State of Maine
5-Year Broadband Action Plan
Broadband Equity Access and Deployment Program

Five Year Action Plan
State of Maine

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MAINE
CONNECTIVITY
AUTHORITY

1. Executive Summary

The State of Connectivity in Maine

The digital divide is leaving Mainers further behind every day. For those with no internet connection, a digital life does not exist outside a local library, a friend's house, or perhaps on a tiny mobile phone screen. Those in the digital dark cannot easily video call a homesick grandchild serving overseas who longs to see their family's faces. They cannot pivot to gain new skills or work remotely when a local mill shuts down after decades of providing them with a steady job. They cannot access telehealth services for a routine check-up for a chronic health condition or to avoid a long drive to receive mental health services.

Maine faces an acute set of challenges even beyond the rural nature and challenging terrain that make it difficult to deploy digital infrastructure. The National Telecommunications and Information Administration (NTIA) estimates that 89% of Mainers identify as a population likely to be most impacted by the digital divide, referred to as "covered populations" in the Digital Equity Act. With a state so difficult to serve and so deeply affected, the importance of the transformational opportunity presented by Broadband Equity Access and Deployment (BEAD) and digital equity funding for Maine cannot be overstated.

Maine's existing internet infrastructure is largely a patchwork of individual private networks. The infrastructure behind these networks was generally not created to support the goal of universal broadband access throughout the state. While public and private investments over the last decade have added essential infrastructure to support this goal, the job is not done, and too many areas of Maine remain unserved.

According to the Federal Communications Commission, Maine has 642,620 broadband serviceable locations, generally identified as homes or businesses where internet service is commercially available. Of those, 42,264 locations, or 6.6%, are classified as **unserved** by the Broadband Equity Access and Deployment (BEAD) program and have less than 25/3 Mbps service. Another 7.8% of locations are classified as **underserved** by the BEAD program, with service between 25/3 and 100/20 Mbps. A total of 14.4% of Maine locations do not have access to internet service of at least 100/20 Mbps.

BEAD Definition	Service Level	Locations
Unserved Locations	< 25/3 Mbps	42,264 (6.6%)
Underserved Locations	25/3 to 100/20 Mbps	50,289 (7.8%)
Total Locations in Maine		642,620

Five Year Action Plan
State of Maine

Through the BEAD Program, the National Telecommunications and Information Administration (NTIA) has charged the Maine Connectivity Authority (MCA) with developing the following Broadband Action Plan as a roadmap for distributing the state's $271.9 million BEAD funding allocation. The program specifies that MCA will first extend service to all locations in Maine that do not currently have service of at least 25/3 Mbps and then to those locations that have service between 25/3 Mbps and 100/20 Mbps.

While these service levels are set by the BEAD program, Maine's statutory definition of broadband is 100/100 Mbps, and MCA's goal is to provide 100/100 Mbps service for all locations where possible. Proposed projects under the BEAD Program that can provide 100/100 Mbps service to un/underserved locations will potentially receive a higher weighting and prioritization.

The Maine Connectivity Authority (MCA) understands the complex challenge before us. We also see the opportunities presented by connectivity and, thanks to the BEAD Program, have the resources to address the problem substantially. This combination of circumstances will lead much more of Maine to true connectivity– where current and future generations of Maine people thrive in an increasingly connected world. This is especially important for the most vulnerable among us, for whom reliable access to the internet will have the most transformative impact.

Our Goals & Vision

Maine's vision is for a statewide connectivity infrastructure that will improve the lives of Mainers now and in the future, empowering broad participation in modern society that is rooted in equality. The Maine Connectivity Authority (MCA)'s Strategic Objectives have remained consistent since its inception:

1. **Projects:** Optimize broadband deployment.
2. **Places:** Reach the last mile.
3. **People:** Advance digital equity for all.

It is important to note that MCA uses the term digital equity as defined by the [National Digital Inclusion Alliance](#):

> *"Digital equity is a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy. Digital equity is necessary for civic and cultural participation, employment, lifelong learning, and access to essential services."*

These strategic objectives and the goals and activities listed in the following pages will be the foundation of Maine's five-year action plan for connectivity.

How We Created This Plan

In preparation for this transformational investment of BEAD and digital equity funding, the Maine Connectivity Authority (MCA) launched a significant statewide engagement process. In early 2023, after months of planning, collaboration, and relationship-building, MCA hosted a three-month public engagement process with myriad audiences across various channels. Rather than conduct two separate processes, one for BEAD and one for digital equity, MCA combined them and approached the process as one—developing a Broadband Action Plan rooted in digital equity.

How is the BAP related to the Maine Digital Equity Plan?

Maine Connectivity Authority opted to combine the process of designing this plan with that of our Digital Equity Plan. Although the plans are ultimately tied to different funding sources, we developed a Broadband Action Plan and engagement period encompassing both. Throughout this plan, you will see references to the Maine Digital Equity Plan, which contains more detail about some elements of the Broadband Action Plan.

Six stakeholder groups comprising 117 individuals, organizations, and agencies contributed to the engagement process. Through the statewide **Maine Broadband Survey,** MCA collected over 3,200 responses online and in-person and was translated into 12 languages. Additionally, three formal tribal consultations were held with tribal leadership of the Mi'kmaq Nation, the Passamaquoddy Tribe at Sipayik, and the Passamaquoddy Tribe at Indian Township.

Thirteen focus groups were facilitated by MCA and hosted by organizations that serve or represent the covered populations listed in this plan. An additional 16 community meetings were held around the state to collect feedback from the general public. Almost twenty partners from Maine attended the Net Inclusion conference to explore best practices and learn from others around the country.

In addition, thirteen regional and tribal broadband partners supported this planning effort, convening 180 digital equity coalition partners, conducting 651 interviews, and creating a digital equity plan for each region and tribal community. MCA and its partners hosted the first-ever Digital Equity Workshop in the state, facilitated by National Digital Inclusion Alliance, which brought together 100 participants in early May and concluded the engagement.

What We've Learned

Summary of Assets

The first step in understanding the state of broadband in Maine was to catalog and evaluate the data, programs, and organizations currently providing connectivity, digital equity, and investment in the ecosystem. A complete list of assets is available in section 3.3.

Highlighted assets crucial to success in the MCA's mission include the following:

- Maine has a strong history of **community-led broadband and engagement,** and by building on those long-standing relationships, MCA can increase opportunities for community-based organizations, anchor institutions, utility districts, and regional entities to drive broadband adoption and digital inclusion.

- The state is served by a **strong and nimble broadband office**. The design and structure of the Maine Connectivity Authority have enabled this relatively new organization to be prepared to accommodate the rate and rigor of reinvesting federal recovery and relief dollars to address the state's connectivity needs. Combined with the integration of ConnectMaine in July 2022, MCA is now actively managing over 50 awards through the 2020 State Bond, Maine Jobs and Recovery Program, and Capital Projects Fund and building **organizational capacity** to manage BEAD funding requirements.

- With a focus on relationships, shared learning, and collaboration, MCA will continue to work with our many **partners and collaborators** to increase capacity and provide the tools and structures needed to help people connect. Key partner groups include the Interagency Broadband Working Group, Regional & Tribal Broadband Partners, Digital Equity Taskforce, and others.

- MCA is committed to using a **data-driven approach** that is transparent and targeted to ensure that investments are made through a digital equity lens and that everyone can interact with the data we use to understand investment decisions. With previous investments in central resources like the **Connectivity Headquarters for Analysis Research and Transparency** (CHART), MCA will adapt these tools with BEAD funding.

- Early in the planning process, MCA developed the **Maine Broadband Workforce Strategy** with Camoin Associates (Appendix B). This report outlines which occupations will be most critical for deploying broadband across the state, discusses how to leverage existing workforce and education systems, gauges the scale of workforce shortages, and lays out strategies to address the gaps.

- MCA is actively engaging in opportunities to expand the state's **middle mile infrastructure** and has secured financing in partnership with NTIA for the Maine Online Optical Statewide Enabling Network (MOOSE Net), along with Network Maine and others, to provide an essential backbone network to facilitate affordable broadband access to thousands of households, businesses, and institutions along those routes. MCA is also planning a deployment of Capital Projects Fund (CPF) funding directly for middle mile strategic priorities at a regional scale.

- In late 2022, the Maine Connectivity Authority contracted with the University of Maine Center on Aging to research and create the first **Digital Equity Asset Inventory** for the State of Maine. For a full listing of digital equity assets, including affordability, adoption, and others, please read the companion **Maine Digital Equity Plan** (included as Appendix D).

Summary of Barriers

The outreach and engagement period has also surfaced many barriers and needs facing Maine people, communities, and the broadband ecosystem at large. The barriers were often more intense and manifested specifically for the more vulnerable covered populations. As we move forward, MCA and its partners must prioritize resources to address these more difficult barriers first.

- Maine's **unique geography, demographics, and current broadband infrastructure** present challenges when efficiently and inexpensively deploying new broadband infrastructure.

- The **quality of internet connections** causes frustration for Mainers across the board, whether because of a slow connection, a lack of capacity to support all the devices and uses, or periodic outages. The Maine Broadband Survey showed that 40% are dissatisfied with their connection.

- **Baseline data is being updated and refined** regularly, impacting the scale of the problem and available resources and provoking communication and process challenges.

- Community broadband planning in Maine has traditionally taken place at a municipal level, but **efforts must be regionalized** for deployment at this scale to happen at a cost-effective and relatively rapid pace.

- **Access to capital at scale** is limited for public and private partners; so far in Maine, deals have been small and outside investment limited. Specifically, **financing for public ownership** at a regional scale is critical, but support and financing for utility districts and publicly owned efforts remain limited.

- Some elements of the broadband infrastructure deployment, such as the **pole attachment process**, permitting, insurance, and other regulations, require significant resources to navigate and will slow the overall process if not addressed.

- More than 3,400 new **broadband workforce** positions are needed to address the surge of investment, highlighting an increasing need to develop a talent pipeline to meet these needs.

- The **cost of internet service** continues to be a significant barrier. Almost half of the survey respondents (47%) have at least some difficulty paying for service. Many Mainers, especially those who could benefit, are unaware of initiatives like the Affordable Connectivity Program and the potential savings they could provide.

- A **shortfall of critical digital skills support** is a major barrier to Mainers leveraging the internet to advance education and work goals or access other relevant resources online. There is widespread interest in and need for digital skill building, especially among older adults and other covered populations.

- **Access to devices and technical support** to operate them is an ongoing issue. People are using friends, family, or coworkers for technical support. There are insufficient trusted and accessible sources for technical support in communities or awareness of existing supports. In our survey, just 5% went to a local institution for help, and more than a quarter simply gave up when they couldn't fix their device.

Our Goals, Strategies & Approach

Drawing from rich participation and data generated through the planning process, MCA has synthesized the information into the following strategies, which MCA shared for public feedback in early June 2023. Following a month of public comment, reflection and revision, MCA integrated the feedback into this final report. In the following document, MCA proposes primary strategies and related activities to achieve affordable universal access to broadband in Maine. For a complete listing of all planned activities, please see Section 5.3.

1

Prioritize funding to maximize impact, balancing urgency, universality, and equity

This dynamic balance will serve as the "North Star" for Maine's Broadband Action Plan as we seek to stretch funds to optimize the impact of investments. We will focus on balancing the tension of designing comprehensive solutions while remaining focused on priority populations. Keys to success include expanding a decision-making framework to evaluate where we can invest to maximize impact, to leveraging Maine's mapping and analysis capacity.

2
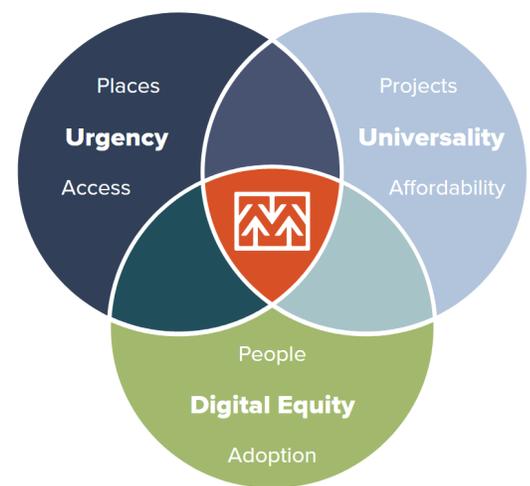
Proactively drive investments as a comprehensive portfolio

Develop and implement a rolling funding application process and a managed flow of project development and technical assistance to allow for braided funding sources and an increased alignment of resources. Building on Maine's tradition of community-supported broadband solutions and open dialogue with internet service providers, MCA will provide transparent data-driven decisions and prioritization and technical assistance to communities and ISPs, so they will be able to pursue broadband planning at the local or regional level while maintaining MCA's ability to distribute funds efficiently and systematically.

3

Optimize broadband deployment

Decrease barriers to delivering broadband at scale and speed, braiding funding and leveraging resources. By identifying data and policy challenges to address these barriers, MCA can improve efficiency and reduce costs. To ensure success, MCA will enable pathways for educational, training, and employment opportunities to ensure there is the human capital to build and maintain infrastructure. MCA will continue to build, own, and support middle mile investments to create much-needed backhaul infrastructure and identify pathways to access complementary capital sources to build Maine's diverse and healthy internet ecosystem.

Expand and Enhance the Foundation for Digital Equity

Ensure that all Mainers, especially the most disadvantaged, have access to and can use information and communications technologies by sustaining and growing that digital equity foundation. Maine must invest in the core capacity, tools, and resources to help advance digital equity across our state. These investments include sustaining digital equity staffing and adjusting funding programs to ensure that digital equity is centered when making program decisions and prioritizing investments. A statewide cohort of key partners across organizations and agencies will play a key role in the continued development of these efforts.

Focus on Affordability

Improve the affordability of internet service so the high cost of reliable internet is no longer a significant barrier, and ensure that more Mainers are aware of the support available through initiatives like the Affordable Connectivity Program. MCA will help break down this barrier, particularly for the covered populations for whom this need is even more acute, through targeted education campaigns, critical partnership development, collaboration in the affordable housing space, and new device donation, refurbishment, and lending programs.

Raise Awareness and Strengthen Feedback Loops

Drive demand for services by understanding how people need and want to use the internet. MCA will collaborate to design and launch statewide educational campaigns promoting workforce and training opportunities, internet safety, device refurbishment, and general awareness of broadband benefits and digital skills. By providing a centralized structure for all things related to broadband, with practical tools and resources for individuals, communities, and organizations, we will enable the participation of partners and the general public around the state. Regular progress monitoring and data sharing will increase transparency and support communication of our collective progress.

Looking Toward the Future

With approximately 42,000 Maine locations unserved and nearly 52,000 underserved, more than 1 in 7 Maine homes or businesses suffer from inadequate service and cannot realize the benefits of broadband. BEAD is the chance to move toward a state of universal broadband access and digital equity for Mainers who need it most. In this Five Year Action Plan, the Maine Connectivity Authority has laid out a road map to utilize this transformational funding to address the needs identified through an exhaustive planning and engagement process. With a network of collaborators across the state, MCA is committed to a multi-year, multi-disciplinary approach, leveraging all necessary resources to bring broadband to all.

2. Overview of the Five-Year Action Plan

2.1 Vision

Maine Connectivity Authority (MCA)'s vision is for statewide connectivity infrastructure that will improve the lives of Mainers now and in the future, empowering broad participation in modern society. At its core, MCA exists to plan, invest in, deploy, and enable universal access to affordable, high-speed broadband that will dramatically improve the quality of life of Mainers. Private investment alone has proven insufficient to ensure that all Mainers get access to and can adopt the secure, affordable, reliable, competitive, sustainable, and forward-looking internet access essential to modern society. And so, MCA is designed to be proactive in decision-making, to explore public-private partnerships, to deploy a range of financial tools, and to enable a strategic network of digital infrastructure and digital equity for Maine's future.

While high-speed internet access is essential to modern life, as of July 2023, **42,264 Maine locations are unserved by NTIA's definition** (service of at least 25/3 Mbps), **while another 50,289 locations have unreliable & slow internet service** (25/3 to 100/20 Mbps). High-speed options may exist for many Mainers, but they are simply cost-prohibitive.

Maine's BEAD Implementation Timeline

This implementation timeline has been set by NTIA and following it will allow Maine to gain access to BEAD funding.

