "underserved" locations that the National Broadband Map shows to be "served" if rigorous speed test methodologies demonstrate that the "served" locations actually receive service that is materially below 100 Mbps downstream and 20 Mbps upstream.

BEAM will treat as "unserved" locations that the National Broadband Map shows to be "served" or "underserved" if rigorous speed test methodologies demonstrate that the "served" locations actually receive service that is materially below 25 Mbps downstream and 3 Mbps upstream.

This modification will better reflect the locations eligible for BEAD funding because it will consider the actual speeds of locations.

When applicable speed test data is used to reclassify reported service at a location with multiple providers and/or technologies, the service relevant to the speed test will be reclassified and the classification of location itself will be reprocessed with the updated entry.

Locations modified by speed test data will be applied toward qualifying a Census Block Group for an Area Challenge and the challenged provider will have the opportunity to submit a rebuttal during the applicable phase of the challenge process.

ii.Additional Modifications

In addition to the Modifications included in the Model Challenge Process, the BEAM office believes the following modifications are necessary to ensure the successful implementation and achieve the goals of the BEAD Program.

⁴ Mississippi Code § 77-19-3



Rural Electric Co-op Broadband Affiliate Buildout - Fully Deployed Service 1. **Areas**

BEAM will treat as served locations in Rural Electric Co-op Broadband Affiliate service areas with build outs that are fully deployed, or will be completed by Dec. 31, 2023, but are not yet reflected in the FCC National Broadband Map.

FCC Challenge Modifications 2.

BEAM will treat locations that the National Broadband Map shows to be served as unserved or underserved if:

- 1. 6 or more broadband serviceable locations using a particular technology and a single provider within a census block group were subject to successful availability challenges through the Federal Communications Commission's challenge process, and:
- 2. the location would be unserved or underserved if not for the challenged service.

The location's status would change to the status that would have been assigned to the location without the challenged service.5

The following entries in the outcome field will be treated as a successful challenge:

- Challenge Upheld Provider Conceded
- Upheld Service Change
- Challenge Upheld Adjudicated by FCC

At locations where there are multiple offerings of qualifying broadband, the designation of the location will remain unchanged, however the applicable service would be removed from the location.6

A provider subject to the FCC Area Challenge Modification will be given an opportunity to submit a rebuttal during the applicable phase of the challenge process.

Cellular Fixed Wireless Modification 3.

BEAM will treat locations as "unserved" that the National Broadband Map shows to be "underserved" or "served" where cellular fixed wireless (e.g., LTE/4G/5G) is the only reported service satisfying the "underserved" or "served" requirements.

For the purposes of fixed service, cellular networks present several issues to at-home customers, including:

Deprioritization of home Internet plans during periods of network congestion

⁶ Amendment Justification: This modification applies the logic of the area challenge module to challenges already filed through the FCC challenge process. FCC challenges reflect relatively recent cases in which providers and challengers had an opportunity to provide evidence about the service available at a given location, subject to adjudication by a third party (the FCC). Cases in which six FCC challengers were successful in a single census block likely reflect more extensive mapping inaccuracies. In some areas of Mississippi an active community engagement process resulted in successful challenges to a substantial number of locations through the FCC challenge process. Without these modifications, these communities would actually be at a disadvantage in terms of correcting more widespread errors in the state challenge process, as successful FCC challengers would register as "unserved" or "underserved" and could not file a challenge that would count towards an area challenge.



⁵ Challenge records will be taken from broadbandmap.fcc.gov/data-download/challenge-data.

- Network throttling for heavy data users, in which customers that exceed certain levels of bandwidth consumption experience reduced speeds. The thresholds of heavy data use are typically under 600 GB/month, making this consistent with the rationale of the Data Cap challenge and modification.
- Cellular networks, by design, have a significant drop-off of data rates the farther a user is from the source (e.g., tower)

When the Cellular Fixed Wireless Modification is used to reclassify reported service at a location with multiple providers and/or technologies, the service(s) affected by the modification will be reclassified and reprocessed with the updated entry.

