MAINE STATE LEGISLATURE

The following document is provided by the
LAW AND LEGISLATIVE DIGITAL LIBRARY
at the Maine State Law and Legislative Reference Library
http://legislature.maine.gov/lawlib

Greetings Senator Lawrence, Representative Zeigler and members of the EUT Committee,

My name is Andrew Butcher, and I serve as President of the Maine Connectivity Authority. It is a pleasure to join you in person today to provide a briefing on behalf of both the Maine Connectivity Authority and Connect Maine Authority. My goal for this presentation is to update the Committee about the state of Maine's connectivity, MCA's strategy, activity, challenges and progress as we work toward achieving universal, affordable, and reliable high-speed internet for everyone in Maine. There is a tremendous amount of activity underway and so I will give a high level overview and have provided more detail in the appendix for your quick reference.

A few highlights:
- Since 2022 MCA has enabled connectivity at 77,000 Unserved locations through $147M of investment funding leveraging over $85M in private investment
- We are actively managing 64 infrastructure projects enabled through 4 federal and state funding programs
- The % of "No-Connection" locations is now approximately 5% down from 12% in 2022.
- MCA helped 98,000 households participate in the Affordable Connectivity Program saving Mainers a combined $2.8M/month.
- In the last year, MCA (and partners) have produced 3 major documents required to access the $286M enabled through the Bipartisan Infrastructure Law (a Five Year Broadband Action Plan, Digital Equity Plan, and the BEAD Initial proposals. (Maine is first state in the country with approved Digital Equity Plan.)

MAINE
CONNECTIVITY
AUTHORITY

About MCA

- MCA was founded in 2021 as a quasi-governmental entity to be the primary broadband agency for the state of Maine with three statutory goals:

  - That effective, accessible connectivity be universally available in the state.

  - That Maine has secure, affordable, reliable, competitive, sustainable and forward-looking infrastructure that can meet future needs.

  - That all residents, businesses and institutions in Maine be able to take full advantage of the economic, health, educational and other opportunities available through connectivity services.

- MCA is designed to be nimble and proactive to meet the opportunity presented by this generational investment from the federal government

- * In 2022 the Connect Maine Board of directors assigned management and responsibilities of organizational activities to MCA to ensure a "single door."
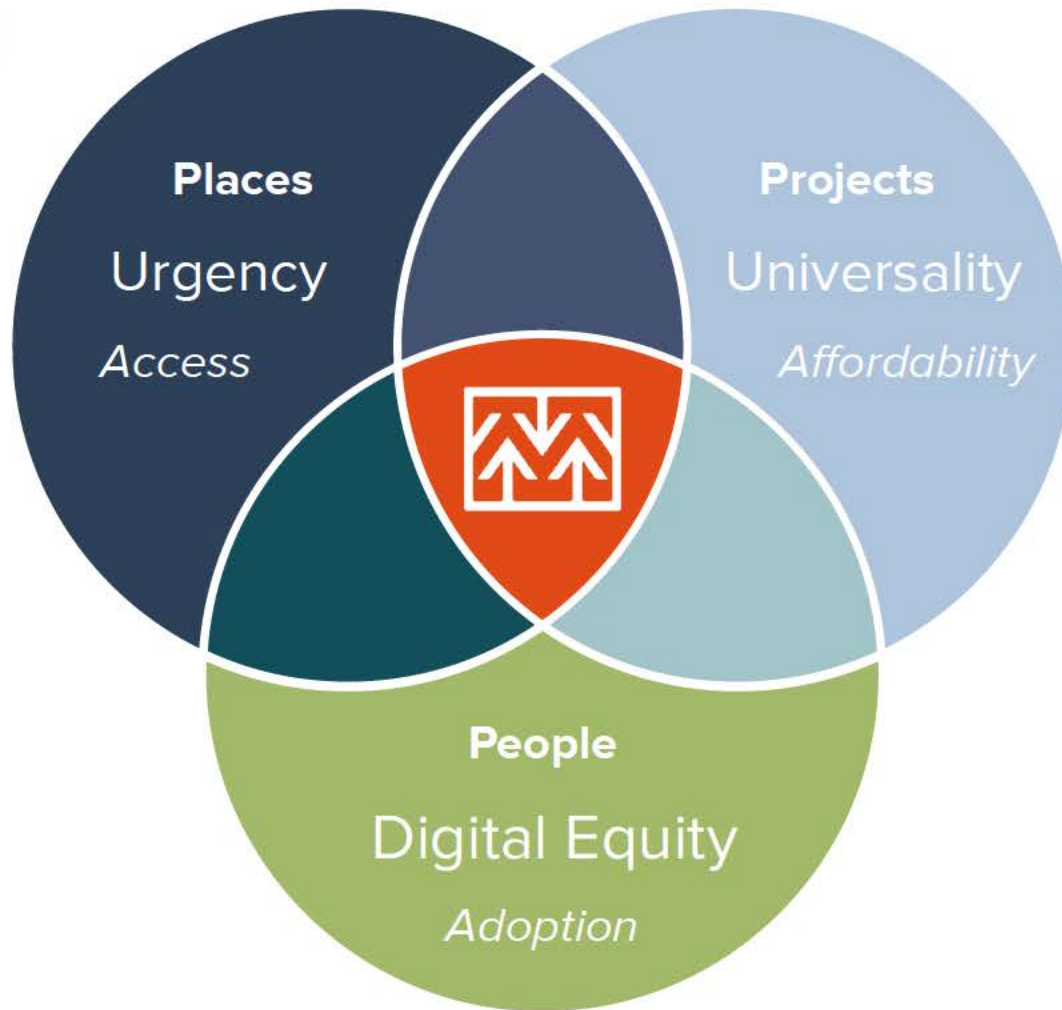
MAINE
CONNECTIVITY
AUTHORITY

3

The State of Connectivity

According to the Federal Communications Commission, Maine has approximately **632,000 broadband serviceable locations,** generally identified as homes or businesses where internet service is or could be commercially available.

Of those, 35,575 locations, or 5.6%, are classified as unserved by the Broadband Equity Access and Deployment (BEAD) program and have less than 25/3 Mbps service. Another 6.3% of locations are classified as underserved by the BEAD program, with service between 25/3 and 100/20 Mbps.

A total of 11.9% of Maine locations do not have access to internet service of at least 100/20 Mbps, and will be prioritized through the BEAD Program.