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 Selection Process Begins
August 2024

To address these barriers and build from our strengths, the broadband action plan and digital equity strategy for Maine strive to ensure that every person in our state, regardless of their background, resources, circumstances, identity, or community, will have equitable access to the digital world, including:

- Affordable, reliable internet connectivity;
- An affordable device that meets their needs;
- The opportunity to develop digital skills and access technical support;
- Tools and information to protect themselves and their families online; and
- Online state resources that are inclusive and accessible for all.
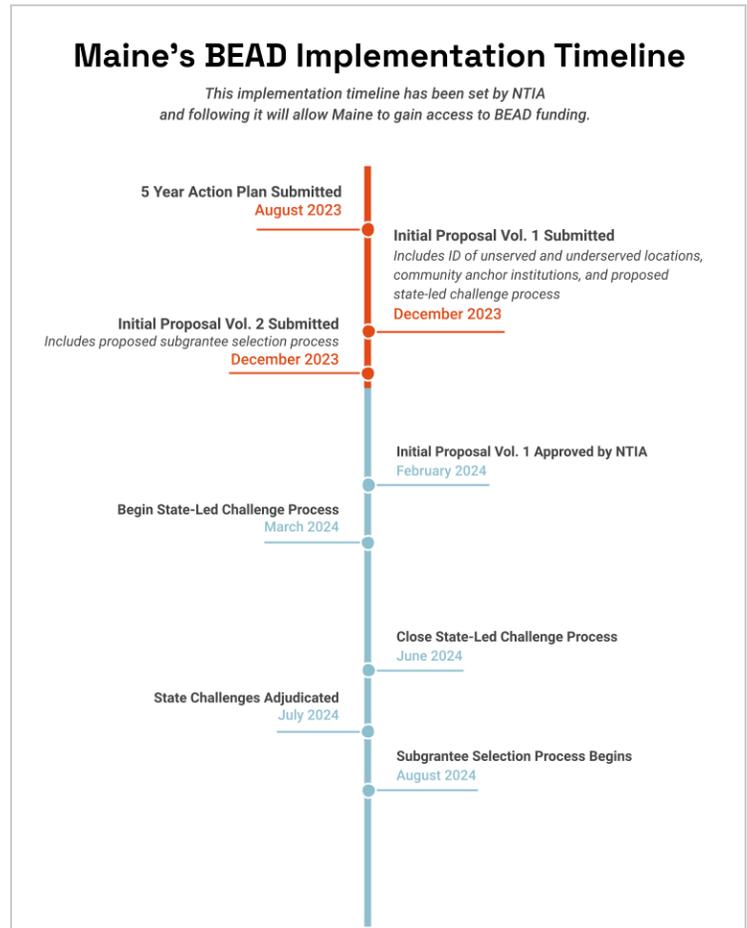
Ensuring this access will empower Maine's people and communities to connect within and beyond our borders, creating pathways of opportunity to realize the full economic, educational, health, social, civic, and cultural benefits of being connected. Focusing on our goals of securing access, ensuring affordability, and supporting adoption reinforces MCA's core message– **there is a place in Maine's economy and our communities for everyone.** Maine will embrace the following principles to accomplish these goals, as reflected in our plan's priorities:

1. **Expand a data-driven, transparent approach.** Utilize a framework to ensure that MCA makes investments with a digital equity lens and that everyone can interact with the data used to make those decisions.

2. **Grow and strengthen the ecosystem**. Nurture relationships, shared learning, and collaboration; increase capacity; and provide the tools and structures partners need to help people get connected.

3. **Leverage networks of opportunity.** Prioritize investments and partnerships that capitalize on existing relationships with individuals and communities facing more access and adoption barriers.

4. **Get creative.** Support and learn from various approaches from place to place and population to population, recognizing that no one has all the answers, and every place and community is different.

5. **Leverage existing assets.** MCA analysis shows that BEAD and Digital Equity allocations will not be enough to complete this work, so it will be crucial to leverage these federal investments with other capital sources.

6. **Remove systemic barriers to deployment** to maximize the impact of all investments.

7. **Shout it from the rooftops.** Tell a broad range of stories in various mediums to illustrate the real impact of the digital divide on people and communities and the positive impact of achieving our goals.

2.2 Goals and Objectives

The strategies to advance Maine's broadband and digital equity goals will also contribute to larger state goals to build a thriving economy that benefits individuals and industries, increase educational attainment, support age-friendly communities, and improve health outcomes through telehealth. The objectives below represent a refinement of MCA's existing strategic goals and the newly articulated broadband and digital equity goals developed due to the process undertaken to create this Five Year Action Plan for the State of Maine.

Strategic Goal 1. Prioritize funding to maximize impact, balancing urgency, universality, and equity

This dynamic balance will serve as the "North Star" for Maine's Broadband Action Plan as we seek to maximize funds to optimize the impact of investments. We will focus on balancing the tension of designing solutions for everyone while prioritizing the most disadvantaged.

- Center digital equity in infrastructure projects and other programs to prioritize investment impact through an enhanced broadband mapping and analysis platform known as the **Connectivity Headquarters for Analysis Research and Transparency** (CHART), including a multi-criteria decision-making framework and a progress monitoring dashboard.

- BEAD funding will be utilized and distributed by MCA to first deploy infrastructure to the approximately **42,000 unserved locations** across the state, addressing affordable access for those with no connection. The next priority for these funds will be the **52,000 locations considered underserved** by NTIA.

- Lead the State of Maine's *Interagency Broadband Working Group* to **coordinate broadband implementation with state plans/strategies,** including capital planning, climate resilience, affordable housing, economic development, transportation, workforce, education, etc.

- Establish a **Connectivity Hubs Program** in 2024-2026 to support education, workforce, and telehealth programming and public access to the internet, devices, and digital skills at community anchor institutions identified for maximum potential impact.

Strategic Goal 2. Proactively drive investments as a comprehensive portfolio

Develop and implement a revamped deployment system to enable rolling funding applications and a managed flow of project development and technical assistance to allow for braided funding sources and an increased alignment of resources.

- The **Connectivity Headquarters for Analysis Research and Transparency (CHART)** will serve as a decision-making framework for how expanded criteria inform funding, priority areas, and partnerships, such as looking at areas with high percentages of covered populations, homes without a device, or layering in other digital equity factors such as income, educational attainment, and/or gaps in programs and resources identified in the digital equity asset inventory as part of the evaluation for infrastructure investments.

- Establish a robust **grant administration process** to help inform resource allocation across all programs and opportunities

- Build on Maine's history of **community-supported broadband solutions** using the **CHART** to provide **transparent data-driven decisions and prioritization** and technical assistance to communities so that they can pursue community broadband planning at the local or regional level.

- Facilitate **ongoing dialogue and engagement with Internet Service Providers** to assess and align opportunities for deployment to complement and maximize their private investment.

- Execute **existing infrastructure programs such as Connect the Ready, Reach Me, and Jumpstart** to enable diverse technologies and models to increase competition and options that lower costs for the projects and consumers.

- Establish a **resource bank** for technical assistance and shared services, including general technical assistance, data analysis, network design, legal and financial consulting, and grant procurement.

Strategic Goal 3. Optimize Broadband Deployment

Decrease barriers to delivering broadband at scale and speed, braiding funding and leveraging resources. By identifying data and policy challenges to address these barriers, MCA can improve efficiency and reduce costs.

- Unlock access to **complementary capital**, financing solutions, and other resources to ensure the opportunity for a diverse and healthy ecosystem and various project ownership models.

- Support **public ownership models**, including for municipal, regional, and broadband utility districts, enabling diversification of ownership structures in Maine.

- Coordinate a multi-pronged approach to address structural, data, and policy challenges to the **utility pole process** to improve efficiency and reduce costs.

- Enable **workforce pathways** for educational, training, and employment opportunities to ensure Maine has the human capital needed to support this unprecedented influx of funding. Promote broadband career awareness & exploration by creating a Maine Broadband Career Hub and leveraging partnerships to create a talent pipeline.

- Implement additional critical **middle mile investments** to create much-needed backhaul infrastructure and improve access to affordable last mile.

Strategic Goal 4. Expand and Enhance the Foundation for Digital Equity

Ensure that all Mainers, especially the most disadvantaged, have access to and can use information and communications technologies by sustaining and growing that digital equity foundation.

- **Formalize and ensure the continuity of the digital equity infrastructure** in Maine by more than doubling NTIA's Digital Equity investment by **launching a $15 million Digital Equity Fund**.

- Transform the **Digital Equity Asset Inventory** into an interactive online resource to provide information about digital inclusion programs and resources.

- Produce **digital equity-focused events** like an annual Digital Equity Workshop to drive collaboration, support shared learning, monitor progress, and communicate impact.

- Act as a **partner and convenor**, providing structure to bring together the Digital Equity Taskforce, Regional and Tribal Broadband Partners, Interagency Broadband Working Group, and others.

- Partner with the National Digital Equity Center (NDEC) to support a **statewide cohort of digital navigators** across organizations and agencies, hosting a central digital navigator training and sharing information and best practices.

- Support a **Tribal Broadband Initiative** to support connectivity and digital equity for Maine Tribes.

Strategic Goal 5. Focus on Affordability

Improve the affordability of internet service so the high cost of reliable internet is no longer a significant barrier, ensuring that more Mainers are unaware of the available support through initiatives like the Affordable Connectivity Program.

- Lead and expand the **ACP4ME Campaign**, which provides support statewide with materials and training for partners to conduct outreach and enrollment activities.

- Engage with our partners to **explore best practices and other policy solutions, programs, and pilots** that could provide support if the ACP is not funded beyond 2024.

- Work with the affordable housing community to research, launch, and fund an **Affordable Housing Connectivity Program,** ensuring that the thousands of people living in affordable housing units in Maine have affordable access and the support they need to fully connect, including apartment Wi-Fi, digital skill training, affordable devices and technical support, and internet safety education.

- Identify and incentivize options for **multiple services strategies for extremely high-cost unserved locations** and underserved locations to increase competitive markets where possible.

Strategic Goal 6. Raise Awareness and Strengthen Feedback Loops

Drive demand for services by understanding how people need and want to use the internet. MCA will collaborate with partners to design and launch statewide educational campaigns promoting workforce and training opportunities, internet safety, device refurbishment, and general awareness.

- Launch a **Maine Digital Broadband Career Hub** as the go-to place for sharing industry information about careers in broadband and education/training opportunities aligned with other Infrastructure career opportunities

- Regular **progress monitoring and data sharing** will increase transparency and support communication of our collective progress.

- Launch an **Internet Safety for ME Campaign**, creating various tools to be employed by trusted partners and leveraging media and law enforcement engagement.

- Launch an **Affordable Devices for ME Campaign** encouraging and enabling device donation for refurbishment and redistribution to covered populations.

- Identify and create a series of video and photographic **Digital Equity Stories** illustrating the impact of the digital divide, examples of digital inclusion programs, and the impact of digital equity on people's lives and communities.

The strategic goals and associated objectives outlined above align with many of the State's economic, workforce, educational, healthy aging, and telehealth goals, as detailed further in Section 5.7 of this plan.

3. Current State of Broadband And Digital Inclusion

3.1 Existing Programs

Table 1: Current Activities that the Broadband Program/Office Conducts (listed in alphabetical order)

Activity Name	Description	Intended Outcome(s)
ACP4ME Campaign	Maine initiative to increase awareness of and enrollment in the Affordable Connectivity Program, a Federal Communications Commission (FCC) benefit program that helps ensure that households can afford broadband internet.	The ACP4ME campaign is MCA's new statewide initiative to increase awareness and enrollment in the ACP. In partnership with Education SuperHighway, a national non-profit working to close the broadband affordability gap, we are building a statewide coalition of local communities and trusted institutions to raise awareness of this critical program through earned and social media. The intended outcome is to increase enrollment in the ACP by eligible households. Through the ACP4ME campaign, MCA aims to increase enrollment in the Affordable Connectivity Program by 64,000, going from 27% of eligible households in 2022 to 54% of eligible households by 2029. MCA's network includes our Regional & Tribal Broadband Partners, who are trained and equipped to help people enroll in the ACP, and four organizations in Maine which received Affordable Connectivity Outreach Program grants through the Federal Communications Commission (FCC). Affordable Connectivity Outreach Program awardees include the Aroostook County Action Corporation, Four Directions Development Corporation, the National Digital Equity Center, and the Sunrise County Economic Council. Read more here: maineconnectivity.org/affordability

Activity Name	Description	Intended Outcome(s)
ConnectMaine Authority and Maine Connectivity Authority High-Speed Internet Infrastructure Bond	In July 2020, voters overwhelmingly supported a $15 million High-Speed Internet Infrastructure Bond. The $15 million bond represented the first significant funding that ConnectMaine had received in its 12-year history.	In 2021 and 2022, ConnectMaine approved two rounds of funding, awarding 22 projects for a total of $21.5 million. The funding sources for these were the $15 million bond and Capital Project Funds. Read more here: maineconnectivity.org/connectmaine
Connect the Ready Grants	Up to $70 million from Capital Projects Fund is committed to regional-scale projects developed in collaboration with ready public-private partnerships.	The intended outcome was to award funds for projects that result in broadband connections (100/100Mbps) to more than 17,000 potential subscriber locations. In early 2023, MCA awarded over $40 million to 14 projects, leveraging another $21 million to serve 18,300 connections. Read more here: maineconnectivity.org/connect-the-ready-grants
ConnectMaine Authority (functional integration)	The ConnectMaine Authority is a public instrumentality of the Maine state government, whose mission is to facilitate the universal availability of broadband to all Maine households and businesses and help them understand the valuable role it can play in enriching their lives and helping their communities thrive. In the fall of 2022, ConnectMaine became a co-located unit of MCA.	The functional integration of MCA and ConnectMaine operations provides a "single door" solution and simplifies access for Maine citizens, broadband collaborators, and governmental partners. The State can efficiently plan, develop, fund, and maintain our broadband infrastructure by streamlining operations and financial resources. This will allow MCA to accelerate the pace of planning and deployment of funds, building from Maine's model of high-impact broadband policies and practices. ConnectMaine funding, responsibilities, and staffing have been contractually assigned to MCA by the ConnectMaine Authority Board of Directors.

Activity Name	Description	Intended Outcome(s)
Data Collection	MCA's work relies on further developing and utilizing the MCA's mapping platform. The ConnectMaine Authority initially developed this data and mapping tool which will continue to evolve and serve MCA as it has assumed the state's data collection duties.	MCA's mapping platform and data collection will help the state make data-driven decisions, prioritize funding for rural, unserved areas, and maximize the impact of federal funds flowing to the state. The Connectivity Headquarters for Analysis Research and Transparency (CHART) facilitates the aggregation, visualization, and convergence of many data and map layers, displaying internet service and network technology availability near potential subscriber locations.
Digital Equity Initiative	MCA is working to advance digital equity for all: to ensure that all Mainers, especially those that are most impacted by the digital divide, have access to and can use information and communications technologies so they can fully realize all of the civic, economic, health, educational, social and other benefits that they provide.	MCA is accomplishing this by facilitating the development of Maine's Digital Equity Plan, identifying assets and facilitating the development of the Maine Digital Equity and Inclusion Asset Inventory, developing and managing the ongoing work of the Digital Equity Taskforce, working with impacted people and communities to integrate broadband into other community programs and resources (such as affordable housing or food security programs, etc.), and expanding digital equity within healthcare, education, and economic development through investments in community hubs and affordable device or device lending programs.
Get Ready Community Support Grants + Regional and Tribal Broadband Partnerships	Approximately $13 million for accelerating community broadband planning and organizational capacity at a regional scale through tailored technical assistance.	The intended outcome was to award funds to eligible areas that have already begun community-driven broadband planning, defined connectivity goals, engaged and assessed their community to determine a distinct ownership and/or partnership model, and are focused on applying for state infrastructure funding in Spring 2023. The program also supports eligible areas embarking on broadband planning through a mandate from their municipality's governing body. Our future program evaluation can be found in Appendix A. In December 2022, MCA awarded 12 projects to 20 communities. Read more here: maineconnectivity.org/get-ready-community-support

Activity Name	Description	Intended Outcome(s)
Help for Broadband Utility Districts (BUDs)	Broadband Utility Districts (BUDs) are community-based organizations formed to build and operate broadband networks to increase access to high-speed internet. BUDs provide an ownership model critical in helping enable regional scale impact for improved connectivity and digital equity in Maine.	The Maine Connectivity Authority is developing a strategy to engage critical stakeholders, deploy targeted technical assistance, and craft appropriate funding programs to help BUDs fulfill their potential as a key way to enable regional scale impact for improved connectivity and digital equity in Maine. In partnership with FAME, the Maine Municipal Bond Bank, and other partners, MCA will undertake an engagement process as we develop engagement & coordination, technical assistance, and financing support. Success in removing barriers for BUDs will clear the way for diversification in ownership models for broadband in Maine, which can create competition and provide alternative ownership models for communities. Read more here: maineconnectivity.org/buds
Jumpstart Connectivity Initiative Grants	Jumpstart provides up to $2 million for pilot projects using wireless technologies to improve connectivity in areas of the state with no service.	Jumpstart aims to trial technologies covering areas where geography, topography, population density, poverty level and/or lack of enabling infrastructure prevent efficient wired broadband infrastructure investment. In December 2022, MCA awarded $1.05 million to three projects in nine communities. Read more here: maineconnectivity.org/jumpstart

Activity Name	Description	Intended Outcome(s)
Middle Mile Initiative	MOOSE Net is a strategic initiative created by the Maine Connectivity Authority where MCA has joined with key partners for a $53 million project to construct the Maine Online Optical Statewide Enabling Network (MOOSE Net).	This project includes $30 million in funding secured from NTIA's Enabling Middle Mile Broadband Infrastructure Program. The project was developed in collaboration with partners including NetworkMaine, Maine Department of Transportation, Consolidated Communications, University of Maine System, Maine Office of Information Technology, and other leading statewide internet service providers and telecommunication companies. MOOSE Net's expansion will deploy open-access fiber "highways" and provide an essential backbone network to facilitate affordable broadband access to thousands along the proposed routes. This will add resiliency to Maine's internet networks, eliminate single points of failure, connect community anchor institutions, and create a robust platform for network expansion. Read more here: maineconnectivity.org/middle mile
New England Clean Energy Corridor (NECEC) Awards	These funds were available to impacted communities in Franklin and Somerset County to expand broadband, including last mile connections. These funds are in accordance with the Maine Public Utilities Commission's Stipulation agreement, delineating a broadband benefit as part of the Public and Rate Payer Benefits of the New England Clean Energy Corridor (NECEC).	In February 2022, ConnectMaine and MCA awarded just over $1 million to 49 communities in Franklin and Somerset Counties.