Providers may submit rebuttals to the Cellular Fixed Wireless modifications, which must include the following evidence:

- Countervailing speed test evidence showing sufficient speed as described in the Speed Test Module in Section 1.4.6,
- Evidence that there is a tier of plan that is not subject to deprioritization, and;
- Evidence that there is a tier of plan that is not subject to usage-based throttling, below 600 GB/month.

4. Data Cap Modifications

BEAM will treat as "unserved" locations that the National Broadband Map shows to be "underserved" or "served" if there is evidence that demonstrates that the service is only available over plans that impose an unreasonable capacity allowance, or "data cap" (less than 600 GB/month), on the consumer.

When the Data Cap Modification is used to reclassify reported service at a location with multiple providers and/or technologies, the service(s) affected by the modification will be reclassified and the classification of location itself will be reprocessed with the updated entry.

Deduplication of Funding

g. 1.4.3 – BEAD Eligible Entity Planning Toolkit

BEAM will adopt the BEAD Eligible Entity Planning Toolkit for the deduplication of funding programs.⁷

h. 1.4.4 – Deduplication Process

BEAM will enumerate locations subject to enforceable commitments by using the BEAD Eligible Entity Planning Toolkit, and consult at least the following data sets:

- 1. The Broadband Funding Map published by the FCC pursuant to IIJA § 60105.
- 2. Data sets from state broadband deployment programs that rely on funds from the Capital Projects Fund and the State and Local Fiscal Recovery Funds administered by the U.S. Treasury.
- 3. Mississippi and local data collections of existing enforceable commitments or obligations.

⁷ Use of the NTIA Eligible Entity Planning Toolkit for deduplication of funding as described is 1.4.3 is subject to the availability of the Deduplication tool prior to the initiation of the Challenge Process. If the Toolkit is not available with sufficient lead time, BEAM will pull the data directly from the Broadband Funding Map and from state and local programs, including those administered by U.S. Treasury.



BEAM will make a best effort to create a list of BSLs subject to enforceable commitments based on state/territory or local grants or loans. If necessary, the broadband office will translate polygons or other geographic designations (e.g., a county or utility district) describing the area to a list of Fabric locations. The broadband office will submit this list, in the format specified by the FCC Broadband Funding Map, to NTIA.8

For existing federal, state, or local funding for broadband deployment on Tribal Lands, only those awards accompanied by a Tribal a legally binding agreement, which includes a Tribal Government Resolution. It is the responsibility of any recipients of an Enforceable Commitment to build-out on Tribal lands to produce the necessary documentation during the public comment period for Initial Proposal Volume 1, or during the Challenge Process itself.

The broadband office will review its repository of existing state and local broadband grant programs to validate the upload and download speeds of existing binding agreements to deploy broadband infrastructure.

In situations in which the state or local program did not specify broadband speeds, or when there was reason to believe a provider deployed higher broadband speeds than required the broadband office will reach out to the provider to verify the deployment speeds. For service that was already deployed. The broadband office will document this process by requiring providers to sign a binding agreement certifying the actual broadband deployment speeds deployed.

The broadband office drew on these provider agreements, along with its existing database on state and local broadband funding programs' binding agreements, to determine the set of Mississippi and local enforceable commitments.

i. 1.4.5 – Deduplication Programs

The list of the federal, state, and local programs that will be analyzed to remove enforceable commitments from the set of locations eligible for BEAD funding, see Table 1 in Section 1.1.

Challenge Process Design

j. 1.4.6 - Evidence-Based, Fair, Transparent, and Expeditious Challenge Process

Based on the NTIA BEAD Challenge Process Policy Notice, as well as BEAM's dedication to the goals of the BEAD program, the process outlined in this proposal represents a transparent, fair, expeditious, and evidence-based challenge process.

i.Permissible Challenges

The broadband office will only allow challenges on the following grounds:

The identification of eligible community anchor institutions, as defined by BEAM9,

⁹ See Section 1.3.1



⁸ Guidance on the required format for the locations funded by state or territorial and local programs will be specified at a later date, in coordination with FCC.