MAINE
CONNECTIVITY
AUTHORITY

Our Strategy

Projects

People

Jumpstart
Last Mile Grants

Optimize Broadband Deployment

Reach The Last Mile

Advance Digital Equity For All

Enabling Middle Mile
Pole Access
DOT collaboration

Digital Equity Task Force
Workforce Development

Places

6
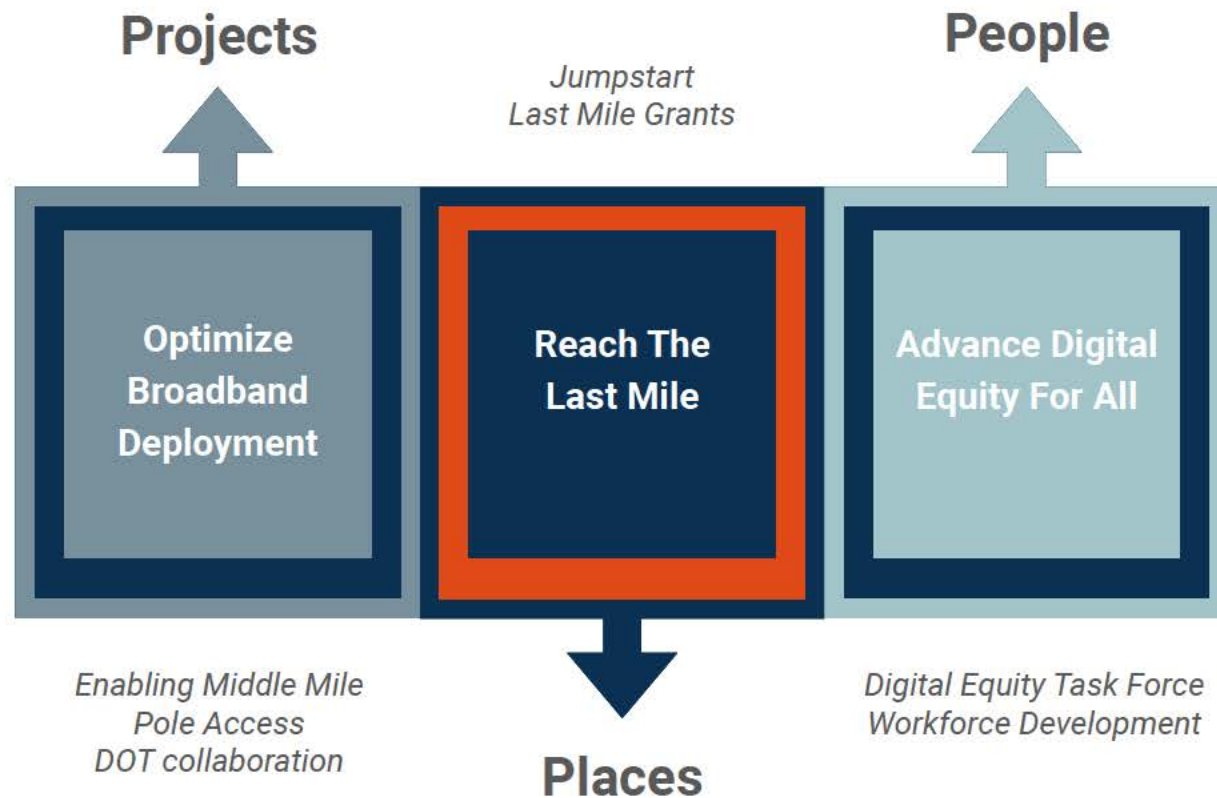
The Problem

What is the Scale of the Problem?

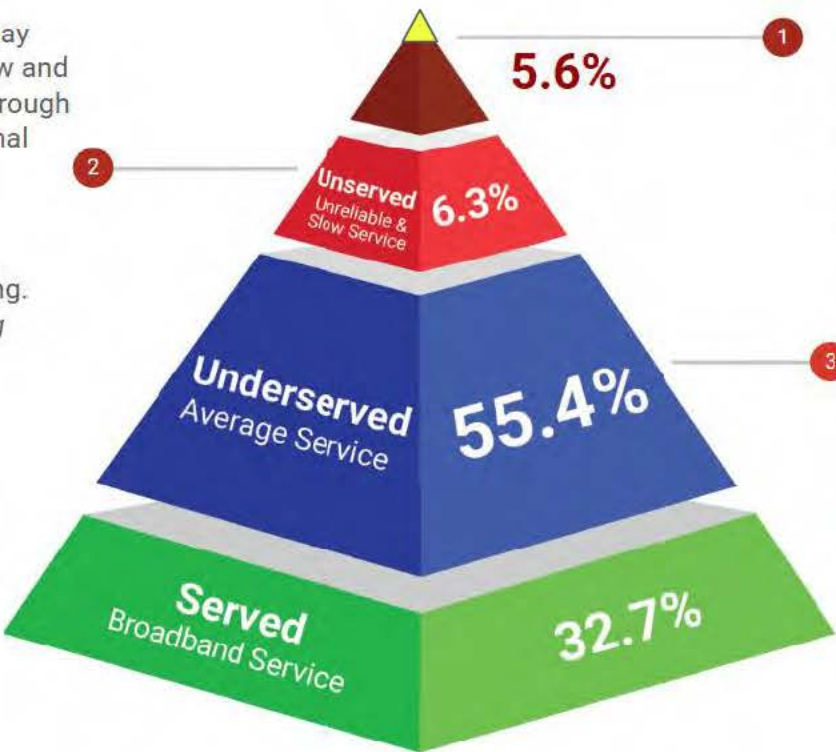| Technical Definition	Working / Colloquial Definition	BEAD Definition	Number of Locations	% of Locations
No Connection *< 25/3 Mbps*	**No Service**	**BEAD Priority** *Eligible*	**35,575**	**5.6%**
Unserved *25/3 to 100/20 Mbps*	Unreliable & Slow Service	BEAD Secondary *Ineligible, until all eligible are served*	**39,578**	**6.3%**
Underserved *100/20 to 100/100 Mbps*	Average Service	BEAD Ineligible	**349,814**	**55.4%**
Served *>100/100 Mbps*	Reliable & Fast Service		**206,981**	**32.7%**

8

Service Availability *(Dec 2023)*

Unserved

Est. 6.3% of locations. May have connection, but slow and unreliable. To address through community-driven, regional scale Public Private Partnerships.

Deployments underway currently via ARPA funding. *The % may be increasing*

No Service: Est. .01% of locations

5.6%

Unserved Unreliable & Slow Service **6.3%**

Underserved Average Service **55.4%**

Served Broadband Service **32.7%**

Most Critical / No Connection

Est. 5.6% of locations. Updated data to target and prioritize in grants and special deployments as needed including wireless.