Activity Name	Description	Intended Outcome(s)
NTIA Broadband Infrastructure Program (BIP) "Mountains to Sea" Awards	In Fall 2021, ConnectMaine applied for and was awarded a grant of $28 million as part of the National Telecommunications and Information Administration (NTIA) Broadband Infrastructure Program.	This grant was designed to help spread broadband services to the many rural communities in Maine that have suffered from a lack of internet access. In 2021, ConnectMaine awarded $28 million to 7 regional public-private partnerships for fiber projects throughout rural Maine. Read more here: maineconnectivity.org/connectmaine
Reach Me Line Extension Incentives	Reach Me Line Extension incentives optimize broadband deployment by incentivizing internet service providers (ISPs) to complete their existing networks by extending service to all unserved locations in their service areas.	Incentives to reach at least 5,000 locations with broadband service (100/100 Mbps). In April 2023, MCA awarded $20 million to extend broadband service to 6,300 potential subscriber locations across 14 counties and 74 communities Read more here: maineconnectivity.org/reach-me
Regional and Tribal Broadband Partners Grants	The Regional & Tribal Broadband Partners Program helps deploy, sustain and maximize the benefits of broadband infrastructure investment in all state regions. Each partner will build and lead digital inclusion efforts in their region and tribe while supporting community and regional-scale broadband infrastructure solutions and investments. Partners receive funding and support from the MCA in partnership with the Maine Broadband Coalition (MBC) and National Digital Equity Center (NDEC).	Program Goals include supporting community-driven broadband solutions that ensure universal connectivity, strengthening and growing the number of partners thinking about digital equity and inclusion, and creating alignment and coordination between communities, regions, and the state. In 2022, MCA awarded $3 million for digital inclusion efforts and support for regional-scale broadband solutions, with 13 regional organizations covering the state. Funding for these partners significantly increased capacity to support broadband and digital inclusion (9 FTEs to almost 25 FTEs). Partners produced 13 regional and tribal digital equity plans to contribute to the state's plan, convened 180 coalition partners, and conducted 651 interviews with individuals and organizations during the outreach and engagement period. Read more here: maineconnectivity.org/regional-broadband-partners

Activity Name	Description	Intended Outcome(s)
Utility Pole Strategy	MCA's investment in broadband infrastructure over the next 3-5 years will place unprecedented pressure on an already daunting and opaque process. This leads to cost overruns and construction delays and can even deter projects from happening altogether.	MCA is taking a proactive approach in the pole process by convening collaborators outside the regulatory process, sharing best practices, providing targeted technical assistance and advocacy, and strategically offsetting costs. MCA can ensure that state and federal funding is used efficiently and effectively to deploy broadband to Maine homes and businesses as quickly as possible. Read more here: maineconnectivity.org/utility-poles

Table 2: Current and Planned Full-Time and Part-Time Employees

Current/ Planned	Full or Part-time Position	Position	Description of Role
Current	FT	**President**	Strategic leader, building the MCA team, leading policy, program and performance with Board and partners.
Current	FT	**Chief Financial Officer**	Ensuring MCA has the right systems, controls and resources in place. Assure the team understands the nuance of the organization's mandate and funding requirements.
Current	FT	**Broadband Infrastructure Director**	Provides leadership and oversight of the agency's infrastructure, as well as technical input and perspective on strategy. Subject matter expert in broadband network engineering, design, operations and sales, which is critical in advancing the State's connectivity goals.
Current	FT	**Strategic Partnership Director**	Establishing, structuring and sustaining the partnerships necessary to realize MCA's goals and leads digital equity programming.
Current	FT	**Economic Development Director**	Serves as the strategic lead for the BEAD Planning program and processes. Provides leadership in economic initiatives, including workforce development.
Current	FT	**Program Operations and Communications Director**	Leads program operations and communications. Oversees a team of grant managers and develops relationship management systems.
Current	FT	**Community & Regional Partnerships Senior Manager**	Manages all outreach to communities across Maine. Ensures community voice influences strategy and implementation of all initiatives.
Current	FT	**Research & Analytics Senior Manager**	Manages data analysis, including managing vendors, to drive and inform MCA's progress toward goals and objectives.

Current	FT	**Operations Manager**	Provides support and assistance to the President and senior leadership team. Manages HR functions. Works to keep the team organized and aligned.
Current	FT	**Workforce Development Manager**	Supports communities and industry partner efforts aligned with preparing the workforce with the skills to support the large-scale buildout of broadband infrastructure leveraging subject matter expertise in the strategic initiative and partnership building.
Current	FT	**Digital Equity Manager**	Provides support and leadership on digital equity and inclusion initiatives and partnerships. Leverages subject matter expertise in areas of digital equity, inclusion and literacy, community, and organizational planning and development.
Current	FT	**Accounting Manager**	Ensure proper accounting structure and capacity, which allows MCA to effectively manage the variety of federal funds received, and facilitates the success of the organization's growth and strategic mandate. Works across all aspects of the MCA's financial activities and controls, primarily focused on ensuring accurate, timely, and compliant accounting and reporting.
Current	FT	**Communications Manager**	Coordinates the recruitment, application, and award processes for broadband grant programs. Such coordination includes translating program application guidance, communicating the opportunities to potential applicants, and preparing program documentation and award announcements.
Current	FT	**State Policy and Agency Partnerships Manager**	Provides support and leadership on digital equity and inclusion initiatives and partnerships by serving as a gateway for interagency working groups and constituency communication. Leads the ACP4ME campaign, policy initiatives, and pole attachment strategy.
Current	FT	**Infrastructure Grant Manager**	Effectively manages the variety of federal funds received and facilitates MCA growth and strategic mandate by working across all aspects of the MCA's financial activities and controls, primarily focused on ensuring accurate, timely and compliant reporting, supported by 3rd party service providers.

Current	FT	**Digital Equity and Partnerships Grant Manager**	Plans and manages the development and implementation of digital equity grant programs, including coordination of MCA staff and consultants in the design of programs, application review process, and evaluation of programs.
Planned	FT	**Accounts Payable & Procurement Associate**	Verification and processing of vendor invoices and grant reimbursement requests, new vendor setup, and overseeing MCA's procurement process for all vendors.

Table 3: Current and Planned Contractor Support

Current/ Planned	Full-Time/ Part-time Position	Function	Description of Role
Current	PT	**Program Liaison, Maine Department of Transportation**	Head of Maine DOT's Intelligent Transportation Systems section and Transportation Management Center, assisting with broadband integration across state agencies.
Current	PT	**Communications Vendor**	Support for communications, social media, media relations, graphic design and marketing
Current	PT	**Audit/Finance Vendor**	Audit/finance support
Current	PT	**Compliance and Reporting Vendor**	Assistance with compliance and reporting before hiring staff for these roles, winding this down as staff takes over these functions
Current	PT	**IT Vendor**	Information technology support for remote working team
Current	PT	**HR/Team Building Vendors**	Vendors to assist with HR and benefits administration, recruiting, as well as team building and facilitation of strategic sessions

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Table 4: Broadband Funding

Source	Purpose	Total	Allocated	Expended	Available
State Broadband Assessment Fee - via CME service contract	CME service fee contract - MCA providing financial, governance, compliance, and other relevant administration services to ConnectME. Funds are used for various purposes, including supporting the MCA staff and other operational expenses.	Approx $2 MM per annum	$4 MM	$1.3 MM	$0 MM
ARPA - Treasury - SLFRF	Maine Jobs and Recovery Program - TA work, non-fiber infrastructure, fiber infrastructure	$21 MM	$8 MM	$3.5 MM	$13 MM
ARPA - Treasury - CPF	Capital Projects Fund - Infrastructure	$128 MM	$74 MM	$4.1 MM	$54 MM
IIJA - NTIA - BEAD	BEAD Planning	$5 MM	$5 MM	$1.2 MM	$3.8 MM
IIJA - NTIA - BEAD	Digital Equity Planning	$0.5 MM	$0.5 MM	$0.4 MM	$0.1 MM
IIJA - NTIA - Middle Mile	Middle Mile network - MOOSE Net	$30 MM	$30 MM	0	0 (Award effective date of 7/1/23)
IIJA - NTIA - BEAD	Last Mile Infrastructure	$272 MM	N/A	N/A	$272 MM (Award not available for allocation/ expenditure until 2024)
IIJA - NTIA - BEAD	Digital Equity Programming	TBD - estimated $15 MM	N/A	N/A	N/A (Award estimated Oct/Nov 2023)

3.2 Partnerships, Collaborators and Stakeholders

Table 5: Partners

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
Broadband Infrastructure Capital Market Taskforce	Collaboration of leaders in banking and finance, philanthropy, legal, community development financial institutions, venture capital, and executives with experience in strategic financing who examine the challenges in how the broadband market has interacted with financial markets in Maine to date, challenges and opportunities, evaluate the diversity of funding sources, and inform MCA and partner actions to recommend and implement capital market-related items.
Digital Equity Task Force	Forty partners are engaged as advisors to ensure that covered populations are served through implementing the Maine Digital Equity Plan, and many will be directly involved as implementation partners. A portion of the task force may serve as a grant decision-making or advisory body for Connectivity Hubs or other digital equity funding programs. These partners will also be education parts and awareness builders about digital equity and inclusion programs and resources.
EducationSuper Highway	EducationSuperHighway (ESH) is a national nonprofit with the mission to close the digital divide for the 18 million households that have access to the Internet but can't afford to connect. ESH provides MCA with research and best practices and assists with the Maine-branded ACP4ME enrollment campaign and toolkit.
Federal Reserve Bank of New York	Partners in research, including identification of best practices in Community Reinvestment Act practices for banks to supplement available federal funding and participation in the Broadband Infrastructure Capital Markets Taskforce.
Give IT. Get IT.	A statewide nonprofit providing low-cost and high-quality computers to individuals and families, IT needs and goals assessment, and training and technical support. Give IT. Get IT. will partner in device access, training and technical support to help the state reach accessibility and digital equity goals throughout BEAD implementation.

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
Governor's Office of Policy Innovation and the Future	A state office created by Governor Janet Mills to collaborate across state agencies, stakeholders, and the public to recommend innovative policy solutions for critical issues facing Maine, including climate change, workforce development, housing, issues facing youth and older Maine people, and more. This office partners with MCA regarding how broadband is critical to innovative policy solutions, particularly community resilience and economic prosperity.
Interagency Broadband Working Group	Implementation partners, particularly for strategic broadband work across state agencies, partnerships evaluating shared services, infrastructure coordination, procurement as well as support in the ACP enrollment and other affordability strategies, digital skill building, affordable device access, inclusive government resources, and internet safety.
Maine Broadband Caucus	A bipartisan, bicameral, issues-based caucus of the Maine Legislature was created to improve the effectiveness and reach of policy designed to bridge the digital divide in Maine by fostering a path to universal broadband and digital inclusion and equity throughout the state. MCA will continue working with the Caucus to advocate for policy solutions to effect changes identified through the Five Year Action Plan and Maine Digital Equity Plan.
Maine Broadband Coalition (MBC)	A network of policy advocates, businesses, non-profit organizations, government agencies, and individuals advocating for Maine's digital future. MBC staff has been assisting MCA in working with the Regional and Tribal Broadband Partners and other outreach and engagement work, including policy analysis and advocacy. They also staff the Maine Broadband Caucus of the Maine Legislature. They will continue to work to augment MCA's capacity and support RTBPs and digital equity work on the ground throughout implementation.
Maine Community College System	Maine's seven community colleges offer diverse programs and services designed to meet Maine's workforce needs regionally and statewide and prepare individuals for continued education at four-year colleges.
Maine Department of Economic and Community Development (DECD)	DECD works collaboratively to support business development through available resources such as tax credits, reimbursements, research and development credits, to capital loans and even direct investment.

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
Maine Department of Education (DoE)	Maine's Department of Education administers the Maine Learning Technology Initiative (MLTI), which provides device access for Maine's public school students. DoE has recently launched the Maine Learning Technology Initiative 2.0, which has expanded beyond device access to also focus on access to applications and learning tools.
Maine Department of Transportation (Maine DOT)	Maine's Department of Transportation provides part-time staff support to MCA's broadband efforts through a Program Liaison, the head of their Intelligent Transportation Systems section and Transportation Management Center, assisting with broadband integration across state agencies.
Maine State Chamber of Commerce (MSCC)	Maine's largest business association, the MSCC will continue to connect MCA to the business community and advocate for closing the digital divide, which is critical to Maine's economic success.
Maine Telehealth Advisory Group	Advisory group to Maine Department of Health and Human Services charged with evaluating technical difficulties related to telehealth and improving services statewide.
Maine Town, City, and County Management Association and Maine Municipal Association	Partners in broadband deployment by helping MCA to understand each community's needs, challenges, and opportunities for regional collaboration, models for scale, and local engagement. Assist with project identification, and raise local awareness of funding available for community projects.
Maine's Public Libraries & the Maine School and Library Network (MSLN)	Maine's 255 public libraries play a crucial role in supporting digital equity and inclusion and are one of the few local public services in rural areas. A key role of libraries is their ability to serve as an access point for free, publicly available wireless internet through the MSLN, which connects nearly 1,000 schools and libraries across the state. Public libraries' other important roles include device access, technical support, and training.
National Digital Equity Center (NDEC)	NDEC is a national nonprofit organization in midcoast Maine with a mission to close the digital divide. The organization has digital navigators on staff, offers digital skills classes, and works to provide devices and technical support through partner organizations to individuals who need them. NDEC offers over 40 classes and digital skills assessments and will continue collaborating on implementing many of the state's digital equity strategies.

Partners	Description of Current or Planned Role in Broadband Deployment and Adoption
NetworkMaine	A unit of the University of Maine System providing Maine's Research & Education community with access to connectivity and services to deliver on their missions. Responsible for the design and operation of MaineREN, and provides K-12 schools and public libraries in the state with connectivity at little or no cost through the Maine School and Library Network project.
Northeast Telehealth Resource Center	A federally funded resource center to assist with technical assistance for developing, implementing, and expanding telehealth services in New England and New York.
Regional and Tribal Broadband Partners (RTBP)	Organizational partners in every region of the state to support community planning for infrastructure solutions and digital equity planning for each region and Tribe. Thanks to the work of these partners, there are now 13 separate regional and tribal digital equity coalitions with 180 partners engaged so far.
Workforce Advisory Committee	Advisors and practitioners to ensure underserved populations are engaged in broadband workforce strategies.

3.3 Asset Inventory

Maine Connectivity chose to combine the process and simultaneously develop a Broadband Action Plan, including both the Five Year Action Plan and Digital Equity Plan. To support the drafting of these plans, MCA and its collaborators conducted significant outreach and engagement between January 2023 and June 2023 to understand the assets available across the state.