- Community anchor institution BEAD eligibility determinations¹⁰.
- BEAD eligibility determinations for existing broadband serviceable locations (BSLs),
- Enforceable commitments, or
- Planned service¹¹

ii.Permissible Challengers

During the BEAD Challenge Process, the broadband office will only allow challenges from nonprofit organizations, units of local and tribal governments, and broadband service providers.

iii.Challenge Process Overview

The challenge process conducted by the broadband office will include four phases, spanning 90 calendar days.

If necessary, the broadband office will work with challengers and respondents to align submissions with the appropriate challenge type and the requisite data specifications.

- 1. **Publication of Eligible Locations**: Prior to beginning the Challenge Phase, the broadband office will publish the set of locations eligible for BEAD funding, which consists of the locations resulting from the activities outlined in Sections 5 and 6 of the NTIA BEAD Challenge Process Policy Notice (e.g., administering the deduplication of funding process). The office will also publish locations considered served, as they may be challenged.
 - a. **Timeline:** BEAM tentatively plans to publish the locations on November
- Challenge Phase: During the Challenge Phase, Permissible Challengers will be able to submit the challenge through the broadband office challenge portal. Prior to submitting a challenge, the challenger will be required to register in the portal. The registration process will confirm that the email address is reachable by sending a confirmation message to the listed contact. All registrations are subject to BEAM verification.

The portal will notify the providers by email of any challenges received against their service availability or performance, which will include related information about timing for the provider's response. After this stage, the location will enter the "challenged" state.

Details on the challenges against service providers (A, S, L, D, T, B, N)¹² will be made available to the service provider whose service availability and performance is being contested, while protecting proprietary information and personally identifiable information (PII).

¹² As described in Table 2



¹⁰ See Section 1.3.2

¹¹ The Planned Service category of challenge includes existing service that has already been deployed, but is not yet reflected in the FCC National Broadband Map

Details on other challenge types (E, P, C, R)¹³ will be made available to all Permissible Challengers, while protecting proprietary information and personally identifiable information (PII).

- a. **Minimum Level of Evidence Sufficient to Establish a Challenge:** The challenge portal will verify that:
 - i. the challenged location exists in the Fabric and is a BSL
 - ii. the challenged service is listed in the National Broadband Map
 - iii. the challenged service meets the definition of reliable broadband service
 - iv. the quality of evidence is sufficient to enable optical character recognition (OCR), if applicable

The broadband office will manually verify that the evidence submitted falls within the categories stated in the Model Process and that document is unredacted and dated, as applicable.

- b. **Timeline**: Challengers will have 30 calendar days to submit a challenge from the initial list of served, unserved, and underserved locations, community anchor institutions, and existing enforceable commitments. The challenge phase is tentatively planned to run from November 15, 2023 December 14, 2023
- 3. **Rebuttal Phase**: For challenge types A, S, L, D, T, B, and N¹⁴, only the challenged service provider may rebut the reclassification of a location or area with evidence, causing the location or locations to enter the "disputed" state. If a challenge that meets the minimum level of evidence is not rebutted, the challenge will be sustained. A provider may also agree with or concede the challenge and thus transition the location to the "sustained" state. Providers must regularly check email and their designated user account for notifications and information on all submitted challenges.

For challenge types E, P, C, and R¹⁵, any Permissible Challenger may file a rebuttal and multiple rebuttals may be submitted. For these challenge types, BEAM will evaluate the evidence submitted by the challenger and any rebuttal(s) after the 30-day Rebuttal window. However, a lack of rebuttal will automatically transition the location to the "sustained" state.

- a. **Minimum Level of Evidence Sufficient for Rebuttal:** The challenge portal will verify that:
 - i. the rebuttal data is related to the challenged location
 - ii. relevant affidavits are submitted, as applicable
 - iii. the quality of evidence is sufficient to enable optical character recognition (OCR)

The broadband office will manually verify that the evidence submitted meets the requirement within the categories stated in the Model Process and that documentation is dated and as unredacted as possible.

b. **Timeline**: Providers will have 30 calendar days from notification of a challenge to provide rebuttal information to the broadband office.