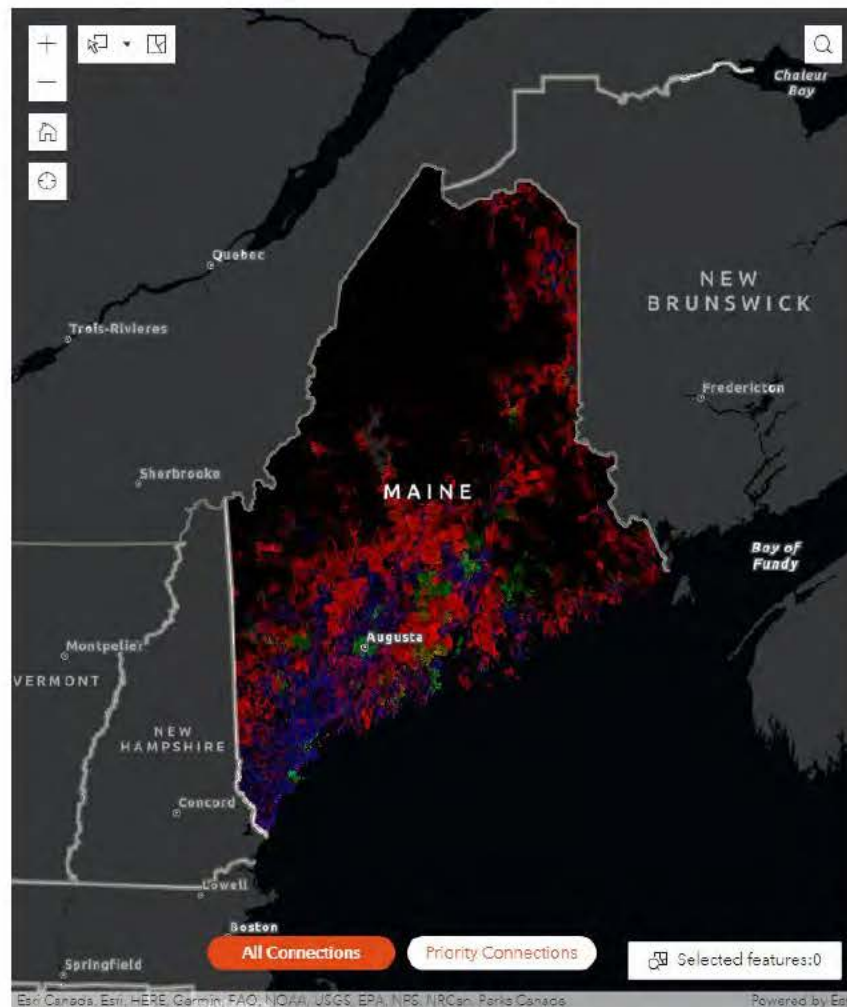Decisions and deployment by end of 2024.

Inadequately Served

Est. 55.4% of locations. May have connection but affordability and speed issues remain. BEAD funding limited. Will need to leverage private funds.
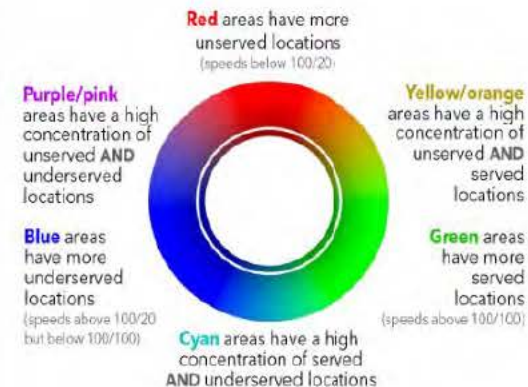
MAINE CONNECTIVITY AUTHORITY

9

Where Is the Problem?

- Current visualization available on MCA homepage: www.maineconnectity.org

- Map shows concentrations of locations by service availability

- Includes all funded project areas

MAINE
CONNECTIVITY
AUTHORITY

This map shows the concentrations of locations by service availability

Red areas have more unserved locations (speeds below 100/20)

Purple/pink areas have a high concentration of unserved AND underserved locations

Blue areas have more underserved locations (speeds above 100/20 but below 100/100)

Cyan areas have a high concentration of served AND underserved locations

Yellow/orange areas have a high concentration of unserved AND served locations

Green areas have more served locations (speeds above 100/100)

Color intensity represents the concentration of the service types. Areas in gray and **black** have fewer locations.
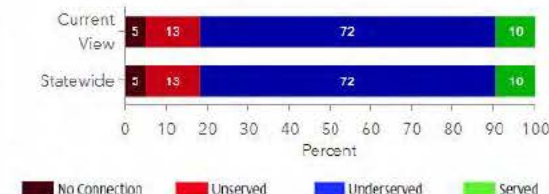
Connectivity Comparison

	No Connection	Unserved	Underserved	Served

Chart compares connectivity rates of the current map view to statewide connectivity rates.

10

External Challenges

2. Utility Poles*

Access, data management, insurance, regulation require systemic intervention.

3. Workforce*

Over 3,400 positions needed to address surge of investment. Partnerships are in motion.

No One Size Fits All

1. Data Iteration*

Baseline data is getting updated and refined which impacts the scale of problem and available resources.

4. Diversify Financing

Regional scale is critical. Financing for utility districts and publicly owned efforts remain constrained.