- The statewide Maine Broadband Survey collected over 3,200 responses online and in hard copy versions and was translated into 12 languages.

- Thirteen focus groups were facilitated by MCA and hosted by organizations that serve or represent the covered populations.

- 16 community meetings were held around the state to collect feedback from the general public.

- Industry engagement included in-depth interviews with ten internet service providers and one industry roundtable session with 17 participants.
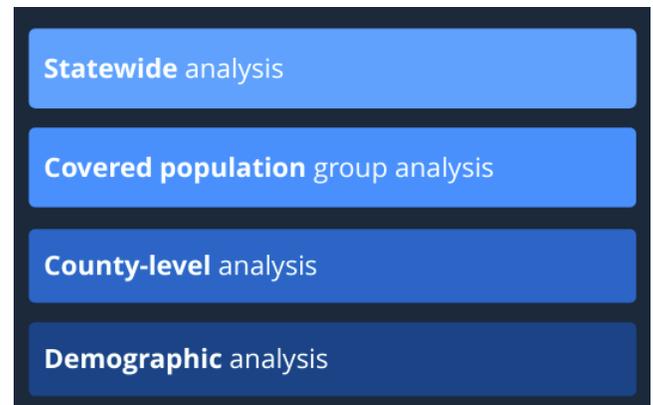
- Workforce process engagement was particularly strong, including trade union representation, and was also factored into the process by including the Maine Broadband Workforce Strategy.

The sections below outline the key broadband deployment, adoption, affordability, and digital equity assets MCA has identified as part of the planning process. For a more complete review of specific digital equity assets, please see the Maine Digital Equity Plan, included in the Five Year Action Plan as Appendix D.

3.3.1 Broadband Deployment Assets

Partnerships

MCA is partnering with the Maine Department of Transportation (MaineDOT) to analyze their three-year Work Plan for 2023, 2024, and 2025. This plan outlines major construction projects that will potentially allow MCA to coordinate the installation of dark fiber or conduit during project construction. MaineDOT's Broadband Utility Coordinator also works per Federal Highway's new regulations on minimizing multiple excavations and updating utility accommodation policies. MCA recognizes, however, that new highway construction is rare in Maine and that conduit may not be the best solution in every situation. It is working closely with MaineDOT on its pole utilization strategy to maximize above-ground fiber and examine opportunities for fixed wireless deployment.

MCA is also working closely with the Maine Department of Economic and Community Development (DECD), as one of the bureaus of the department, particularly on our plan to conduct a more detailed **economic development analysis** with state and regional partners in regions after the completion of infrastructure projects to assess new opportunities for both traditional industries and new development given new connectivity infrastructure. MCA staff also attend regular meetings with DECD team members on development initiatives to understand how broadband is critical to support both individual economic development projects in Maine and the overall state strategy.

Community Anchor Institutions

The BEAD program allows for funding to connect Community Anchor Institutions (CAIs) with less than 1 Gbps connection and encourages the leverage of existing networks. MCA is reviewing existing data about CAIs via the last known available data set and will undertake a comprehensive inventory and analysis of CAIs as required during the Initial Proposal stage. This will include speed test analysis to determine service levels and analyzing the feasibility of leveraging those CAIs as a launching point for fixed wireless connectivity to serve proximate locations that are currently un- or underserved. Leveraging capacity and existing assets from the Maine Research and Education Network operated via Network Maine will be key to success. At this point, it is unclear how much, if any, of the eligible CAIs will be able to be served with BEAD dollars due to the estimated high cost of serving all of Maine's unserved and underserved locations.

Mapping & Data Analysis

There is no source of existing data showing hard assets such as state-owned structures and utility infrastructure, land, existing rights of way, conduits or dark fiber, or capital projects as suggested in BEAD guidance. MCA staff worked with various state agency officials to assemble such a data set; unfortunately, this was not possible. However, MCA has been working extensively with a new collaborative group, the State of Maine Interagency Broadband Working Group (IBWG), to understand what resources exist and could benefit continued broadband deployment efforts. The IBWG includes 20 state agencies and bureaus collaborating with MCA on sharing data, planning, and resources to integrate connectivity into state initiatives and infrastructure. Through these collaborative efforts, we have identified several key pieces of information and resources regarding high-value assets for broadband deployment. For example, the Maine Department of Transportation publishes its work plan projects in a format that can be layered with intended broadband project routes to assist in coordinated infrastructure planning.

Data consistency regarding state-owned assets such as land and right-of-way remains an ongoing challenge as data systems modernize and integrate across multiple agencies. MCA will continue to focus on creating data systems with targeted locations and refining these maps after completion of the state-led challenge process and before the selection of subgrantees so MCA and partners can analyze area state resources for possible co-deployment of broadband and or fixed wireless to serve these locations. For example, if MCA identifies unserved locations in a remote part of Maine, but the state has invested in infrastructure to support a state park, or a legacy industry such as forestry, there could be an opportunity to align infrastructure investments, which we will explore with the IBWG.

Broadband Deployment Funding

MCA's broadband deployment has primarily been supported through existing funding programs, including Connect the Ready, Reach Me, Jumpstart, etc. (see Table 1 of Section 3.1 Existing Programs). The deployment of MCA's capital resources is designed to reach the last mile in the most rural places, connect communities ready to scale their infrastructure, prepare communities for investment, ensure affordable options for everyone, and invest in partnerships to build a modern broadband infrastructure for Maine. Broadband deployment under BEAD will continue to leverage these partnerships. The further iteration of MCA's existing grant funding programs under new BEAD regulations will include a more complete integration of digital equity criteria, a critical next step in this next phase of grant programs.

Integrating these socioeconomic, racial, health disparity, and other digital equity data sets into the Connectivity Headquarters for Analysis Research and Transparency (CHART) as a central asset of the Five Year Action Plan to enable the prioritization of infrastructure deployment based upon digital equity or other priority lenses. **CHART** is a key part of MCA's public interface to help community planning efforts factor in a diverse data set to augment their planning processes.

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Workforce Development

The workforce necessary to deploy funding at this scale in Maine is a critical factor that MCA identified early in this process. MCA quickly engaged Camoin Associates and its project partner, Thomas P. Miller and Associates, to assess Maine's broadband workforce.

Jobs Impact of Broadband Investment

Impact	Investment Scenarios		
Type	$100 M	$350 M	$500 M
Direct	**269**	**942**	**1,345**
Indirect	167	587	839
Induced	267	935	1,336
TOTAL	703	2,464	3,520

The report determined which occupations will be most critical for deploying broadband across the state, gauged the scale of workforce shortages, and crafted strategies for how MCA should address employer needs and barriers experienced by potential workers, particularly in underserved populations. The analysis results determined that the state faces significant workforce gaps due to an increasingly tight labor market, with any level of investment likely to impede deployment. This workforce shortage is exacerbated by the early stages of developing formalized broadband training within the state.

Coordination, communication, and partnerships will be crucial for Maine to successfully meet the challenges and opportunities broadband development presents. Maine's existing workforce development system is a key asset, as it operates effectively across the economy but will require specialization and capacity to support broadband sector buildout. Full results of this analysis are included in Appendix C.

3.3.2 Broadband Adoption Assets

- **Digital equity/inclusion coalitions -** As part of the outreach and engagement process to create the Digital Equity Plan, MCA launched the Regional and Tribal Broadband Partners program to identify organizational partners in every state region to support community planning for infrastructure solutions and digital equity planning for each region and Tribe. Thanks to the work of these partners, there are now 13 distinct regional and tribal digital equity coalitions with 180 partners engaged so far. MCA has also convened more than 40 Digital Equity Taskforce partners in a statewide coalition. At both the regional and state level, the partners are organizations that represent, serve, or support the covered populations.

- **Percentage of residents within the State/Territory who have adopted broadband -** The 2021 U.S. Census Bureau American Community Survey 1-Year Estimate indicates that broadband internet subscriptions serve 89.1% of Maine households under Census definitions. The same data also reveals that 5.4% of Maine households have no computer.

- **Meaningful use -** To better understand the percentage of Maine people using high-speed internet access for meaningful use (referring to how individuals use digital literacy skills to enhance educational and employment opportunities), MCA and our partners conducted the Maine Broadband Survey as part of the outreach and engagement period in February to April 2023. This outreach and engagement also included focus groups with covered populations and community meetings in various communities around the state. Analysis of the outreach results found that "a shortfall of critical digital skills support is a major barrier to digital equity in Maine. Without these skills, residents cannot leverage the internet to further education or work goals."

3.3.3 Broadband Affordability Assets

The two most prevalent affordability programs for devices and internet access are the Lifeline and Affordable Connectivity Programs.

Lifeline: Lifeline is a monthly subsidy program for up to $9.25 for phone, internet, or bundled services. Lifeline is open to consumers who have household incomes that are 135% or less than the Federal Poverty Guidelines or if a household member participates in any of these programs: SNAP, Medicaid, Supplemental Security Income, Federal Public Housing Assistance, or the Veterans Pension and Survivors Benefit. For individuals living on tribal lands, additional benefit programs assist with eligibility. Households on tribal lands also have access to an expanded benefit, receiving a monthly discount of up to $34.25 and up to a $100 reduction in connection charges. Once qualified, Lifeline is accessed through phone or internet companies that offer Lifeline benefits. As of January 2023, approximately 20,200 out of 164,000 eligible Maine households were signed up for the Lifeline benefit. Read more about Lifeline.

Affordable Connectivity Program: The Affordable Connectivity Program (ACP) is administered by the Federal Communications Commission and provides financial assistance for households to access broadband internet. A secondary component is a one-time discount to purchase a desktop, laptop or tablet. Benefits are accessed through internet providers, and all Maine providers offer the Affordable Connectivity Program.

In the Spring of 2023, MCA launched the ACP4ME campaign, a statewide initiative to increase awareness and enrollment in the ACP. In partnership with EducationSuperHighway, a national non-profit working to close the broadband affordability gap, we are building a statewide coalition of local communities and trusted institutions to raise awareness of this critical program through earned and social media. In Maine, 238,710 households are eligible for the ACP, yet only about 88,672 (37% of those eligible) have enrolled. The national average is about 33%, and outreach and engagement efforts by MCA and partner organizations have improved enrollment in Maine since December 2022. Read more on ACP Enrollment Assistant.

Three potential local models to support affordability

1. The Town of Bremen, a small community in Lincoln County, has established a fund to support broadband subsidies for residents in need. Bremen is among the first towns in Maine to use town funds to implement a plan to support access for low-income residents to a fiber optic network serving the town. Bremen's Budget Committee and Select Board have approved a $25,000 budget to support low-income families. The National Digital Equity Center will implement the affordable broadband program on behalf of the town. Though the details are not yet finalized, the benefit would be prioritized for families with school-age children (5-18 yo) with incomes up to 50% of federal poverty guidelines to address the "homework gap." Covered populations and others would be considered case-by-case if the funding is available. The funds may be used to support installation and router costs, where the cost of service would be $0 after the $30 ACP benefit is applied.

2. The Passamaquoddy Nation at Indian Township also established an affordability fund for their fiber-to-the-premise build with Pioneer Broadband. The fund is being used to help support Tribal members who need assistance with broadband costs, specifically upfront installation costs.

3. Piscataquis County launched a program in 2022 that provides residents who do not currently have an internet connection reimbursement for 50% (up to $300) for the cost of hardware like routers and modems when they sign up for service. The program was recently extended for three more months, and the county set aside up to $150,000 of ARPA funds to support it.

3.3.4 Broadband Access Assets

Middle Mile

Maine has a limited open access middle mile network. The state's previous "Three Ring Binder" middle mile network was sold to a private provider, resulting in limited availability at a higher cost than was previously available. This change was part of the impetus for MCA's Middle Mile Initiative: Maine Online Optical Statewide Enabling Network (MOOSE Net). Maine's existing internet infrastructure is a patchwork of individual private networks, and the middle mile infrastructure supporting these networks was generally not created to support the goal of universal broadband access throughout the state.

MCA has joined key partners on the $53 million MOOSE Net project. This project includes $30 million in funding from NTIA's Enabling Middle Mile Broadband Infrastructure Program.
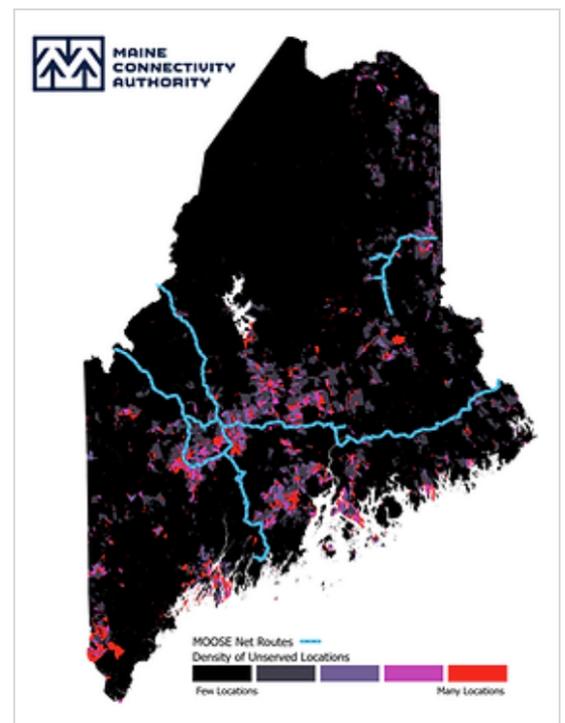
The business case analysis completed to prepare the MOOSE Net proposal identified over 1,100 miles of potential routes where Maine lacks any middle mile network. In June 2023, MCA received notice that the proposal was selected for funding, and MCA is now beginning to implement that project plan. The executive summary of the funded proposal is available in Appendix H.

When constructed, MOOSE Net will cover 131 communities with middle mile, representing the opportunity to serve 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. This will also significantly amplify the impact of Maine's BEAD funding allocation. More affordable middle mile access will translate to cost-effective last mile projects serving Maine's unserved and underserved locations. More information about MCA's middle mile initiatives can be found here.

Mobile & Wireless Connectivity

Mainers need better connectivity in all forms and access types. Access is a challenge whether addressing mobile broadband, public Wi-Fi and networks, or wired broadband. No comprehensive data sets exist regarding public Wi-Fi or access points, and MCA's only mobile data set is what exists on the Federal Communications Commission (FCC)'s National Broadband Map. MCA will layer this data to assess the potential for fixed wireless deployment in combination with service providers, particularly in remote, hard-to-serve areas where infrastructure deployment may be particularly challenging. MCA's mapping platform will be utilized to make data-driven decisions.

There is some interest in inventorying public Wi-Fi access points in Maine as an asset. Still, no such data set currently exists, so in further digital equity asset inventory development, MCA will continue to explore that opportunity and look at other publicly available or crowdsourced data.

Additionally, MCA is performing a detailed analysis of the location information provided by the FCC to identify groupings of locations for which a common connectivity solution exists.

- Groupings that include locations close to each other and/or known existing infrastructure will be targeted for interventions similar to our existing Last Mile programming, such as Connect The Ready and Reach Me Line Extensions. MCA will proactively identify proposed project areas and seek private and public partners to deploy greenfield networks or utilize and extend existing infrastructure.

- Groupings of locations that are extremely high cost for fiber builds due to low premises density, lack of middle mile infrastructure, or physical barriers to construction will be targeted with Fixed Wireless Access programming interventions. MCA will identify existing tower infrastructure, if present, and recruit wireless provider partners to model and deploy coverage in a project area. MCA will leverage middle mile investments to support tower backhaul if needed.

- Groupings and/or individual locations that are extremely remote, off-grid, or otherwise unable to be covered by terrestrial fixed wireless will be targeted for an alternative solution such as Low Earth Orbit satellite service.

Anticipated activities include a spatial analysis of the Broadband Data Collection Fabric to produce logical clusters, analysis of such clusters to determine applicable intervention, program design of specific interventions, partner recruitment to support interventions, continuing adjustments of modeling assumptions based on as-built conditions, including take rates, actual costs vs. budgets, and technology performance.

3.3.5 Digital Equity Assets

The first step toward understanding the state of digital equity in Maine has been to catalog and evaluate the place from which we are building. In late 2022, the Maine Connectivity Authority contracted with the University of Maine Center on Aging to research and create the first Digital Equity Asset Inventory for the State of Maine (see Appendix D).