¹⁵ As described in Table 2



¹³ As described in Table 2

 $^{^{14}}$ As described in Table 2

- c. The rebuttal phase is tentatively planned to run from November 15, 2023 January 16, 2024
- 4. **Final Determination Phase**: During the Final Determination phase, the broadband office will fully review the evidence submitted in each challenge and rebuttal. Based on the evidence, BEAM will make the final determination of the classification of the location, either declaring the challenge "sustained" or "rejected." If necessary, BEAM may choose to request additional evidence from the challenger and rebuttal submitter.
 - a. **Timeline**: Following intake of challenge rebuttals, the broadband office will make a final challenge determination within 30 calendar days of the challenge rebuttal. Reviews will occur on a rolling basis, as challenges and rebuttals are received. Final Determinations will be made no later than February 17, 2024.

iv.Evidence & Review Approach

To ensure that each challenge is reviewed and adjudicated based on fairness for all participants and relevant stakeholders, BEAM will review all applicable challenge and rebuttal information in detail without bias, before deciding to sustain or reject a challenge. BEAM will document the standards of review to be applied in a Standard Operating Procedure and will require reviewers to document their justification for each determination. This documentation will be captured directly through the review interface in the challenge portal.

BEAM plans to ensure reviewers have sufficient training to apply the standards of review uniformly to all challenges submitted. BEAM will also require that all reviewers submit affidavits to ensure that there is no conflict of interest in making challenge determinations.

Table 2 - Challenge Types and Evidence

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
A	Availability	The broadband service identified is not offered at the location, including a unit of a multiple dwelling unit (MDU).	 Screenshot of provider webpage. A service request was refused within the last 365 days (e.g., an email letter, or written account of a conversation with a provider). Lack of suitable infrastructure (e.g., no fiber on pole), including evidence such as demonstration that current spectrum holdings, nodes, backbone, and towers (including location and loading constraints) are 	 The provider shows that the location subscribes or has subscribed within the last 365 days, e.g., with a copy of a customer bill and attests that there is no waitlist or delay greater than 10 days for connecting new or returning customers. The provider submits evidence that service is now available as a standard installation, e.g., via a copy of an offer sent to the



Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
			insufficient to support all of the claimed locations.	location.
A	Availability (continued)	The broadband service identified is not offered at the location, including a unit of a multiple dwelling unit (MDU).	 A letter, email, or written account of a conversation with a provider dated within the last 365 days that a provider failed to schedule a service installation or offer an installation date within 10 business days of a request.¹⁶ A letter, email, or written account of a conversation with a provider dated within the last 365 days indicating that a provider requested more than the standard installation fee to connect this location or that a Provider quoted an amount in excess of the provider's standard installation charge in order to connect service at the location. Evidence that demonstrates that the service is only available via plans where the speeds of the broadband service are throttled in favor of another category of customer (e.g., LTE/5G networks where mobile connections are prioritized over fixed wireless connections). Evidence that demonstrates that the service is only available via plans with usage-based throttling, below a 	 The provider submits network diagrams and/or propagation maps that show evidence of infrastructure and coverage. Evidence of network capacity Evidence that the challenged provider of Cellular Fixed Wireless Access (FWA) does not throttle, or prioritize mobile customers over, home Internet customers. Evidence that demonstrates that the provider provides a plan that is not subject to usage-based throttling, below a threshold of 600 GB/month in line with the data cap challenge type.

¹⁶ A standard broadband installation is defined in the Broadband DATA Act (47 U.S.C. § 641(14)) as "[t]he initiation by a provider of fixed broadband internet access service [within 10 business days of a request] in an area in which the provider has not previously offered that service, with no charges or delays attributable to the extension of the network of the provider."



Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
			threshold of 600 GB/month in line with the data cap challenge type.	
S	Speed	The actual speed of the service tier falls below the unserved or underserved thresholds. ¹⁷	Speed test by subscriber, showing the insufficient speed and meeting the requirements for speed tests within the past 180 days.	Provider has countervailing speed test evidence showing sufficient speed, e.g., from their own network management system. ¹⁸
L	Latency	The round-trip latency of the broadband service exceeds 100 ms ¹⁹ .	Speed test by subscriber, showing the excessive latency within the past 180 days.	Provider has countervailing speed test evidence showing latency at or below 100 ms, e.g., from their own network management system or the CAF performance measurements. ²⁰
D	Data cap	The only service plans marketed to consumers impose an unreasonable capacity allowance ("data cap") on the consumer. ²¹	 Screenshot of provider webpage. Service description provided to the consumer. 	Provider has terms of service showing that it does not impose an unreasonable data cap or offers another plan at the location without an unreasonable cap.

²¹ An unreasonable capacity allowance is defined as a data cap that falls below the monthly capacity allowance of 600 GB listed in the FCC 2023 Urban Rate Survey (FCC Public Notice DA 22-1338, December 16, 2022). Alternative plans without unreasonable data caps cannot be business-oriented plans not commonly sold to residential locations. A successful challenge may not change the status of the location to unserved or underserved if the same provider offers a service plan without an unreasonable capacity allowance or if another provider offers reliable broadband service at that location.



¹⁷ The challenge portal has to gather information on the subscription tier of the household submitting the challenge. Only locations with a subscribed-to service of 100/20 Mbps or above can challenge locations as underserved, while only locations with a service of 25/3 Mbps or above can challenge locations as unserved. Speed challenges that do not change the status of a location do not need to be considered. For example, a challenge that shows that a location only receives 250 Mbps download speed even though the household has subscribed to gigabit service can be disregarded since it will not change the status of the location to unserved or underserved.

¹⁸ As described in the NOFO, a provider's countervailing speed test should show that 80 percent of a provider's download and upload measurements are at or above 80 percent of the required speed. *See Performance Measures Order*, 33 FCC Rcd at 6528, para. 51. *See* BEAD NOFO at 65, n. 80, Section IV.C.2.a.

 $^{^{19}}$ Performance Measures Order, including provisions for providers in non-contiguous areas (§21). 20 Ibid

Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
Т	Technology 22	The technology indicated for this location is incorrect.	Manufacturer and model number of residential gateway (CPE) that demonstrates the service is delivered via a specific technology.	Provider has countervailing evidence from their network management system showing an appropriate residential gateway (CPE) that matches the reported service.
В	Business service only	The location is residential, but the service offered is marketed or available only to businesses.	 Screenshot of provider webpage. A letter, email, or written account of a conversation with a provider dated within the last 365 days indicating that a provider only offers business service at the location 	Provider documentation that the service listed in the BDC is available at the location and is marketed to consumers. Providers must sign an affidavit confirming residential service is available with no waitlist or delay greater than 10 days for connecting new customers.
Е	Enforceable Commitment	The challenger has knowledge that broadband will be deployed at this location by the date established in the deployment obligation.	Enforceable commitment by service provider (e.g., authorization letter). In the case of Tribal Lands, the challenger must submit the requisite legally binding agreement between the relevant Tribal Government and the service provider for the location(s).	Documentation that the provider has defaulted on the commitment or is otherwise unable to meet the commitment (e.g., is no longer a going concern).
P	Planned service	The challenger has knowledge that broadband will be deployed at this location by June 30, 2024, without an enforceable commitment or a provider is building out	 Construction contracts or similar evidence of ongoing deployment, along with evidence that all necessary permits have been applied for or obtained. Contracts or a similar binding agreement between the Eligible Entity and the provider 	Documentation showing that the provider is no longer able to meet the commitment (e.g., is no longer a going concern) or that the planned deployment does not meet the required technology or performance requirements.

 $^{^{22}}$ Technology challenges will be recorded as an Availability challenge under reason code 5, as described in Table 2. This means that Technology challenges will be combined with Availability challenges for the purposes of triggering Area and MDU Challenges.



Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
		broadband offering performance beyond the requirements of an enforceable commitment.	committing that planned service will meet the BEAD definition and requirements of reliable and qualifying broadband even if not required by its funding source (i.e., a separate federal grant program), including the expected date deployment will be completed, which must be on or before June 30, 2024.	
N	Not part of enforceable commitment	This location is in an area that is subject to an enforceable commitment to less than 100% of locations and the location is not covered by that commitment. (See BEAD NOFO at 36, n. 52.)	Declaration by service provider subject to the enforceable commitment.	
С	Location is a CAI	The location should be classified as a CAI.	Evidence that the location falls within the definitions of CAIs set by the Eligible Entity. ²³	Evidence that the location does not fall within the definitions of CAIs set by the Eligible Entity or is no longer in operation.
R	Location is not a CAI	The location is currently labeled as a CAI but is a residence, a non- CAI business, or is no longer in operation.	Evidence that the location does not fall within the definitions of CAIs set by the Eligible Entity or is no longer in operation.	Evidence that the location falls within the definitions of CAIs set by the Eligible Entity or is still operational.
TBD	CAI Broadband	The CAI does not currently have access to 1 Gbps	Evidence, or attestation from CAI, that 1 Gbps/1 Gbps is	Evidence, or attestation from CAI, that 1 Gbps/1

 $^{^{23}}$ For example, eligibility for FCC e-Rate or Rural Health Care program funding or registration with an appropriate regulatory agency may constitute such evidence, but the Eligible Entity may rely on other reliable evidence that is verifiable by a third party.



Code	Challenge Type	Description	Specific Examples	Permissible rebuttals
	Needs are Unmet ²⁴	symmetrical service	not available over current infrastructure	Gbps is available over current infrastructure
TBD	CAI Broadband Needs are Met ²⁵	The CAI does currently have access to 1 Gbps symmetrical service	Evidence, or attestation from CAI, that 1 Gbps/1 Gbps is available over current infrastructure	Evidence, or attestation from CAI, that 1 Gbps/1 Gbps is not available over current infrastructure

v.Area and MDU Challenge

BEAM will administer area and MDU challenges for challenge types A, S, L, D, and T. An area challenge reverses the burden of proof for availability, speed, latency, data caps and technology challenges if the defined threshold of challenges for a particular category have been submitted against a provider across all challengers. Thus, the provider receiving an area challenge or MDU must demonstrate that they are indeed meeting the availability, speed, latency, data cap and technology requirement, respectively, for served or underserved locations, or all units within an MDU, where the provider reports service within the area. The provider can use any of the permissible rebuttals listed above.

An area challenge is triggered if 6 or more broadband serviceable locations using a particular technology and a single provider within a census block group are challenged.

An MDU challenge requires challenges by at least 3 units or 10% of the unit count listed in the Fabric within the same broadband serviceable location, whichever is larger.

Each type of challenge and each technology and provider is considered separately, i.e., an availability challenge (A) does not count towards reaching the area threshold for a speed (S) challenge. If a provider offers multiple technologies, such as DSL and fiber, each is treated separately since they are likely to have different availability and performance.

Area challenges for availability need to be rebutted with evidence that service is available for all BSL within the census block group, e.g., by network diagrams that show fiber or HFC infrastructure or customer subscribers. For fixed wireless service, the challenge system will offer a representative random sample of no fewer than 10% of the locations in the census block group, where the provider has to demonstrate service availability and speed (e.g., with a mobile test unit). BEAM may, in its discretion, require a greater percentage of locations, not to exceed 25%, when necessary for the sample to be representative.

²⁶ A mobile test unit is a testing apparatus that can be easily moved, which simulates the equipment and installation (antenna, antenna mast, subscriber equipment, etc.) that would be used in a typical deployment of fixed wireless access service by the provider.



²⁴ Information for this challenge type is subject to NTIA update on challenges for Community anchor institution BEAD eligibility determinations.

²⁵ Information for this challenge type subject to NTIA update on challenges for Community anchor institution BEAD eligibility determinations.