11

Progress +
Programs & Activities

MAINE
CONNECTIVITY
AUTHORITY

Connections Made Since 2021

MAINE CONNECTIVITY AUTHORITY

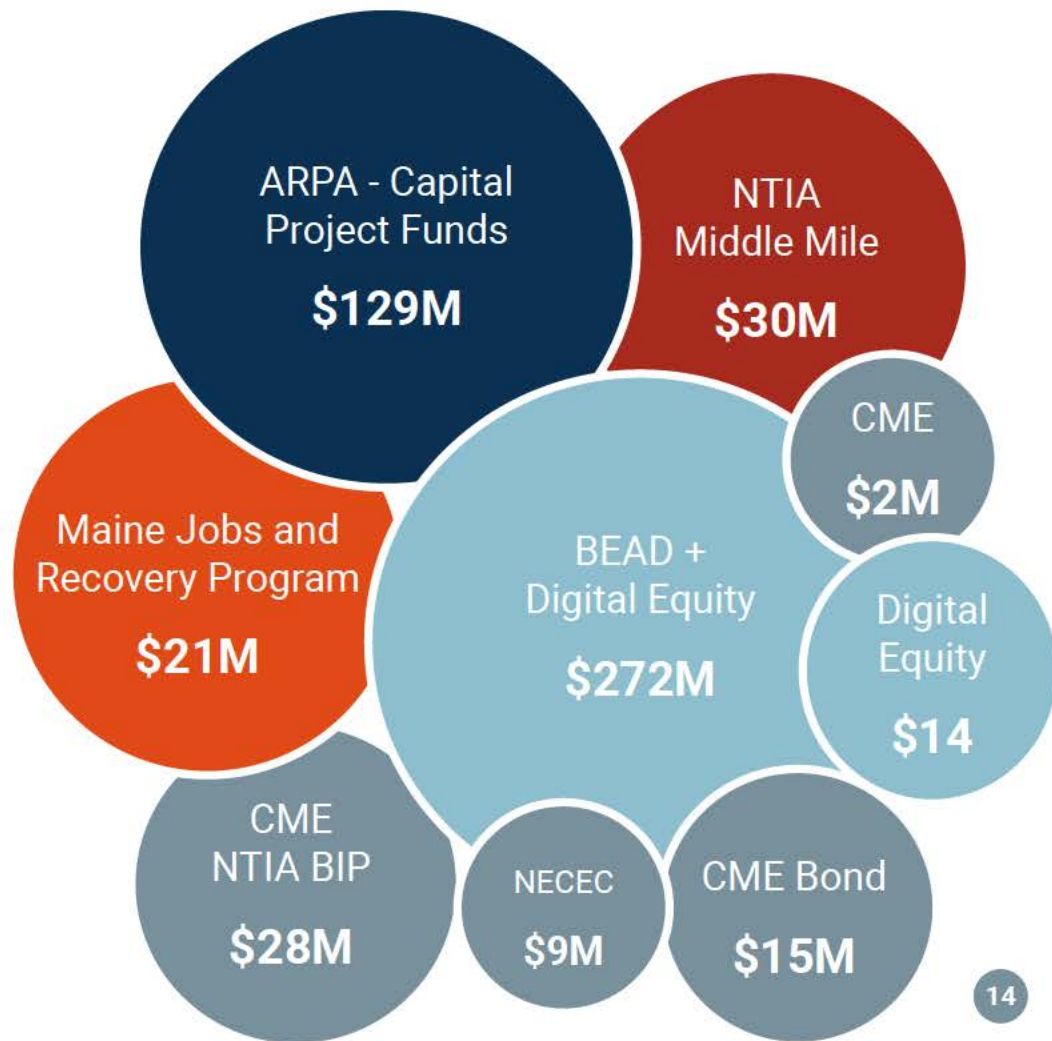| Program	Connections	Funding	Leveraged Investment	Scale	Award Dates
Connect the Ready: Cohort 2 *Public Private Partnerships*	6,500	$21M	$11M	5 Projects	December 2023
Partnerships Enabling Middle Mile *Leverage Middle Mile for Last Mile*	18,000	$16M	$14M	3 Projects	December 2023
Reach Me *Line Extension Incentives*	6,300	$20M	$13M	10 Projects	April 2023
Connect the Ready *Public Private Partnerships*	18,300	$40M	$20M	14 Projects	January 2023
Jumpstart Connectivity *Wireless Trial Projects*	1,470	$1M	$1M	3 Projects	December 2022
NTIA BIP Mountains to Sea *Public Private Partnerships*	14,400	$28M	$5M	7 Projects	2022
CME Bond + CPF Infrastructure *Public Private Partnerships*	12,900	$21M	$20M	22 Projects	2021 & 2022
Total	**77,870**	**$147M**	**$84M**	**64 Projects**	

More detail in Appendix

13

Sources of Funding

- $200M currently under management

- Additional $338M through BIL

- 94% of received funds will be deployed for program expenses

- **Key to success: Braid Funds + Maximize Impact**

ARPA - Capital Project Funds
$129M

NTIA Middle Mile
$30M

CME
$2M

Maine Jobs and Recovery Program
$21M

BEAD + Digital Equity
$272M

Digital Equity
$14

CME NTIA BIP
$28M

NECEC
$9M

CME Bond
$15M

MAINE CONNECTIVITY AUTHORITY

14

Grant Administration Workload

Active Infrastructure Projects by Program - MCA & CME combined
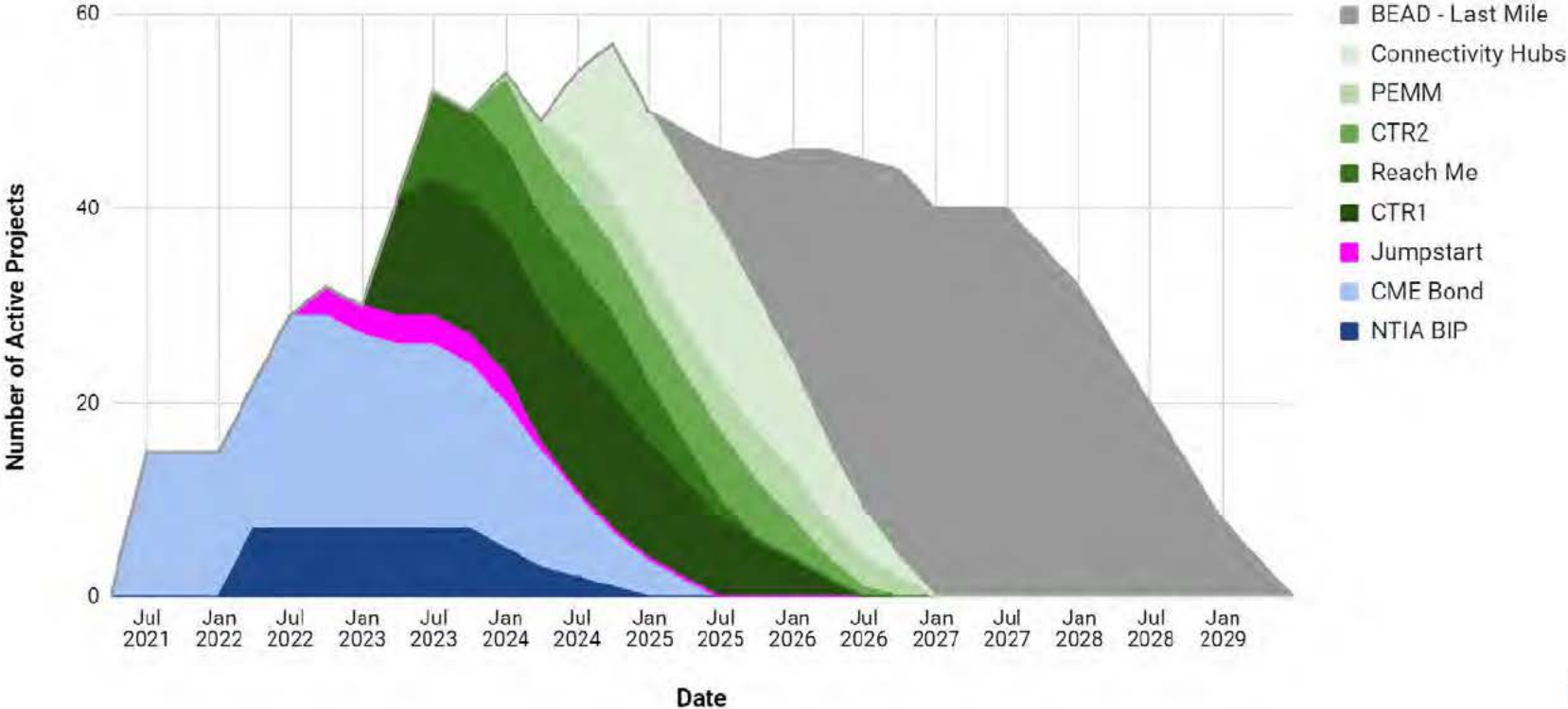
Regional & Tribal Broadband Partners

- MCA has supported 13 Regional & Tribal Broadband partners that help **deploy, sustain and maximize the benefits of broadband infrastructure investment** in all regions.