The research team utilized three primary methods to identify digital equity and inclusion resources:

1. A review of online resources to identify information about assets;

2. Key informant interviews with individuals within organizations that have a major role in digital equity or are knowledgeable about the landscape of resources;

3. Surveys with large networks of organizations providing digital equity and inclusion resources, including adult education programs, libraries, and housing authorities.

Twenty-eight individuals participated in key informant interviews, and information was collected on 93 assets via the survey. The Maine Digital Equity Asset Inventory can be found on MCA's digital equity webpage.

In addition to the first draft of the asset inventory compiled by the University of Maine researchers, MCA tasked each of the 13 Regional and Tribal Broadband partners to identify additional assets in their regions through individual and organizational interviews conducted throughout the outreach and engagement period. The regional and tribal broadband partners identified over 30 other assets that need to be explored in greater detail and added to the next version of the asset inventory.

The Digital Equity Asset Inventory will remain an evolving collection of information. As part of the State's digital equity implementation plan, MCA will design and launch an online resource where both members of the public and digital navigators can find digital inclusion resources and submit information about new assets to add to the inventory. The outreach and engagement required to keep the asset inventory relevant will be a shared responsibility of the digital equity ecosystem in Maine and will be administered by MCA. The inventory will help grow and strengthen the ecosystem by nurturing partner relationships and spreading awareness about digital inclusion programs and resources.

The digital equity assets in the State of Maine are limited—often by resources and capacity—in size and scope. The assets provide modest digital inclusion support to the covered populations relative to the need. Because funding is limited, individuals and communities in different geographies may have vastly different levels of digital inclusion programming and available resources.

The elements of broadband adoption, affordability, access, and digital equity requested for this asset inventory section are found in the Maine Digital Equity Plan, [included in the Five Year Action Plan as Appendix D](#).

3.4 Needs and Gaps Assessment

Service Availability

Maine's unserved and underserved locations are scattered throughout the state. They are tucked along the pockets of our rocky coast, hidden down long dirt roads among potato fields in our northernmost county, Aroostook, and nestled in plain sight just outside our service center communities in central Maine. There is no "one size fits all" solution for broadband deployment to deliver service to these unserved locations.

According to the FCC Broadband Data Collection Fabric published in December 2022, Maine has 42,264 unserved locations, 50,289 underserved locations, and a total of 642,620 broadband serviceable locations. These locations can be visualized on MCA's mapping platform, demonstrating the needs and gaps in broadband service throughout the state. (https://www.maineconnectivity.org/).

Extremely High-Cost Locations

As MCA seeks to establish the extremely high cost per location threshold and design the state challenge process during the next phase of the BEAD planning process, one step will be to determine which unserved locations will potentially be connected by deploying alternative technologies such as fixed wireless. As part of our cost model analysis, MCA estimates these alternative technologies will be a significant component of being able to serve all of Maine's unserved locations with the allocated funding (plus match dollars). MCA has already been trialing several funding solutions that could help address these locations under BEAD, including MCA's [Jumpstart Connectivity Initiative](#) and the [Reach Me Line Extension](#) programs.

MCA is actively funding these programs and committed to iterating and refining the programming with feedback from stakeholders to develop the best solutions for high-cost areas that leverage existing infrastructure and resources wherever possible.

Community Anchor Institutions

BEAD allows for funding to connect Community Anchor Institutions (CAIs) with less than 1 Gbps connections and encourages eligible entities to leverage existing networks. MCA's first step is to understand the data regarding CAIs and their service needs fully. MCA will review CAIs and their connections with the last known available data set (which is quite out of date), update that data set, conduct speed test analysis to determine service levels to those CAIs and analyze the feasibility of leveraging those CAIs as a launching point for fixed wireless connectivity to serve any proximate locations that are unserved or underserved as part of our plan for universal service.

Affordability

The high cost of reliable internet is a significant barrier, and many are unaware of the Affordable Connectivity Program. In Maine, 47% of survey respondents say they have at least some difficulty paying their monthly internet bill. It's even more of a strain for many covered populations: 77% of low-income households have difficulty, and 64% of racial and ethnic minority respondents have at least some difficulty.

Almost half (47%) of respondents have at least some difficulty paying for their internet service.

How difficult, if at all, is it for you to fit your monthly internet bill into your household's budget?

Very difficult	372	11%
Somewhat difficult	1,167	36%
Not too difficult	1,119	35%
Not at all difficult	581	18%
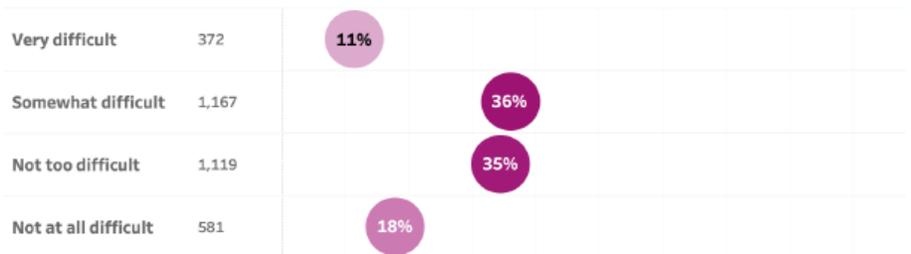
In focus groups and community meetings, we repeatedly heard about the frustration people experience in navigating their relationships with ISPs to get the service they want for a price they can afford. This includes not getting caught in high-cost "bundles," or contracts where prices increase, or fees are added unexpectedly. Forty-one percent of the survey respondents reported paying anywhere from $60-$90 per month, and 34% are paying more than $90. In addition to expensive monthly service, many survey respondents (40%) are dissatisfied with their internet because of the connection's speed, reliability, or quality. There is a general sense that those with internet access can't rely on it and take advantage of the benefits of being connected.

About 33% of eligible households in Maine are enrolled in the Affordable Connectivity Program, which means

there could be as many as 160,000 eligible households not receiving this benefit. Very few people know of the ACP benefit in the survey, focus groups, and community meetings. Those aware often report difficulty getting through the enrollment process, providing eligibility documentation, or receiving the full benefit of $75 in the case of many tribal members.

In areas where targeted enrollment outreach is happening through trusted organizations, the percentage of people who have applied is higher than the 11% overall noted in the survey– 42% of low-income survey respondents said they enrolled in the benefit, and 27% of racial and ethnic minority respondents reported enrollment. The FCC has funded four organizations in Maine to support outreach and enrollment for the program. Many other organizations that have trusted relationships with eligible individuals and households do not have the capacity to do this type of engagement.

Digital Equity

While MCA would like to use BEAD funding toward the many needs and gaps identified and cataloged in the Maine Digital Equity Plan (Appendix D), initial estimates do not indicate that the BEAD allocation will be enough to provide any significant funding for BEAD priority and secondary locations, plus workforce costs. We expect to use digital equity funding plus the new Digital Equity Fund outlined in the plan to accomplish digital equity goals and objectives. The major needs and gaps for this section regarding broadband adoption, affordability, access, and digital equity are included in the Maine Digital Equity Plan (Appendix D).

Workforce

MCA identified workforce needs as critical to the success of this initiative early in Maine's process through the development of the Maine Broadband Workforce Strategy. Completed for MCA by Camoin Associates in 2022 (Appendix B), the analysis showed that with minimal increased investment, Maine would have an average shortfall of 3,240 workers in these occupations across all industry sectors in the economy. With the growth in broadband activity, that gap increases to an annual average of 3,387 to 3,976 workers, depending on the level of investment.

This significant gap can inhibit the

Baseline Scenario Workforce Gaps

SOC	Top Broadband Occupation	2021 Jobs (1)	Labor Force Change (2)	-	Openings (3)	=	Gap	Average Annual Gap
			2022 - 2032 Projections					
43-4051	Customer Service Representatives	10,912	482		13,299		(12,817)	(1,282)
47-2061	Construction Laborers	6,521	326		6,795		(6,469)	(647)
15-1252	Software Developers	3,151	202		3,553		(3,351)	(335)
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	3,041	156		3,728		(3,572)	(357)
49-1011	First-Line Supervisors of Mechanics and Installers	2,473	121		2,262		(2,141)	(214)
13-1082	Project Management Specialists	2,180	116		1,867		(1,751)	(175)
49-9051	Electrical Power-Line Installers and Repairers	685	35		667		(632)	(63)
49-2022	Telecommunications Equipment Installers and Repairers, Except Line	537	26		623		(597)	(60)
49-9052	Telecommunications Line Installers and Repairers	379	19		440		(421)	(42)
49-9098	Helpers--Installation, Maintenance, and Repair Workers	313	16		421		(405)	(40)
17-2072	Electronics Engineers, Except Computer	189	10		153		(142)	(14)
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	84	4		104		(99)	(10)
TOTAL		**30,467**	**1,514**		**33,912**		**(32,397)**	**(3,240)**

plans to deploy broadband investment. Combined with the more recently released NTIA workforce analysis for Maine, it is clear that supporting the workforce pipeline is critical to BEAD success for Maine. MCA is working collaboratively with the workforce development system, including the Maine Department of Labor, CareerCenter, local workforce investment boards, education institutions, and other partners, to address this identified critical labor shortage. Failure to address the workforce shortage could limit the success of broadband deployment. For this reason, MCA anticipates using BEAD funding for workforce development strategies (as allowed in the BEAD regulations) during BEAD deployment.

Policy and Regulatory

During the Five-Year Action Plan process, MCA identified several legislative and regulatory barriers to accelerated infrastructure deployment. Frequently mentioned among these were the issues of the need for long-term affordability (systemic changes or permanent subsidy programs like the ACP or others), financing options for broadband projects (especially publicly owned models), pole attachment costs, complexity and data management, permitting, rights of way access, service standards and data sharing of planned ISP network builds.

Given the surge of regulatory requirements across multiple federal funding programs combined with integrating new data that will shape policy and practice, MCA's pragmatic insights through the design, development, and deployment of funding will be honed through the second half of 2023. Additional inputs to inform MCA's policy and regulatory priorities include an analysis by the Maine Broadband Coalition, the Pew Charitable Trusts, the National Governors Association, and the Schools, Health & Libraries Broadband (SHLB) Coalition, among others. The following emerging policy and regulatory priorities were identified during the public input process for further analysis:

Affordability Policy Recommendations

- Maine should continue to encourage the federal government to fund and strengthen the Affordable Connectivity Program (ACP) and consider a state-based affordability program to create stability and encourage more eligible Mainers to enroll.

- Maine could adopt a Subscriber Bill of Rights, which would guarantee certain conditions for Maine's broadband subscribers.

- Requiring long-term affordability conditions for grant recipients.

Digital Equity Policy Recommendations to Drive Adoption

- Maine needs an e-government and digital access strategy for all levels of the public sector.

- Campaign to improve performance of existing services - many internet subscribers could benefit from actions to improve existing service, particularly by upgrading outdated modems and routers, repositioning equipment in the home, and adding mesh network extenders.

- Establish a tax incentive program for organizations to donate used equipment.

- Establish fees for disposing and recycling hazardous e-waste, with exemptions for usable and viable donated equipment.

- Maine needs a state digital equity policy, including ongoing tech support.

- Internet safety is a major concern, and Maine could strengthen and widen privacy laws and fund training and promotion of internet safety.

Infrastructure Project Policy Recommendations

- Regional scale solutions are critical. Maine could significantly accelerate deployment by enabling multi-municipal partnerships attracting new investment and enabling network diversification.

- Expand programming to provide line extensions in unserved areas through targeted negotiations with ISPs and towns (building from MCA's Reach Me program).

- Plan, develop, and own a strategic expansion of open access middle mile infrastructure to ensure internet transport resilience, last mile service diversification, and alignment with economic development driver objectives.

- Utilize remaining American Rescue Plan Act funding to braid and integrate with BEAD funding through a common data-driven target analysis, with a universal service requirement but prioritization of unserved locations increasingly factoring in digital equity objectives. Connect The Ready Cohort 2, launched in the summer of 2023, will align with BEAD funding parameters and requirements.

- As middle mile funding drives planning and priorities, continued alignment with the Governor's Office of Policy Innovation and the Future, Department of Transportation, Department of Environmental Protection, Office of Information Technology, Department of Economic and Community Development, Maine State Library Network, University of Maine and others will be key to success.

- Identify how to leverage non-wired alternative technologies to benefit economic development and industry needs, expanded mobility connectivity and last mile solutions for extremely rural locations.

Policy Recommendations Relevant to Publicly Owned Infrastructure

- Policies, partnerships and strategies to improve access to capital for Broadband Utility Districts (BUDs)

- Consider capitalizing the Municipal Gigabit Broadband Access Fund through state-appropriated funds to leverage regional universal projects that meet and exceed Maine's broadband standard.

- Consider additional incentives for publicly-owned networks expanding for regional coverage of adjacent unserved areas to reinforce community-supported expansion and diversified service options in rural locations.

Policies to Address Barriers to Broadband Deployment

- Pole attachment processes (licensing, contracts, make ready, data sharing) will need modification to accommodate the surge of activity in the next few years. In 2023, MCA will support the Maine Public Utilities Commission (MPUC) in conducting a legislatively directed study to identify potential interventions and opportunities to improve the pole access and data-sharing processes.

- Maine may pursue policy reforms to incentivize providers and contractors to train more workers through a program like the Dirigo Investment Zone Initiative recently approved.

- Evaluate requirements for open access dark fiber after an exclusivity period for the co-funding partner of publicly-subsidized networks.

- Support federal legislation to mitigate income tax liability for recipients of federal funding.

4. Obstacles or Barriers

The following barriers and obstacles must be addressed to successfully deploy broadband funding and address digital equity across Maine. MCA has organized these barriers by the strategies that will be used to address particular obstacles and barriers. Please see the **Maine Digital Equity Plan** for a complete discussion of the digital equity obstacles and barriers that affect Maine, particularly covered populations.

Strategy 1 Prioritize funding to maximize impact, balancing urgency, universality, and equity	Baseline **data is being updated and refined regularly,** which impacts the scale of the problem and available resources and brings communication and process challenges to the forefront.
	Managing the **dynamic tension of designing solutions** for everyone while prioritizing those who are most disadvantaged requires careful consideration, tools, resources, and the capacity for complex yet transparent analysis.
Strategy 2 Proactively drive investments as a comprehensive portfolio	**Community broadband planning** in Maine has traditionally taken place at a municipal level. Still, efforts must be regionalized for deployment at this scale to happen cost-effectively and relatively rapidly.
	Increased collaboration is needed between **Internet Service Providers** (ISPs) and MCA to better understand where private investment will expand or upgrade infrastructure and where subsidy is required.
Strategy 3 Optimize Broadband Deployment	The **quality of internet connections** causes frustration for Mainers across the board, whether because of a slow connection, a lack of capacity to support all the devices and uses, or periodic outages.
	Access to capital at scale is limited for public and private partners; so far in Maine, deals have been small and outside investment limited.
	Financing for **public ownership** at a regional scale is critical, but support and financing for publicly owned efforts remain limited and complex to navigate.
	Access, data management, insurance, and regulations around **utility poles** require significant resources to navigate, requiring systemic intervention.
	More than 3,400 new **broadband workforce positions** are needed to address the surge of investment.

Strategy 4 Expand and Enhance the Foundation for Digital Equity	**Internet safety** is an urgent concern– Mainers do not know how to protect themselves online, and there are few digital safety and training resources. In our survey, 93% of Mainers are concerned or very concerned about internet safety, and protecting their personal data online is the skill in the survey that people had the least confidence in.
	A shortfall of critical **digital skills support** is a major barrier to allowing Mainers to leverage the internet to advance education and work goals or access other relevant resources online. There is widespread interest in and need for digital skill building, especially among older adults and other covered populations. There is a prevailing sense that classes are rarely tailored to specific covered populations or starting where they need to start.
	Access to devices and the technical support to operate them is an ongoing issue. People are using friends, family, or coworkers for technical support. There are insufficient trusted and accessible sources for technical support or awareness of existing supports. In our survey, just 5% went to a local institution for help, and more than a quarter simply gave up when they couldn't fix their device.
	Barriers are **exacerbated for covered populations**. For example, for people in rural communities, it is often a significant cost barrier to access home internet, with line extension quotes from internet providers of thousands of dollars. There are also typically fewer community anchor institutions nearby that offer support and resources, and these individuals must travel greater distances for support.
Strategy 5 Focus on Affordability	**Cost is a significant barrier**. People have difficulty navigating options and prices and getting what they need or want for what they consider is a good price. Almost half of the survey respondents (47%) have at least some difficulty paying for service. It was also noted by key informants who work with covered populations during the asset inventory interviews that there is evidence that people from these populations experience poverty at a higher rate, thus exacerbating digital equity issues.
	Many Mainers, especially those who could benefit from the programs, **are unaware of initiatives** like the Affordable Connectivity Program and the potential savings they could provide.