The rebuttal to an area challenge does not replace the need to provide a rebuttal to the originally challenged locations. Furthermore, the rebuttal of the original challenges does not count toward the required location count of the area challenge rebuttal.

vi.Speed Test Module Requirements

BEAM will accept speed tests as evidence for substantiating challenges and rebuttals. Each speed test consists of three measurements, taken on different days. Speed tests cannot predate the beginning of the challenge period by more than 180²⁷ days.

Speed tests can take four forms:

- 1. A reading of the physical line speed provided by the residential gateway, (i.e., DSL modem, cable modem (for HFC), ONT (for FTTH), or fixed wireless subscriber module.
- 2. A reading of the speed test available from within the residential gateway web interface.
- 3. A reading of the speed test found on the service provider's web page.
- 4. A speed test performed on a laptop or desktop computer within immediate proximity of the residential gateway, using a commonly used speed test application or a speed test application approved by the BEAM, including:
 - i. BEAM Performance Test & Survey
 - ii. Measurement Lab's Network Diagnostic Tool
 - iii. Ookla's Speed Test,
 - iv. Ready.net's Ready Strength Test
 - v. Cloudflare's Internet Speed Test

Each speed test measurement must include:

- The time and date the speed test was conducted.
- The provider-assigned internet protocol (IP) address, either version 4 or version 6, identifying the residential gateway conducting the test.

Each group of three speed tests must include:

- The name and street address²⁸ of the customer conducting the speed test.
- A certification of the speed tier the customer subscribes to (e.g., a copy of the customer's last invoice).
- An agreement, using an online form provided by BEAM, grants access to these
 information elements to the Eligible Entity, any contractors supporting the
 challenge process, and the service provider.

²⁸ When the fabric address associated with the challenged Location ID is not accurate, the broadband office maintains the discretion to utilize alternative datasets to join the actual address with the Location ID in order to proceed with the challenge.



²⁷ Community engagement and data collection is a methodical process. BEAM has administered a methodologically rigorous performance test and survey that requires respondents to provide contextual data, including the type of connect (Ethernet, Wi-Fi, Mobile) and runs the test with a polytest methodology, using the median results, to filter out the outliers. This tool will have been deployed for well over 180 days by the time the challenge process begins. If participants in recent efforts feel like their prior contributions are being invalidated, it will be even more difficult to re-engage past participants.

The IP address and the subscriber's name and street address are considered personally identifiable information (PII) and thus are not disclosed to the public (e.g., as part of a challenge dashboard or open data portal).

Each location must conduct three speed tests on three different days; the days do not have to be adjacent. The median of the three tests (i.e., the second highest (or lowest) speed) is used to trigger a speed-based (S) challenge, for either upload or download. For example, if a location claims a broadband speed of 100 Mbps/25 Mbps and the three speed tests result in download speed measurements of 105, 102 and 98 Mbps, and three upload speed measurements of 18, 26 and 17 Mbps, the speed tests qualify the location for a challenge, since the measured upload speed marks the location as underserved.

Speed tests may be conducted by subscribers, but speed test challenges must be gathered and submitted by units of local government, tribal governments, nonprofit organizations, or a broadband service provider.

Subscribers submitting a speed test must indicate the speed tier they are subscribing to. If the household subscribes to a speed tier of between 25/3 Mbps and 100/20 Mbps and the speed test results in a speed below 25/3 Mbps, this broadband service will be used to change the status from underserved to unserved.²⁹

If the household subscribes to a speed tier of 100/20 Mbps or higher and the speed test yields a speed below 100/20 Mbps, this service offering will not count towards the location being considered served. However, even if a particular service offering is not meeting the speed threshold, the eligibility status of the location may not change. For example, if a location is served by 100 Mbps licensed fixed wireless and 500 Mbps fiber, conducting a speed test on the fixed wireless network that shows an effective speed of 70 Mbps does not change the status of the location from served to underserved.