- Each partner is **building and leading digital inclusion efforts** in their region and tribe, while also providing support for community and regional-scale broadband infrastructure solutions and investments.

- Partners include non-profit organizations, Indian Tribal governments, planning commissions, economic development agencies and councils of government.

16
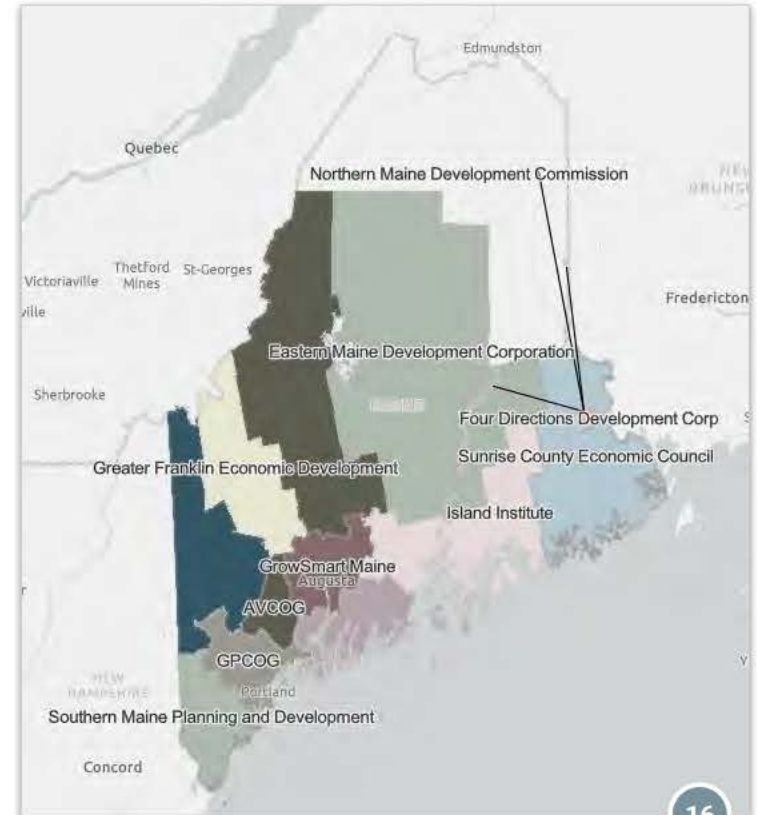
MOOSE Net - Middle Mile Project

- The Maine Online Optical Statewide Enabling Network (MOOSE Net) is a new **$53 million strategic initiative** created by the Maine Connectivity Authority to support the goal of universal broadband access throughout the state.

- In June, Maine received a **$30 million competitive grant award** from the National Telecommunications Information Administration's (NTIA) Enabling Middle Mile Broadband Infrastructure Program to help fund MOOSE Net.

- MOOSE Net covers **530 miles, 131 communities**, representing over **11,000 unserved local businesses and residents**. It will reach more than **200 community anchor institutions**, including schools, hospitals, libraries, local government buildings, and civic centers.

MOOSE Net Routes
Density of Unserved Locations

Few Locations ———— Many Locations
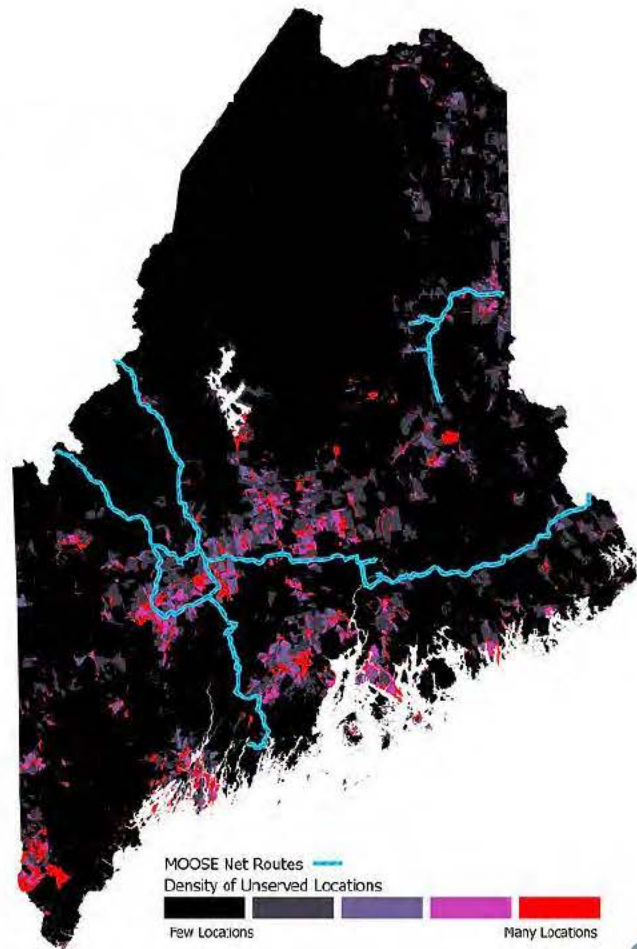
MOOSE Net - Middle Mile Project

MOOSE Net's expansion will deploy open-access fiber "highways" that provide an essential backbone network that will:

- Facilitate affordable broadband access to thousands of households along the route.
- Ensure Maine's digital 21st-century infrastructure that businesses need to thrive and grow
- Add resiliency to Maine's internet networks, eliminating single points of failure
- Connect community anchor institutions like schools, libraries and hopsitals
- Achieve financial self-sufficiency and create a strong platform for future expansion

- The $1 billion program received over $7.5 billion of requests, and Maine's proposal was one of 32 selected from a pool of more than 260 applications.

- The proposal was developed in collaboration with key partners around the state.

Broadband Equity, Access & Deployment (BEAD)

Broadband Action Plan

BEAD Planning:

- Maine received **$5 million** in BEAD Initial Planning Funds from NTIA in november 2022.
- MCA submitted a 5-year statewide broadband plan to access Maine's full BEAD Allocation.
- Maine's BEAD Allocation is **$272 million**.

Digital Equity Planning:

- Maine also received **$542,000** in Digital Equity Planning Funds from NTIA in november 2022.
- MCA is the first State in the country to submit (and have approved) a State Digital Equity Plan to access digital equity implementation funding estimated as $13M

BROADBAND ACTION PLAN:

- MCA combined the two planning processes into one, resulting in a comprehensive Broadband Action Plan (BAP) with digital equity at its core.
- This ensures seamless integration, maximizes use of our resources, and avoids potential stakeholder fatigue and/or confusion.

21

BEAD Workflows

1. **State Led Challenge Process**
   MCA's opportunity to create an accurate map of locations where BEAD funding can be deployed

2. **Subgrantee Selection Process**
   Including the BEAD Pre-Qualification, Application, and Evaluation processes that will ultimately select the entities receiving BEAD funds for each Project Service Area

3. **Integrated Education & Outreach Campaign**
   Utilizing MCA's new Resource Exchange platform to provide support for those stakeholders actively participating in BEAD-related activities, and providing awareness to the general public

4. **BEAD Final Proposal Development**
   Ongoing content generation to meet the requirements of the BEAD Final Proposal that is due in early 2025.