Strategy 6 Raise Awareness and Strengthen Feedback Loops	Most people see the benefit of **government processes and resources being offered online**. Still, many people struggle to use them because of a lack of internet access at home or accessibility of the sites, forms, or processes. Many sites are not mobile-friendly, and many users depend solely on their phones to access the internet.
	Launch a **Maine Digital Broadband Career Hub** to be the go-to place for sharing industry information about careers in broadband and education/training opportunities.
	No central agency or organization has collaboratively **organized and deployed statewide educational campaigns** promoting workforce and training opportunities, internet safety, device refurbishment, and general awareness of broadband opportunities.

5. Implementation Plan

5.1 Stakeholder Engagement Process

The Maine Connectivity Authority (MCA) conducted significant public and stakeholder engagement while developing the Broadband Action Plan, the combined approach for developing the Five-Year Action Plan and the Digital Equity Plan.

Engagement activities included:

- Formation and monthly engagement with six stakeholder groups (see below), including 117 partners and individuals
- Three Tribal Consultations with tribal leadership of the Mi'kmaq Nation, Passamaquoddy Tribe at Sipayik, and the Passamaquoddy Tribe at Indian Township
- 3,288 responses to the Maine Broadband Survey (12 language translations created)
- 16 Community Meetings in person (250 participants)
- 13 Focus Groups with covered populations (116 participants)
- Regional and tribal coalition building and engagement, resulting in 180 digital equity coalition partners and 651 interviews with individuals with lived experience of the digital divide (covered populations) and organizational partners which support and represent the covered populations
- (First ever) Digital Equity Workshop facilitated by National Digital Inclusion Alliance (NDIA) and MCA (100 participants)
- Interviews with ten Internet Service Providers (ISPs) and an ISP roundtable with 17 participants
- Stakeholder presentations and meetings with myriad groups, including Maine Municipal Association, Maine State Chamber of Commerce, etc.
- Workforce process engagement was particularly strong and was factored into the process through the inclusion of the Maine Broadband Workforce Strategy
- Dedicated email and voicemail boxes were established to collect direct feedback and answer questions
- Multiple open office hours sessions held online throughout the engagement period
- Radio, social media, and earned and print media to share the process and invite feedback and survey responses
- Reflections & Revisions: extensive 30-day public comment period involving numerous presentations and community and partner engagement sessions to invite and solicit feedback on the draft plan

The full local engagement tracker can be found in Appendix F.

Engagement Partners

A number of important collaborators engaged in the development of the plan, including members of the Digital Equity Taskforce, the Regional and Tribal Broadband Partners (RTBP), as well as local coalition members who were convened within each region by those regional partners. Additionally, MCA has worked closely with state agencies and bureau collaborators through the Interagency Broadband Working Group (IBWG) and the Workforce Advisory Committee.

Digital Equity Task Force

Key members of the Digital Equity Taskforce include the executive director of the National Digital Equity Center (who served as the Chair), the director of the Maine Adult Education program, and staff from the Maine Community College System, Maine Immigrant Rights Coalition, and Give IT Get IT. Membership also included representatives from several state agencies: Department of Labor, Department of Health & Human Services, Department of Economic and Community Development, Department of Education, Maine Housing, Bureau of Veterans Services, and the Maine State Library. Also represented are a statewide food bank, local housing authority, tribal members and organizations, a community action agency, organizations working with and advocating for older adults, the University of Maine Center on Aging, and the Northeast Telehealth Resource Center. The group was formed to provide insight, advise MCA regarding the barriers that covered populations face and potential solutions, and help facilitate connections directly with those individuals and communities to inform the plan's development. The Taskforce has been meeting monthly since first convening in June 2022.

Regional and Tribal Broadband Partners

MCA funds the Regional and Tribal Broadband Partners to support community-driven broadband solutions and to facilitate the digital equity coalition building and plan development in each region. These partners are economic development and planning agencies, nonprofit organizations, and councils of governments (COGs), and a native community development financial institution (CDFI) provides support and capacity for the tribal communities. The Regional and Tribal partners have met monthly throughout the development of this plan, and the regional partners also had weekly open office hours with MCA staff and contractors.

Throughout the implementation of the Five Year Action Plan, MCA will continue to collaborate extensively by maintaining partnerships with these key collaborators, building relationships with individuals and communities who are most impacted by the digital divide, and creating partnerships to advance our work in new areas such as internet safety. MCA will need to continue to leverage partnerships developed during the Digital Equity Plan development outreach and engagement process, particularly within our strategies to tackle affordability, reach more places and people with digital inclusion programming, and launch statewide education campaigns to bring partners together on issues like device refurbishment, internet safety, and telehealth best practices.

Moving forward, we envision engaging the partner groups below in the following ways:

- **Digital Equity Taskforce** *(40 partners)*
  The Taskforce members will continue to serve as important advisors to ensure that covered populations are served through the Maine Digital Equity Plan implementation. Many will also be directly engaged as implementation partners for specific strategies outlined in this plan. Some Taskforce members may also serve as grant decision-making or advisory body for Connectivity Hubs or other digital equity funding programs. These partners are important education partners and awareness builders about digital equity and digital inclusion programs and resources.

- **Regional and Tribal Broadband Partners** *(13 statewide partners, 180 regional coalition members)*
  These organizations are likely implementation partners for regional and tribal broadband planning, implementation, and digital equity plans. They will also be important convenors for partners at the local and regional levels.

- **Tribal Leadership** *(5 tribes)*
  MCA expects to partner with Tribal leaders and organizations on implementation strategies for digital equity in Tribal communities and serving Tribal members throughout the state.

- **Broadband Working Group** *(17 state agencies/bureaus)*
  Many members of the Working Group may be implementation partners for infrastructure planning, ACP enrollment and other affordability strategies, digital skill building, affordable device access, inclusive government resources, and internet safety. State agencies are education and awareness builders, as well as partners with direct relationships with covered populations through their existing roles and programs.

- **Workforce Advisory Committee** *(20 partners)*
  This Committee is working with MCA's Workforce Development Manager to create and support education and training opportunities to solve the broadband workforce gap. Many will serve as advisors to MCA and practitioners to ensure underserved populations are engaged in broadband workforce strategies.

- **Broadband Infrastructure Capital Markets Taskforce** *(27 partners)*
  Though this Taskforce is devoted primarily to helping to solve gaps in funding for broadband infrastructure, they may also be engaged to support or advise on fundraising strategies for the Digital Equity Fund and other creative financing that may support digital equity.

- **Maine Broadband Coalition Policy Committee**
  This subset of the Maine Broadband Coalition will continue to generate and evaluate policy ideas and bring them to MCA for discussion and consideration.

We plan to consistently engage with these partners to build relationships with covered populations and the organizations that serve and represent them. Some proposed outreach and engagement methods include:

- **Events:** MCA will continue to hold a statewide Digital Equity Workshop annually, as well as other digital equity-focused events, collaboration around the Maine Broadband Summit (an annual event hosted by Maine Broadband Coalition), and smaller regional and local events focusing on a range of technical, organizational and topic-specific issues. The annual workshop will serve as a regular event to help update partners on progress toward the strategies and goals outlined in this plan.

- **Community Conversations:** Community and partner meetings coordinated by MCA staff in partnership with various stakeholders and new partners as they are identified. This outreach will allow MCA to understand better the needs and opportunities in particular communities and populations and identify new strategies for implementation.

- **Digital Equity Asset Inventory:** Building and maintaining the asset inventory as an online resource for partners and the public will be a field-building strategy. We envision developing and using this tool to keep organizations connected with others in the digital equity ecosystem, provide a resource for digital navigators, and a place for the public to find information and support.

- **Tracking Impact:** MCA will conduct ongoing evaluation and progress monitoring on digital equity metrics, conducting additional surveys and focus groups in 2027 and 2030. Regular progress monitoring will occur annually as programs are implemented and reporting is undertaken. MCA will use our website, newsletter, and partner meetings to communicate progress toward our goals.

- **General Public Input:** MCA will maintain our practice of holding open office hours and regular public meetings of our board, both providing ongoing opportunities for public input. We will look for established events throughout the state to partner and engage with as attendees, speakers, and sponsors for community engagement. Regional and tribal broadband partners will also be part of our strategy for more profound local engagement opportunities. Opportunities will be provided for individuals and communities to offer feedback through regular surveys and feedback sessions. MCA will also continue to work closely with our partners at the Maine Broadband Coalition to provide regular updates and solicit input through their weekly "Let's Talk Broadband" open Zoom sessions.

- **Exploring New Partnerships:** MCA must also cultivate or strengthen new partnerships to accomplish our goals, specifically with law enforcement, media partners, labor, and workforce organizations. Through an internal legislative team, MCA is actively working to align strategic goals and objectives with the State Legislature through regular communication with legislative staff and policymakers to facilitate collaboration on various policy issues. Engagement with the State Broadband Caucus and issue-specific discussions through the Interagency Broadband Working Group help MCA be as proactive in identifying critical policy interventions as possible.

5.2 Priorities

Table 6: Priorities for Broadband Deployment and Digital Inclusion

Principle	Description
Expand a data-driven, transparent approach.	Utilize a framework to ensure that MCA makes investments with a digital equity lens and that everyone can interact with the data used to make those decisions.
Grow and strengthen the ecosystem.	Nurture relationships, shared learning, and collaboration; increase capacity; and provide the tools and structures partners need to help people get connected.
Leverage networks of opportunity.	5%-7% of Maine serviceable locations are without a connection, as defined by the FCC. We can't afford to have anyone in the "digital dark."
Get creative.	Support and learn from various approaches from place to place and population to population, recognizing that no one has all the answers, and every place and community is different.
Leverage existing assets.	MCA analysis shows that BEAD and Digital Equity allocations will not be enough to complete this work, so it will be crucial to leverage these federal investments with other capital sources.
Remove systemic barriers.	Maximize the impact of all investments and deployment.
Shout it from the rooftops.	Tell a broad range of stories in various mediums to illustrate the impact of the digital divide on Maine and the positive impact of achieving our goals.

5.4 Key Execution Strategies

The following execution strategies, with the activities listed in section 5.3, articulate how the Maine Connectivity Authority (MCA) plans to meet its broadband deployment and digital equity goals. The strategies to advance Maine's broadband and digital equity goals will contribute to larger state goals to build a thriving economy that benefits individuals and industries, increase educational attainment, support age-friendly communities, and improve health outcomes through telehealth. The objectives below represent a refinement of MCA's existing strategic goals and the newly articulated digital equity goals gleaned from the process undertaken to develop this Five Year Action Plan for the State of Maine.

Strategy 1. Prioritize funding to maximize impact, balancing urgency, universality, and equity

This dynamic balance will serve as the "North Star" for Maine's Broadband Action Plan as we seek to maximize funds to optimize the impact of investments. We will focus on balancing the tension of designing solutions for everyone while prioritizing the most disadvantaged.

- Center digital equity in infrastructure projects and other programs to prioritize investment impact through an enhanced broadband mapping and analysis platform known as the **Connectivity Headquarters for Analysis Research and Transparency** (CHART), including a multi-criteria decision-making framework and a progress monitoring dashboard.

- BEAD funding will be utilized and distributed by MCA to first deploy infrastructure to the approximately **42,000 unserved locations** across the state, addressing affordable access for those with no connection. The next priority for these funds will be the **52,000 locations considered underserved** by NTIA.

- Lead the State of Maine's *Interagency Broadband Working Group* to **coordinate broadband implementation with state plans/strategies,** including capital planning, climate resilience, affordable housing, economic development, transportation, workforce, education, etc.

- Establish a **Connectivity Hubs Program** in 2024-2026 to support education, workforce, and telehealth programming and public access to the internet, devices, and digital skills at community anchor institutions identified for maximum potential impact.

Strategy 2. Proactively drive investments as a comprehensive portfolio

Develop and implement a revamped deployment system to enable rolling funding applications and a managed flow of project development and technical assistance to allow for braided funding sources and an increased alignment of resources.

- The **Connectivity Headquarters for Analysis Research and Transparency (CHART)** will serve as a decision-making framework for how expanded criteria inform funding, priority areas, and partnerships, such as looking at areas with high percentages of covered populations, homes without a device, or layering in other digital equity factors such as income, educational attainment, and/or gaps in programs and resources identified in the digital equity asset inventory as part of the evaluation for infrastructure investments.

- Establish a robust **grant administration process** to help inform resource allocation across all programs and opportunities

- Build on Maine's history of **community-supported broadband solutions** using the **CHART** to provide **transparent data-driven decisions and prioritization** and technical assistance to communities so that they can pursue community broadband planning at the local or regional level.

- Facilitate **ongoing dialogue and engagement with Internet Service Providers** to assess and align opportunities for deployment to complement and maximize their private investment.

- Execute **existing infrastructure programs such as Connect the Ready, Reach Me, and Jumpstart** to enable diverse technologies and models to increase competition and options that lower costs for the projects and consumers.

- Establish a **resource bank** for technical assistance and shared services, including general technical assistance, data analysis, network design, legal and financial consulting, and grant procurement.

Strategy 3. Optimize Broadband Deployment

Decrease barriers to delivering broadband at scale and speed, braiding funding and leveraging resources. By identifying data and policy challenges to address these barriers, MCA can improve efficiency and reduce costs.

- Unlock access to **complementary capital**, financing solutions, and other resources to ensure the opportunity for a diverse and healthy ecosystem and various project ownership models.

- Support **public ownership models**, including for municipal, regional, and broadband utility districts, enabling diversification of ownership structures in Maine.

- Coordinate a multi-pronged approach to address structural, data, and policy challenges to the **utility pole process** to improve efficiency and reduce costs.

- Enable **workforce pathways** for educational, training, and employment opportunities to ensure Maine has the human capital needed to support this unprecedented influx of funding. Promote broadband career awareness & exploration by creating a Maine Broadband Career Hub and leveraging partnerships to create a talent pipeline.

- Implement additional critical **middle mile investments** to create much-needed backhaul infrastructure and improve access to affordable last mile.

Strategy 4. Expand and Enhance the Foundation for Digital Equity

Ensure that all Mainers, especially the most disadvantaged, have access to and can use information and communications technologies by sustaining and growing that digital equity foundation.

- **Formalize and ensure the continuity of the digital equity infrastructure** in Maine by more than doubling NTIA's Digital Equity investment by **launching a $15 million Digital Equity Fund**.

- Transform the **Digital Equity Asset Inventory** into an interactive online resource to provide information about digital inclusion programs and resources.

- Produce **digital equity-focused events** like an annual Digital Equity Workshop to drive collaboration, support shared learning, monitor progress, and communicate impact.

- Act as a **partner and convenor**, providing structure to bring together the Digital Equity Taskforce, Regional and Tribal Broadband Partners, Interagency Broadband Working Group, and others.

- Partner with the National Digital Equity Center (NDEC) to support a **statewide cohort of digital navigators** across organizations and agencies, hosting a central digital navigator training and sharing information and best practices.

- Support a **Tribal Broadband Initiative** to support connectivity and digital equity for Maine Tribes.

Strategy 5. Focus on Affordability

Improve the affordability of internet service so the high cost of reliable internet is no longer a significant barrier, ensuring that more Mainers are unaware of the available support through initiatives like the Affordable Connectivity Program.

- Lead and expand the **ACP4ME Campaign**, which provides support statewide with materials and training for partners to conduct outreach and enrollment activities.

- Engage with our partners to **explore best practices and other policy solutions, programs, and pilots** that could provide support if the ACP is not funded beyond 2024.

- Work with the affordable housing community to research, launch, and fund an **Affordable Housing Connectivity Program,** ensuring that the thousands of people living in affordable housing units in Maine have affordable access and the support they need to fully connect, including apartment Wi-Fi, digital skill training, affordable devices and technical support, and internet safety education.

- Identify and incentivize options for **multiple services strategies for extremely high-cost unserved locations** and underserved locations to increase competitive markets where possible.

Strategy 6. Raise Awareness and Strengthen Feedback Loops

Drive demand for services by understanding how people need and want to use the internet. MCA will collaborate with partners to design and launch statewide educational campaigns promoting workforce and training opportunities, internet safety, device refurbishment, and general awareness.

- Launch a **Maine Digital Broadband Career Hub** as the go-to place for sharing industry information about careers in broadband and education/training opportunities aligned with other Infrastructure career opportunities

- Regular **progress monitoring and data sharing** will increase transparency and support communication of our collective progress.