A service provider may rebut an area speed test challenge by providing speed tests, in the manner described above, for at least 10% of the customers in the challenged area. The customers must be randomly selected. Providers must apply the 80/80 rule³⁰, i.e., 80% of these locations must experience a speed that equals or exceeds 80% of the speed threshold. For example, 80% of these locations must have a download speed of at least 20 Mbps (that is, 80% of 25 Mbps) and an upload speed of at least 2.4 Mbps to meet the 25/3 Mbps threshold and must have a download speed of at least 80 Mbps and an upload speed of 16 Mbps to be meet the 100/20 Mbps speed tier. Only speed tests conducted by the provider between the hours of 7 pm and 11 pm local time will be considered as evidence for a challenge rebuttal.

Providers are required to provide a description of the measurement methodology used in their speed test. Descriptions should define how speed and latency are calculated as well as describe the vantage points used to generate the measurement.

In addition to the locations included in the randomized sample of customers included in the rebuttal to an area speed test challenge, the provider will be required to provide a

³⁰ The 80/80 threshold is drawn from the requirements in the CAF-II and RDOF measurements. See BEAD NOFO at 65, n. 80, Section IV.C.2.a.



²⁹ Locations that are classified as "underserved" are the most impacted by speeds that are not delivered. A connection of 100/20 Mbps that only experiences 75% of the advertised speed is still receiving 75/15 Mbps, while a 25/3 Mbps connection experiencing the same discrepancy, is receiving closer to 19/2 Mbps. These locations likely have difficulty using their connection, similar to the "unserved" locations. Since BEAD prioritizes the funding for unserved locations over underserved locations, it's important that those locations that cannot actually receive speeds of 25/3 Mbps are able to challenge to modify their priority, in the event that the BEAD funding does not reach every unserved and underserved location.

direct rebuttal with evidence specific to the original challenges that triggered the area challenge. A successful rebuttal of an area challenge will overturn locations triggered by the area challenge, but the six, or more, original challenges can only be rebutted based on evidence specific to the location.

vii.1.4.5 - Transparency Plan

To ensure that the challenge process is transparent and open to public and stakeholder scrutiny, the broadband office will, upon approval from NTIA, publicly post an overview of the challenge process phases, challenge timelines, and instructions on how to submit and rebut a challenge. This documentation will be posted publicly for at least a week prior to opening the challenge submission window. The broadband office also plans to actively inform all units of local and Tribal government, leveraging partnerships with MS Municipal League, Mississippi Supervisors Association, Stennis Institute of Government, Mississippi state legislature, Mississippi Band of Choctaw Indians of its challenge process and set up regular touchpoints to address any comments, questions, or concerns from local and Tribal governments, nonprofit organizations, and Internet service providers. Relevant stakeholders can sign up on the broadband office website, at https://www.broadbandms.com/, for challenge process updates and newsletters. They can engage with the broadband office by sending an email to info@beam.ms.gov.

Challenged providers will be notified via email with related information about the timing for the providers' response and a link to access challenge detail through user accounts in the portal designated by the provider to respond to challenges.

Beyond actively engaging relevant stakeholders, the broadband office will also post all submitted challenges and rebuttals before final challenge determinations are made, including:

- the provider, nonprofit, or unit of local and Tribal government that submitted the challenge,
- the census block group containing the challenged broadband serviceable location,
- the provider being challenged.
- the type of challenge (e.g., availability or speed), and
- a summary of the challenge, including whether a provider submitted a rebuttal.

The broadband office will not publicly post any personally identifiable information (PII) or proprietary information, including subscriber names, street addresses and customer IP addresses. To ensure all PII is protected, the broadband office will review the basis and summary of all challenges and rebuttals to ensure PII is removed prior to posting them on the website. Additionally, guidance will be provided to all challengers as to which information they submit may be posted publicly.

The broadband office will treat information submitted by an existing broadband service provider designated as proprietary and confidential consistent with applicable federal law. If any of these responses do contain information or data that the submitter deems to be confidential commercial information that should be exempt from disclosure under state open records laws or is protected under applicable state privacy laws,³¹ that information should be identified as privileged or confidential. Otherwise, the responses will be made publicly available.

³¹ Mississippi Code § 77-19-15



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