5. **Grant Administration Systems & Capacity**
   Develop internal structure, capacity, systems, and processes to enable MCA to quickly execute and administer grants once approved

BEAD Workflow Timeline

MAINE CONNECTIVITY AUTHORITY

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec

1 State Led Challenge Process
- Development
- Challenge, Rebuttal, Adjudicate

2 Subgrantee Selection Process
- Development
- PreQual
- Application
- Evaluation
- Approval

3 Education & Outreach Campaign
- Dev.
- State Led Challenge
- Subgrantee Selection Process + Public Engagement
- Implementation & Next Steps

4 BEAD Final Proposal Development
- Draft New Content
- Edit Existing Information from IPs
- Integrate SSP

5 Grant Admin Systems & Capacity
- Build administrative, legal, and financial capacity to execute grants

23

Affordability + Digital Equity

MAINE CONNECTIVITY AUTHORITY

The Problem, the Work, and the Goal

Digital Divide

The gap between those who have affordable access, skills and support and those who don't.

Digital Inclusion

Activities to ensure that all individuals and communities, including the most disadvantaged, have access to and use of information and communication technologies.

Digital Equity

All individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy.

25

Digital Equity Strategies

01 **Foundation**
Invest in the core capacity, tools, and resources to help advance digital equity across our state

02 **Partnerships**
Leverage partners and networks that are significant assets to enable digital inclusion programs and activities

03 **Affordability**
Focus attention on strategies that can improve the affordability of internet service, especially for covered populations

04 **Education**
Coordinate education and engagement campaigns, providing a structure and tools for various partners to participate

05 **Sustain & Grow**
Identify and secure ongoing diverse sources of investment to stretch funding and enable impact

Closing the Digital Divide

- Nationwide, two-thirds of the entire digital divide is due to affordability.

- In Maine, this number is 62%. Put another way, for every 10 Maine families who do not have home internet, for 6 of them, it's just because they can't afford to connect and stay connected.

- Recent analysis shows the Affordable Connectivity Program may lead to a 25% reduction in the subsidy needed to incentivize deployment in rural areas.

Sources: Education SuperHighway

Affordability - ACP4ME Campaign

- In Maine, **238,710 households are eligible** for the ACP. As of February 2024 - approximately 98,000 households signed up

- The **ACP4ME campaign** is MCA's statewide initiative to increase awareness of and enrollment in the ACP.

- While the program appears to be concluding there is clear evidence of the need to reduce costs.

Maine ACP Adoption
238,710 eligible households
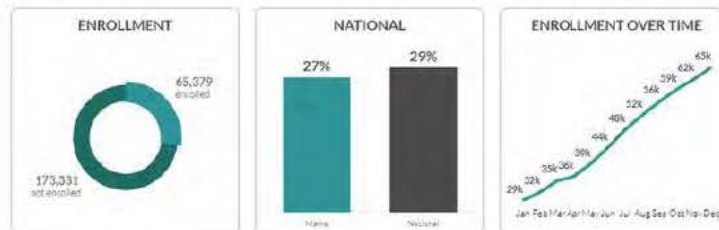
ACP4ME Enrollments

Maine Households Enrolled in the ACP
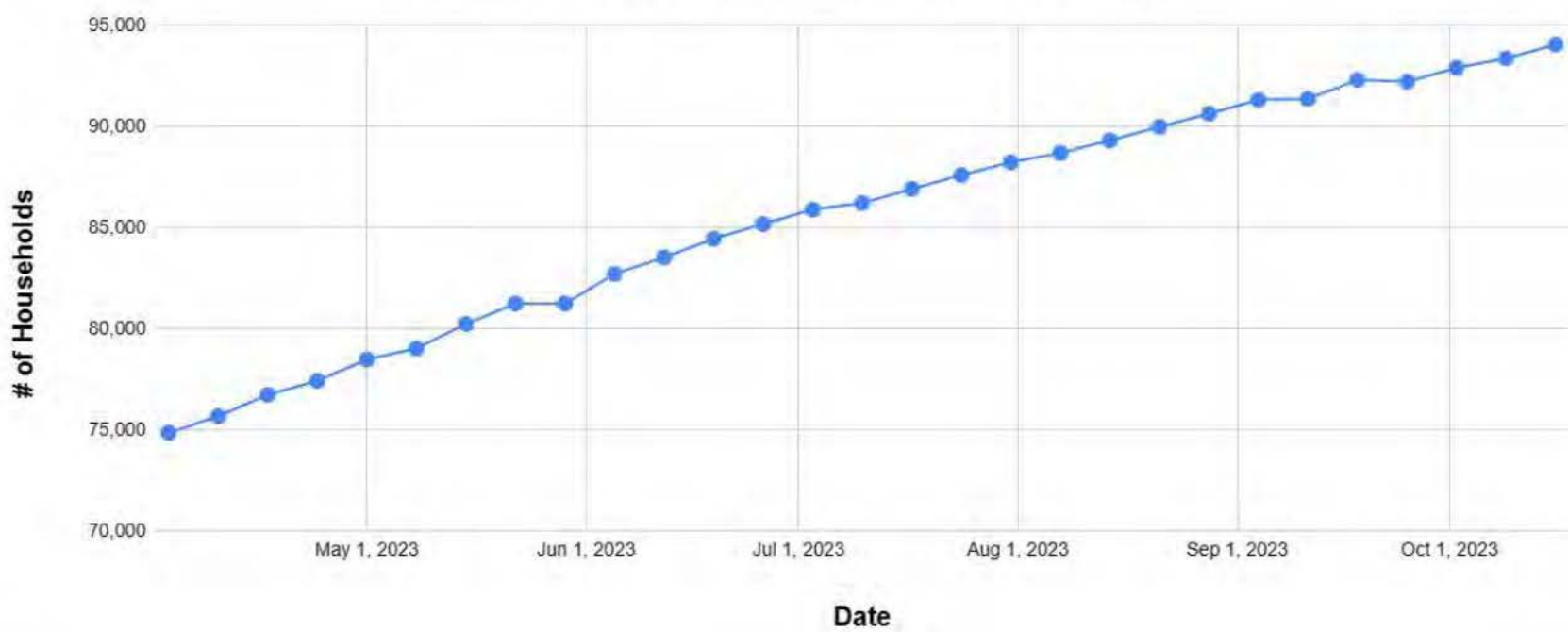
Organization

MCA Staffing Org Chart - Q3 FY24

Board of Directors (11 person)

Executive Committee (4 person)

Audit & Risk Committee (3 person)

Digital Equity & Inclusion Committee (3 person)

President Andrew Butcher

Last Mile Infrastructure Committee (3 person)