- Launch an **Internet Safety for ME Campaign**, creating various tools to be employed by trusted partners and leveraging media and law enforcement engagement.

- Launch an **Affordable Devices for ME Campaign** encouraging and enabling device donation for refurbishment and redistribution to covered populations.

- Identify and create a series of video and photographic **Digital Equity Stories** illustrating the impact of the digital divide, examples of digital inclusion programs, and the impact of digital equity on people's lives and communities.

Decision-Making Framework & Toolkit - CHART

As we prioritize funding to maximize impact, MCA must balance the dynamic tensions of urgency, universality, and equity. A central component of MCA's strategy for success, as identified in Execution Strategies 1 and 2 above, is the expanded criteria for decision-making through the **CHART** - **Connectivity Headquarters for Analysis Research and Transparency** - our central repository for data, analysis, and decision-making tools to assist MCA and other stakeholders in understanding the available data and competing resource needs facing our state.

CHART has been established to integrate socio-economic, racial, and health disparity datasets that will be kept up-to-date and relevant. CHART will be operationalized to guide infrastructure and digital equity decisions regarding investments, partnerships, and program priorities, with a tool that can help prioritize infrastructure deployment based on different population, demographic, and other geospatial datasets. MCA will regularly use CHART and its various tools during processes ranging from program design to evaluation. A public CHART interface will help community planning efforts factor in a diverse data set to augment their planning processes and will provide increased clarity and transparency to MCA's decision-making processes.

The outcomes of decisions supported by data from CHART should support progress on accessibility, affordability, and adoption by helping us to maximize impact and prioritize resources. CHART includes myriad criteria related to Maine's broadband goals and will guide how the related data sets play a role in each decision-making moment. Practical applications of CHART may include developing the objectives in designing programs, geospatial analysis and modeling, and developing evaluation formulas for competitive programs.

From the activities specified above and exploring alternative use cases, MCA is beginning to select the data sets and criteria essential to CHART. Once the variables and data sources are determined, a prototype tool will be developed with the ability to adapt to various decision-making scenarios. This will be complemented with a toolkit of mapping and analysis resources that will provide both internal and external support to the MCA team, program applicants, and other partners.

5.3 Planned Activities

To accomplish the execution strategies listed in section 5.4, the Maine Connectivity Authority (MCA) plans to conduct the following activities. The expected funding sources are listed in parentheses at the end of each activity.

Strategy 1. Prioritize funding to maximize impact, balancing urgency, universality, and equity

- MCA will fund a **Connectivity Hubs program** in 2024-2026 to support education, workforce, and telehealth programming and public access to the internet, devices, and digital skills at community

anchor institutions identified for maximum potential impact. This program will prioritize underserved geographic areas, covered populations, and other vulnerable individuals and communities with investments in broadband infrastructure, facility improvements, and devices. We are also exploring mobile connectivity hubs and digital equity buses to reach more remote locations. *(CPF funding)*

- Identify and deploy **alternative strategies for extremely high-cost unserved locations** and underserved locations. *(BEAD funding)*

- With MCA staff leadership, the Interagency Broadband Working Group (IBWG) will lead the **state agency team to coordinate broadband implementation** with state plans/strategies, including capital planning, climate resilience, affordable housing, economic development, transportation, workforce, education, etc. *(BEAD funding)*

Strategy 2. Proactively drive investments as a comprehensive portfolio

- The Maine Connectivity Authority (MCA) is working to apply digital equity prioritization to infrastructure projects and other programs to triage investment first to where it makes the most significant impact. Adding various priority data layers to the **Connectivity Headquarters for Analysis Research and Transparency** (CHART) will produce the best results from our combined BEAD and Digital Equity planning and investment process. *(BEAD funding, MCA existing funding)*

- Invite proposals on a **rolling basis for the leveraged use of public assets.** By bundling assets and funding, MCA can combine "un-connected," "unserved," and "underserved" locations to create opportunities for public/private partnerships and invite proposals for these opportunities from market participants, perhaps enticing new market entrants to the area, increasing competition and creating more desirable pricing for construction and end users. *(BEAD funding, MCA existing funding)*

- Establish a robust **grant administration process** to help inform resource allocation across all programs and opportunities. A revamped Grant Administration manual and team will serve as a core aspect of MCA's operational capacity to more efficiently and effectively manage a diverse portfolio of projects holistically and proactively.

- Building on Maine's history of **community-supported broadband**, MCA will use its mapping platform to provide transparent data, prioritization, and technical assistance to communities to pursue community broadband planning at the local or regional level. *(BEAD funding)*

- MCA will continue to **refine existing infrastructure programs such as Connect the Ready, Reach Me, and Jumpstart** to: *(BEAD, DE, and existing MCF funding)*
  - Enable a diversity of technologies and models to increase competition and lower costs
  - Include requirements for funded infrastructure projects such as low-cost options, middle-income options, proactive consumer outreach to share digital inclusion resources leveraging the digital equity asset inventory and regional and tribal partnerships

- Add direct mail and other outreach strategies to households that will be served by infrastructure projects to connect them with digital inclusion supports. *(DE funding)*

- Facilitate **shared technical and professional services** for industry and community partners to increase capacity and leverage MCA purchasing power. *(BEAD, CPF, DE funding)*

- Establish a **resource bank** for technical assistance and shared services *(BEAD, CPF, and MCA existing funding)*
  - Services include general technical assistance (data analysis, network design, legal and financial consulting, grant procurement and management),
  - Community of Practice to engage and equip local partners and support technical assistance, and
  - A network of Connectivity Boosters effort via the Maine Broadband Coalition (MBC).

- Establish, maintain, and communicate **verification and audit** expectations and results. *(BEAD funding)*

- Facilitate **ongoing dialogue and engagement with Internet Service Providers** to assess and align opportunities for deployment to complement and maximize their private investment. *(BEAD funding)*

Strategy 3. Optimize Broadband Deployment

- Develop and deploy **financing solutions to extend resources** and support additional investment
  - Broadband Infrastructure Capital Markets Taskforce is making recommendations regarding strategic financing opportunities and funding sources that will inform MCA and partner actions for capital markets-related items such as required leverage for grant funding, Community Reinvestment Act participation by Maine banks, bond funding, etc. *(MCA existing funding and additional funding sources TBD)*

- Conduct a **capital continuum analysis** of complementary sources of subsidized and unsubsidized dollars that can invest alongside MCA capital in last mile infrastructure projects. *(BEAD funding, existing MCA funding)*

- **Financing for public ownership models** - municipal, county, broadband utility districts, lease to own - relieving public ownership constraints is critical to Maine's diversification of ownership structures. *(BEAD funding, existing MCA funding)*

- Targeted **economic development analysis** with state and regional partners in regions after completion of infrastructure projects to assess new opportunities for both traditional industries and new development given new connectivity infrastructure. *(Existing MCA funding)*

- Evaluate the **Maine Policy Atmosphere, Challenges & Recommendations** document prepared by the Maine Broadband Coalition to consider for future policy actions and activities and prepare legislative action items for advocacy. *(Existing MCA funding)*

- Promote **broadband career awareness** & exploration. *(BEAD funding)*
  - Create a Maine Broadband Career Hub
  - Increase in-house workforce capacity at MCA

- Provide job matching services

- Coordinate **training and career pathways** that incorporate into various levels of education. *(BEAD funding)*
  - Incorporate broadband modules into existing K-12, CTE, higher education, and vocational curriculum, offer training reimbursement, ensure curricula is industry-informed, ensure stackable credentials and prior credit for learning, create a training program directory, and create sample education-to-career pathways.

- Leverage partnerships to **create a talent pipeline,** particularly for marginalized communities. *(BEAD funding)*
  - Outreach to BIPOC and immigrant communities, individuals with disabilities, recovery and reentry communities, military and veteran networks, and women - all of whom have been underrepresented in the broadband workforce.
  - Provide HR resources and support, prescreen applicants, and provide soft skills training as preparation.

- Support **essential middle mile investments.** MCA has begun work on Maine Online Optical Statewide Enabling Network (MOOSE Net) in partnership with Network Maine and other partners to provide an essential backbone network to facilitate affordable broadband access to thousands of households, businesses, and institutions along those routes. MCA is also planning a deployment of Capital Projects Fund (CPF) funding directly for middle mile strategic priorities at a regional scale. *(NTIA Enabling Middle Mile funding secured, CPF funding, plus investment capital)*

- Support the development of **internet exchange points and edge network colocation facilities** in the state to encourage enabling infrastructure. *(existing MCA funding)*

- Coordinate a multi-pronged approach to address structural, data, and policy challenges to the **utility pole process** to improve efficiency and reduce costs. *(ARPA, existing MCA funding)*

- Continue refining Broadband Infrastructure Capital Markets Taskforce recommendations and deploy strategies to extend MCA's financial resources and leverage public & private sector capital to support broadband investment. *(BEAD funding)*

Strategy 4. Expand and Enhance the Foundation for Digital Equity

- **Formalize and ensure the continuity of the foundation supporting digital equity** in Maine *(DE funding)*
  - MCA will more than double the National Telecommunications and Information Administration (NTIA)'s Digital Equity investment in Maine by **launching a $15M Digital Equity Fund** to support the strategies outlined in the Maine Digital Equity Plan.
  - As part of our digital equity planning process, MCA hired the State's first **Digital Equity Manager,** who will work directly with partners and help lead the implementation of digital equity programs outlined in the plan.
  - The **Digital Equity Asset Inventory** will become an interactive online resource to provide

information about digital inclusion programs and resources for members of the public, digital navigators, and organizational partners.

- Transform the **Digital Equity Asset Inventory** into an interactive online resource to provide information about digital inclusion programs and resources. *(DE, other funding TBD)*

- **Digital equity-focused events** such as an annual Digital Equity Workshop will be important gatherings to drive collaboration, support shared learning, monitor progress, and communicate impact. MCA will organize events regularly and sponsor and participate in events hosted by other partners. *(DE funding)*

- MCA will continue to act as a **partner and coalition convenor**, providing structure to bring together the Digital Equity Taskforce, Regional and Tribal Broadband Partners, Interagency Broadband Working Group and others. This convening role will grow with the emergence of our work in new spaces such as internet safety and affordable housing connectivity. *(BEAD, DE funding)*

- MCA and the National Digital Equity Center (NDEC) will partner to support a **statewide cohort of digital navigators** across organizations and agencies, hosting a central digital navigator training and sharing information and best practices, including leveraging and building the Digital Equity Asset Inventory. *(DE funding)*

- MCA will support a **Tribal Broadband Initiative** to support connectivity and digital equity for the Tribes in Maine. We will seek to solidify relationships with the Tribal Nations through annual consultations with tribal leaders, helping to support tribal capacity for broadband and digital equity and working to complement tribal funding sources with state funding where gaps are identified. *(DE, other funding TBD)*

- Provide support to **Maine Telecommunications Relay Services (TRS)** to enable individuals with disabilities that require assistive technology to transition from analog to digital by identifying individual locations that need access or providing the ACP or other support to those individuals. MCA is actively supporting TRS by filling a named role on the Telecommunications Relay Services Council to ensure that the deaf, late-deafened, hard of hearing and speech-impaired communities can fully access and participate in society as technology supports change. *(DE funding)*

- MCA will work to leverage **211 Maine** and **Bendable Maine** as broadband and digital equity resources, integrating the Digital Equity Asset Inventory and other MCA and partner programs supporting connectivity to ensure that Mainers can find what they need to support adoption. *(DE funding)*

- MCA will work with the Telehealth and Telemonitoring Advisory Group and other telehealth partners to support **telehealth education, best practices, and models** to decrease barriers for covered populations. This will focus on serving tribal members, older adults, veterans and individuals in remote and rural communities. *(DE funding)*

Strategy 5. Focus on Affordability

- MCA will continue to lead and expand the **ACP4ME Campaign**, which provides support statewide with

materials, training for partners to conduct outreach and enrollment activities, and tracking of progress toward our goal of doubling the number of eligible households (238,710) enrolling in the Affordable Connectivity Program (ACP) from 27% to 54% or about 130,000. The campaign will be expanded pending funding for the ACP beyond 2024 with public service announcements and media strategy, events, and collaboration with state agency partners to identify ways to integrate and align program enrollment with other programs already serving eligible households. *(BEAD and DE funding)*

- MCA and its partners will also engage with our partners to **explore best practices and other policy solutions, programs, and pilots** that could provide support if the ACP is not funded beyond 2024. *(DE funding)*
  - Research and draft a state-level ACP-alternative solution and middle-class affordability program.
  - Profile and share best practices from existing local affordability solutions such as Bremen, Indian Township, and Piscataquis County.
  - Engage collaborators and the legislature to explore other policy interventions, such as adapting the General Assistance program to allow communities to provide broadband subsidies and other support for housing and utilities.

- MCA will work with the affordable housing community to research, launch, and fund an **Affordable Housing Connectivity Program.** One strategy to improve affordability is to ensure that the thousands of people living in affordable housing units in Maine have affordable access and the support they need to fully connect, including apartment Wi-Fi strategies, digital skills training, affordable devices and technical support, and internet safety education. *(DE funding, other funding TBD)*

- Identify and incentivize options for **multiple services strategies for extremely high-cost unserved locations** and underserved locations to increase competitive markets where possible. *(BEAD, ARPA funding)*

Strategy 6. Raise Awareness and Strengthen Feedback Loops

- Launch a **Maine Digital Broadband Career Hub** as the go-to place for sharing industry information about careers in broadband and education/training opportunities. *(BEAD funding)*

- **Ongoing measurement and progress monitoring** toward our goals by MCA will be a critical building block to ensure all partners remain aligned and program adjustments are made throughout the implementation process. *(BEAD, DE funding)*

- MCA will launch an **Internet Safety for ME Campaign**, creating various tools to be employed by trusted partners and leveraging media and law enforcement engagement. The campaign will include a monthly news series on what consumers should watch out for, tips and tools to protect themselves online, and support for partnerships between law enforcement and digital equity partners. This could include, for example, highlighting and replicating the Bath Housing Authority partnership with local police for on-site internet safety education or a regular internet safety series offered by libraries throughout the state. *(DE funding)*

- MCA will work with partners to launch an **Affordable Devices for ME Campaign** encouraging and enabling device donation for refurbishment and redistribution to covered populations. This campaign will research formal and informal policies by government agencies, institutions and private sector partners that may be barriers to donation. We will help build capacity with Give IT. Get IT. and others. Further, the campaign will leverage partnerships with the state and regional chambers of commerce, institutions, media partners and state agencies to encourage and track device donations toward our goal of 25,000 donations. *(DE funding)*

- **Digital Equity Story series:** MCA will work with Regional and Tribal Broadband Partners, Digital Equity Taskforce members, core digital equity partners and networks of opportunity to identify a series of stories for a video and photographic series illustrating the impact of the digital divide, examples of digital inclusion programs, and the impact of digital equity on people's lives and communities. *(DE funding)*

5.5 Estimated Timeline for Universal Service

Year / Stage	Activities
2024 Infrastructure Funding Program Iteration	- Identify methodology for selecting extremely high-cost unserved and underserved locations - MCA's mapping platform with priority lenses applied to MCA funding programs for program iteration and design - Apply for state digital equity capacity funds - Launch digital equity asset inventory online platform - Fund regional & tribal digital inclusion plans - year one - Design & launch connectivity hubs - round 1 - Host second annual Digital Equity Workshop - Digital navigator cohort convened & statewide training - Convene internet safety partners - Convene networks of opportunity for covered populations - Design digital equity fund priorities and structure - State agency team coordination on broadband implementation - Outreach and planning for community-driven broadband solutions - Mid-2024 launch revised infrastructure funding programs with rolling deadlines - MCA programs improved using mapping platform with priority lenses applied to prioritize digital equity - Connect the Ready - Reach Me - Jumpstart

Year / Stage	Activities
2024 (cont.) Infrastructure Funding Program Iteration	○ Partnerships Enabling Middle Mile - Establish a resource bank for technical assistance and shared services - Statewide education & information campaigns developed and launched - Promote broadband career awareness & exploration - Tribal broadband initiative - ACP4ME campaign and research into alternatives if ACP is not re-funded - Digital equity story series - Evaluate the *Maine Policy Atmosphere, Challenges & Recommendations* document and prepare policy agenda
2025 Year One of Subgrantee Infrastructure Funding + Digital Equity Implementation	- Support and Implement Essential Middle Mile Investments - Develop proactive grant opportunities and competitive funding programs to support broadband deployment and digital inclusion programs - Establish Digital Equity Fund: Raise $3 million ○ Round one funding for networks of opportunity & core capacity partnerships ○ Round one competitive funding for regional/tribal partners - Coordinate training and career pathways - Create a talent pipeline particularly to marginalized communities - Interagency Broadband Working Group: audit of state resources - Connectivity Hubs - Round 2 - Host third annual Digital Equity Workshop - Will seek to host NDIA Net Inclusion Conference in 2025 or future years to showcase digital equity work in Maine - Launch Affordable Devices for ME - Launch Internet Safety for ME - ACP for ME Campaign and/or implement alternatives if ACP is not funded at the federal level - Develop and deploy financing solutions to extend resources - Ongoing measurement and progress monitoring - Support to Maine Telecommunications Relay Services for assistive technology transitions

Year / Stage	Activities
2026 Year Two of Subgrantee Infrastructure Funding + Digital Equity Implementation	• Continue infrastructure funding to unserved and underserved locations - Target: Deploy funding to reach approximately ***32,000*** by EOY • Implement extremely high cost location solutions • Support and implement Essential Middle Mile Investments • Digital Equity Fund: Raise $3 million • Host fourth annual Digital Equity Workshop
2027 Year Three of Subgrantee Infrastructure Funding + Digital Equity Implementation	• Continue infrastructure funding to unserved and underserved locations - Target: Deploy funding to reach approximately ***30,000*** locations by EOY • Implement extremely high cost location solutions • Support and implement Essential Middle Mile Investments • Digital Equity Fund: Raise $3 million • Launch Affordable Housing Connectivity Program • Interim impact evaluation: survey & focus groups, connectivity hub impact • Host fifth Annual Digital Equity Workshop
2028 Year Four of Subgrantee Infrastructure Funding + Digital Equity Implementation	• Continue infrastructure funding to unserved and underserved Locations - Target: Deploy funding to reach approximately ***30,000*** by EOY • Implement extremely high cost location solutions • Support and implement Essential Middle Mile Investments • Digital Equity Fund: Raise $3 million • Host sixth annual Digital Equity Workshop

5.6 Estimated Cost for Universal Service

MCA has estimated the cost of extending service of at least 100/20 Mbps to all of Maine's remaining (as of December 2022) 92,553 unserved and underserved locations to be between $542 million and $900 million. This estimate includes matching funds and involves servicing hard-to-reach locations with alternative technologies, utilizing the BEAD Program's requirement to establish an "Extremely High Cost Per Location Threshold" (EHCPLT). The detailed methodology and selection of the EHCPLT will be set and shared during the Initial Proposal process.