General Counsel Butler Law Offices, LLC

Economic Dev. Director Tanya Emery

Workforce Dev. Manager Kwame Yeboah

Strat. Partner. Director Maggie Drummond-Bahl

Community & Regional Partnerships Snr Manager Kendra Jo Grindle

State Policy and Agency Partnerships Manager Kiera Reardon

Digital Equity Manager Jessica Perez

Program Ops + Comms Director Brian Allenby

Communications Manager Jenna Ingram

Grant Admin. Senior Manager Erin Clark

Technology & Data Systems Manager TBD

DE[1] & Partnerships Grant Manager Meg Meadows

Infrastructure Grant Manager A Tyler Collins

Infrastructure Grant Manager B Margaret Reynolds

Infrastructure Grant Manager C David Bresnahan

CFO David Wedick

Accounting Manager Laurie Polland

Staff Accountant A Becky Ingersoll

Staff Accountant B Hillary Mordecai

Finance & Ops Director TBD

Operations Manager Dave Hack

Research & Analytics Senior Manager Meghan Grabill

Geospatial Data Fellow (PTE) Ariel Anderson

BB Infra. Sr. Advisor (PTE) Chris Boniakowski

Broadband Infra. Senior Manager Chris Waite

Broadband Infra. Project Manager Kevin Racelis

[1] DE = Digital Equity
[2] AP = Accounts Payable

Legend:
- = MCA senior team
- = MCA employee
- = JD posted - actively hiring
- = JD posting - TBD
- = MCA governance
- = Contracted support

February 2024

31

APPENDIX

Challenge 1: Increasing Data Fidelity

- The fidelity and detail of the location and availability data available to MCA has increased dramatically in the past two years.

- Previous data was reported using the FCC Form 477 model that allowed ISPs to report availability data at the census block level.
    - **There are 69,518 census blocks in Maine**

- Updated data reporting is based on the new FCC fabric including individual broadband serviceable locations.
    - **There are ~634,000 fabric locations* in Maine**

- **The fidelity and clarity of MCA's view of locations with no connection has increased 9x.**

This number continues to change with each version of the FCC fabric.

The Baseline Has Changed

- ISPs have traditionally overreported service availability.

- Data filings with the FCC became much more accurate last fall and changed the scope of the problem.

- The maps on this slide represent the number of locations with no connection in June 2022, and then in December 2022.

No Connection and Unserved Locations

No Locations
Less than 10 Locations
11 - 50 Locations
51 - 100 Locations
101 - 200 Locations
Over 200 Locations

June 2022

December 2022
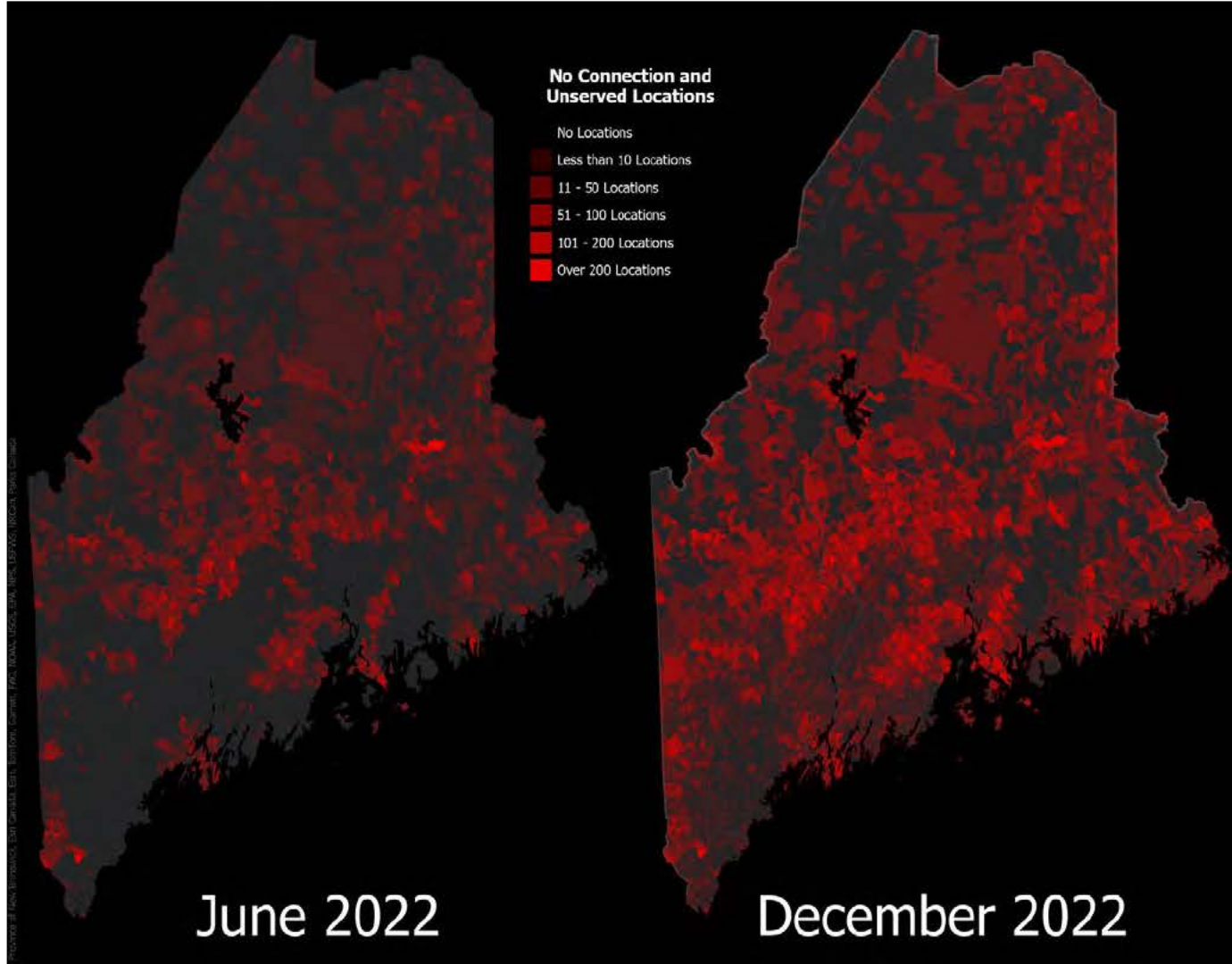
What goes into Maine's Map?

Broadband Serviceable Locations (BSLs)
Homes & businesses where broadband is available

Broadband Data Collection (BDC)
Service availability based on data reported by ISPs

FCC Data Challenges
Location & Availability Challenges submitted to the FCC

The FCC National Broadband Map
Locations updated June 2023 & Availability updated December 2023

MCA's Maine Broadband Map
MAINE CONNECTIVITY AUTHORITY

Enforceable Commitments
Location data that MCA collects directly from Maine ISPs and subgrantees

BEAD Program Eligible Locations
The FCC Map is the base for locations eligible for BEAD funding, and will be updated with a series of pre-modifications & the State Led Challenge Process.

Funded Programs & Projects
MCA All-In Programs, ConnectMaine projects, NTIA BIP projects

MCA's BIND Process
A confidential and voluntary process for ISPs to share data about planned builds

State-Led Challenge Process
Availability Challenges submitted to MCA (Spring 2024)

Optional Module: Speed Testing
Speed Test data submitted to MCA

Optional Module: MDUs
Multiple-Dwelling Unit availability data submitted to MCA

* Changes to the BEAD map as a result of the State Led Challenge Process will not directly update FCC location or availability data.

35

Challenge 2 : Utility Poles

- MCA is uniquely positioned to monitor the pole attachment process and drive changes to mitigate the problems experienced by pole owners and attachers through the following steps:

- Convene key stakeholders communities, ISPs, pole owners, and the PUC

- Monitor pole attachment timeline compliance

- Develop and disseminate educational materials

- Develop pilot program to offset utility pole costs

- Target interventions in the pole attachment process

"An efficient and reliable pole attachment process is critical to MCA achieving universal broadband deployment in a timely manner."

Challenge 3: Workforce Development

- With Camoin Associates and Thomas P. Miller & Associates, MCA developed and presented a statewide [Broadband Workforce Analysis Report](#)

- MCA is working with the Maine Community College System to develop a targeted broadband training program

- Coordinating with the Maine Department of Labor to establish broadband apprenticeship and pre-employment incentives

- Engaging industry partners to identify needs and craft programs to address gaps through the Broadband Workforce Advisory Committee

MAINE CONNECTIVITY AUTHORITY

37

Recent MCA Funding Deployed

$20M
Connect The Ready: Cohort 2

Competitive grants funding **public/private partnerships** building broadband infrastructure projects in eligible areas.

- December 2024 Awards

$23M
Partnerships Enabling Middle Mile

Addressing large-scale, regional broadband needs by **leveraging middle mile infrastructure** and maximizing private and community financial contributions.

- Fall 2023 / Spring 2024 Awards (rolling basis)

$3M
Regional & Tribal Broadband Partners

Regional partners will lead **digital inclusion efforts** and provide support for **regional-scale broadband solutions**.

- November 2023 Awards
- Year 2 of funding for 13 Partners

$11M
Connectivity Hubs

Investing **community anchor institutions** through **capital improvements** that enable workforce training, education, and health monitoring.

- Spring 2024 Awards

Utilizing MJRP + CPF funding

BAP Engagement Process and Methods

- **3,288 survey responses** to the statewide Maine Broadband Survey analyzed & **12 survey translations**

- **13 community meetings** convened with our Regional and Tribal Broadband Partners and the Maine Broadband Coalition

- **13 facilitated focus groups** with important audiences completed

- **Partner group meetings** convened by MCA including Workforce Advisory Committee, Interagency Broadband Working Group, Broadband Infrastructure Capital Markets Taskforce, and Digital Equity Task Force

- **13 Regional and Tribal Digital Equity Visions & Plans** submitted

- Industry round tables and interviews with **Internet Service Providers**

- Weekly **open office hours**, plus open **email and phone lines** to solicit direct feedback

- Print **advertising** in multiple outlets, focusing on publications that serve **non-English speaking audiences**

- Radio advertising, social media, earned media, and speaking engagements with organizations such as Maine Municipal Association and Maine State Chamber of Commerce
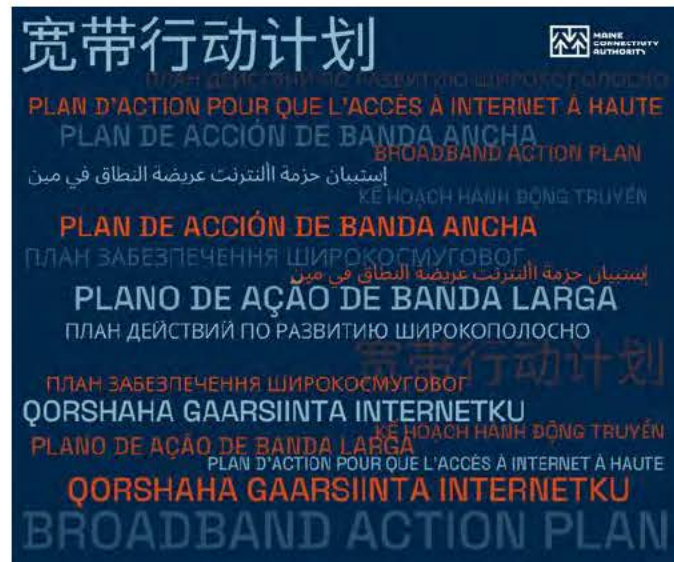
Engagement (cont'd)

- **Wabanaki Nations Consultation:** Completed Passamaquoddy-Sipayik, Passamaquoddy-Indian Township, & Mi'kmaq Nation

- **Covered Population & Other Partner Outreach:** affordable housing, telehealth, libraries, adult education, corrections, philanthropy, fishing communities

- **Digital Equity Asset Inventory** including ongoing follow up to identify gaps & integrate regional assets

- **Targeted industry analysis** related to Maine's economic development and workforce strategies, including integration with existing plans

- Completion of **ISP interviews** and **policy environment** scans

- **Broadband Capital Markets Taskforce** developed recommendations regarding financing strategies and potential role of MCA and others in capital landscape

- **Digital Equity Workshop:** over 100 state, regional, and tribal partners gathered for the first time to learn together and prioritize strategies for the plan

BEAD Timeline

- Maine received a $272 Million allocation through the Broadband Equity, Access and Deployment (BEAD) Program

- Broadband Action Plan and comprehensive Initial Proposals required* (See appendix)

- MCA's BEAD timeline is outlined here, and will be updated as NTIA approves each Initial Proposal Volume

- Funding commitments to be made by December 2024.

MAINE CONNECTIVITY AUTHORITY

5 Year Action Plan Submitted
August 2023

Initial Proposal Vol. 1 Submitted
Includes ID of unserved and underserved locations, community anchor institutions, and proposed state-led challenge process
December 2023

Initial Proposal Vol. 2 Submitted
Includes proposed subgrantee selection process
December 2023

Initial Proposal Vol. 1 Approved by NTIA
February 2024

Begin State-Led Challenge Process
March 2024

Close State-Led Challenge Process
June 2024

State Challenges Adjudicated
July 2024

Subgrantee Pre-Qualification Process
July 2024

Subgrantee Selection Process
September 2024

Subgrantee Selection Process Complete
December 2024

Final Proposal Submitted to NTIA
December 2024

Final Proposal Approved, Funding Released
Early 2025

41

MAINE CONNECTIVITY AUTHORITY

Email: abutcher@maineconnectivity.org

Phone: 207-209-3868

Website: www.maineconnectivity.org