MCA will continue to work on identifying the additional sources of capital to complete the work of universal service (in addition to the subgrantee matching funds required as part of our subgrantee selection process). To do so, MCA will build from the Broadband Infrastructure Capital Markets Taskforce recommendations to extend MCA's financial resources and leverage public & private sector capital to support broadband investment and digital equity impact. Key to success will be enabling competitive broadband services and industry-driven investments in digital equity.

The Maine universal cost estimate was developed using modeling based on previously funded infrastructure projects in areas with varying location densities and aligns with other industry estimates used in publicly available materials, such as the Cartesian analysis. MCA will further refine this analysis for inclusion in its BEAD Initial Proposal submission in December 2023.

MCA shares NTIA's strong preference for deploying end-to-end fiber connectivity to unserved and underserved locations, as well as all eligible Community Anchor Institutions. MCA will incorporate the NTIA Eligible Entity Planning Toolkit's (EEPT) cost modeling tool when available. Using this and other tools, MCA will continue to refine the cost model used in the BEAD Initial Proposal, and will set the EHCPLT at a level that maximizes BEAD resources to ensure universal connectivity, deploys fiber in as many locations as possible, and supports necessary workforce activities.

At this time, it is unclear how much, if any, funding will remain for secondary BEAD priorities, such as providing connections for eligible Community Anchor Institutions (CAIs) or Multiple Dwelling Unit (MDU) deployment strategies. However, as CAIs and MDUs are critical assets, MCA will work to leverage digital equity funds, ARPA programming, and Middle Mile funds where possible to address connectivity needs.

Several factors will likely reduce the number of unserved and underserved locations in Maine before BEAD program implementation and subgrantee selection, resulting in some cost savings as the final cost models are established later in 2023. Those factors include:

- ISPs continue to invest in their own networks and extend service to more Mainers. MCA is working collaboratively with ISPs to better understand their future build plans and how many unserved and underserved locations could receive service in the coming year as we work through the BEAD planning and implementation process.

- MCA is deploying additional ARPA Capital Projects Funds, State and Local Fiscal Recovery Funds, NTIA BIP funding, and state bond funding to provide service to thousands of locations in the coming 12-18 months. Some of these locations would have otherwise been BEAD eligible and will not need BEAD funding if covered by other federal and state broadband deployment programs.

- The FCC's extension of the timeline for participants in the Alternative Connect America Model (ACAM), Enhanced Alternative Connect America Model (EA-CAM), and Connect America Fund Broadband Loop Support (CAF BLS) programs to extend 100/20 Mbps or better networks to align with BEAD program obligations. Many of these locations are unserved or underserved locations. Several Maine ISPs participate in the ACAM and CAF BLS programs, and early estimates indicate this may cover unserved or underserved locations that would otherwise have been BEAD eligible.

5.7 Alignment

The objectives of this plan will impact and interact with the goals of the State of Maine in several areas, including economic and workforce development, educational attainment, healthy aging, and improved access to telehealth and telemonitoring services.

Economic Development

The Maine 10-Year Economic Development Plan has three primary goals: 1.) to grow the average annual wage by 10% to benefit workers at all income levels; 2.) increase the value of what we sell per worker by 10%; and 3.) add 75,000 people to our talent pool by both increasing participation of those in Maine and attracting more people from other places. The measurable goals for increasing access to broadband and improving affordability named in this plan are also articulated in this economic development plan. They are being tracked along with numerous other metrics across agencies.

Access to affordable, reliable, high-speed broadband is central to Maine's ability to grow wages, improve productivity, and engage new talent. The new measurable objectives outlined in Maine's digital equity plan will further contribute to these goals by increasing access to devices and technical support to enable Mainers to engage in the economy and workforce fully, increasing the digital skills of Maine's current and future workforce to encourage engagement and productivity, and increasing accessibility of state resources essential to workforce and economic engagement. The measurable objectives outlined above will be added to broadband and digital equity metrics tracked by the Maine Connectivity Authority (MCA) within the 10-Year Economic Development Plan.

Maine's more rural communities have been left behind as digital infrastructure has been deployed elsewhere, resulting in a struggle to retain talented innovators and gain access to the global economy. Because ubiquitous connectivity is a crucial tenet of the state's 10-year economic development strategy, progress on our Broadband Equity, Access, and Deployment (BEAD) Program and Digital Equity goals will allow for more substantial progress on the state's economic development strategy. The opportunity presented by BEAD funding to provide service to Maine's no connection and unserved locations will be an essential step in advancing the state's economic development strategy.

MCA also recognizes a significant opportunity for Maine's heritage industries, based on our natural resources of woods and water, to evolve with the help of ubiquitous connectivity. The diversification of these heritage industries is a critical theme in the Maine Economic Development Strategy 2020-2029. Improved connectivity can provide the forest products, fishing, farming, tourism, and outdoor recreation industries with increased productivity and connections to more customers and markets. For example, tourism in Maine is a multi-billion dollar industry, and consumers expect the ability to stay connected during their trips. Visitors often combine recreation, remote work, social media, online reservations for the next leg of their journey, and so on. This requires connectivity.

Providing infrastructure and digital skills to all Maine communities will level the playing field for businesses and residents who want to pursue business in their part of the state. Broadband also adds to the resiliency of these communities, particularly in rural Maine, where many communities have struggled to diversify their economies beyond a traditional industry that has dominated their landscape for generations, and they have felt saddled with uncertainty for years.

Education

Maine has adopted a statewide educational attainment goal of 60% of Mainers with a degree or credential of value by 2025. As of 2021, this rate stands at 52.6%. Just one-third of Maine high school graduates enroll and graduate from college within six years. Economically disadvantaged students, as well as students who identify as Black, Hispanic, and Native American, are less likely to enroll, persist, and complete a degree or credential than other students. Improving access to affordable, reliable high-speed internet to low-income families and racial and ethnically diverse households could improve the ability of these students to engage with education online and ensure they have the digital skills and devices they need to access educational opportunities and successfully complete requirements.

Aging Populations

The State of Maine has established a Cabinet on Aging through executive order. This agency has a goal to help older adults age in place and follows the Governor's designation of Maine as an Age-Friendly State, in addition to being part of the AARP Network of Age-Friendly States and Communities, as well as the World Health Organization's Global Network for Age-Friendly Cities and Communities. Maine's Age-Friendly State Plan identified broadband access, digital skills, and access to devices and technical support as important elements to ensure that older adults can combat social isolation while accessing healthcare and other resources online. The domain of accessible communication and information speaks specifically to the need to increase broadband access to support Mainers at any age. The measurable goals outlined in this plan will be important to enable older adults to age in place with dignity and health, remain engaged in their communities, and access the support they need. MCA intends to partner with a broad network of organizations and volunteers, including AARP, already represented in the MCA Digital Equity Task Force, and the Maine Cabinet on Aging, to serve and support older adults in Maine.

Telehealth

A Telehealth and Telemonitoring Advisory Group was also established in statute for the State of Maine in 2017. The group was charged with identifying technical barriers to telehealth access and making recommendations to Maine's Department of Health and Human Services for improvements to telehealth and telemonitoring services statewide. Access to affordable, reliable, high-speed internet, devices, technical support, digital skills, education and tools to promote internet safety, and accessible healthcare resources online will all enable more telehealth services statewide. Establishing Connectivity Hubs (as outlined in this plan) to serve as telehealth access points will also improve access to virtual healthcare for populations that face barriers utilizing telehealth services.

The Telehealth and Telemonitoring Advisory Group submitted recommendations to inform the development of this Digital Equity Plan (included in the Appendix), including recommendations that align with measurable goals related to access, affordability, digital skills, technical support, and inclusive government resources. MCA will continue to partner with the Telehealth and Telemonitoring Advisory Group to implement the shared objectives.

Environmental

Maine's climate plan, [Maine Won't Wait](#), seeks to deploy broadband to 95% of Maine homes by 2025 and 99% by 2030 to help reduce vehicle miles traveled, which helps move toward meeting the state's emissions-reduction goals. The plan also specifies that in addition to reducing greenhouse emissions and improving community resilience, "(e)xpanding broadband is also a key recommendation in the state's 10-year economic strategy and was one of the top priorities identified by the Governor's Economic Recovery Committee to stabilize Maine's economy against the economic damage caused by COVID-19." As the State executes an aggressive buildout of Electric Vehicle (EV) charging and grid modernization strategies, MCA will seek to ensure connectivity is well integrated into infrastructure upgrades through forums such as the Governor's Infrastructure Task Force and the Broadband Working Group.

Civic Engagement

The State of Maine does not have formally adopted goals for the efficient delivery of services or civic engagement that were discovered during our planning and outreach process. However, access to affordable internet and the tools and skills to adopt and utilize this technology by more Maine people will facilitate greater civic, community, and social engagement. In addition, online delivery of services is often more efficient: enabling both accessible state and local resources and improving Mainers' ability to access them will improve service delivery.

Civil Rights

During the planning process, MCA reviewed findings and recommendations from the [Maine Advisory Committee to the US Commission on Civil Rights](#) from a 2022 report. These recommendations include expanding access to digital skills training and assessments, improving broadband access and affordability for underserved individuals and communities (Black Mainers, Latino Mainers, Native Americans), improving device access to meet the needs of older adults, individuals with disabilities and those with language barriers, and closely connecting broadband infrastructure expansion and funding with digital inclusion activities that will ensure adoption by those most impacted by the digital divide.

Coordination with Municipal, Regional and Tribal Digital Equity Plans

MCA collected 25 existing municipal and regional digital inclusion plans as part of the outreach to create a digital equity asset inventory. These plans were created primarily between 2017-2022 for 34 towns and four counties or regions.

In analyzing these plans, MCA discovered that they had been implemented to varying degrees and sometimes not at all and that none of the existing plans met all of the requirements of the Digital Equity Act for the state plan. MCA opted not to incorporate these plans into the state plan directly but instead ensured that the Regional and Tribal Broadband partners had access to the plans as they conducted outreach and planning in their regions. MCA opted to make regional and tribal digital equity planning and coalition building a core component of the development of the state plan. The goal of developing strategies at this scale is to ensure that the state digital equity plan recognizes and accounts for differences from region to region and to ensure that assets can be developed at scale to support all of the individuals and communities within the region or Tribe, even if resources at the community or local level are limited.

Regional and Tribal partners were identified through a competitive process to support every region and the five Wabanaki Tribes, and each partner was tasked with creating a digital equity coalition made up of partners that support and represent the covered populations. MCA collected 12 regional plans for 16 counties and a single plan for the five Tribal Nations with separate visions and budgets for each Tribe.

The regional and tribal plan development resulted in additional outreach and engagement to covered populations and organizations that support them within each region, the identification of additional digital equity assets in each region, and the plans propose specific digital inclusion strategies that will be funded as part of the state's implementation plan working toward the measurable goals. The Regional and Tribal Digital Equity Plans (Appendix G) propose approximately $10 million annually in digital inclusion activities throughout the five-year implementation period.

Complementary Funding Sources

- Maine Jobs & Recovery Program (ARPA) Funds ($6 million) allocated by the State of Maine for broadband are being utilized to support the Regional and Tribal Broadband Partners Program 2023-2024. This two-year program was designed to provide capacity for developing community-led broadband solutions and digital equity planning across every county of the State. The second year of this program (2024) will fund the first year of digital inclusion strategies outlined in the regional and tribal plans before the State Capacity Grant funding is deployed, starting in late 2024 or early 2025.

- Capital Projects Fund (CPF) funding ($11.8 million) for Connectivity Hubs will complement digital equity implementation in 2025-2026. These funds will be deployed in underserved regions and tribal communities to support connectivity for specific covered populations. Connectivity Hubs will help achieve affordable access goals by providing public access to the internet, access to affordable devices for public use and lending programs, workforce and digital skills training, education and telehealth programming.

- NTIA funding and Capital Projects Fund for Middle Mile investments will also complement digital equity investments by enabling access to the last mile - especially for those in rural areas - and providing high-speed access to Connectivity Hubs as a source of public access to devices, technical support, digital skills training and other resources particularly for underserved covered populations.

- MCA has identified a key strategy to launch and raise funds for a Digital Equity Fund ($15 million), supported by the private sector and philanthropic funding, to support digital equity implementation measures outlined in this plan.

- The Maine State Library has submitted a Congressionally Directed Spending request ($10 million), supported by MCA, which, if awarded, would support infrastructure investment in libraries throughout the state, including rural and under-resourced communities. This infrastructure investment would complement libraries' capacity to provide affordable access to the internet and devices, technical support, and digital skills training and/or digital navigators as proposed by regional and tribal broadband plans.

- MCA and its partners will work to identify opportunities for and support proposals for the Digital Equity Competitive Grants program to maximize this additional support to our partners toward implementing Maine's digital equity priorities.

Throughout the planning process, it became clear that closing the digital divide in Maine will be an ongoing challenge that requires significant resources. This is particularly true because our outreach and engagement process illustrated just how important staffing capacity is to this challenge: staffing for digital navigator positions, digital skills instruction in various locations and formats, staffing for technical support, and staffing to help facilitate partnerships across organizations and regions. Because of these needs, MCA will work closely with other partners to identify opportunities to match funding or build digital inclusion activities into existing programs and resources.

5.8 Technical Assistance

The following technical assistance topics would be beneficial to help the MCA team with the Initial and Final Proposals and the BEAD program:

- Internet safety and cyber security
- Device lending best practices
- Technical support workforce development resources
- Compliance and reporting - timelines, templates, tutorials, and training for new staff
- Performance monitoring
- Subgrantee management and reporting
- Procurement process, and managing procurement with subgrantees
- Buy America regulations for this program
- Audit requirements

6. Conclusion

Maine faces a perfect storm as we work to achieve digital equity and universal broadband service. Our remote and rugged terrain makes our state one of the most challenging and expensive to reach with digital infrastructure. As the oldest state in the nation, we have a significant population who are not digital natives. Maine's median household and per capita income lag behind most other states. Almost all of us live in small, rural communities with limited resources. These forces combine to shape the contours of the digital divide in Maine.

The National Telecommunications and Information Administration (NTIA) estimates that 89% of Mainers identify as a population likely to be most impacted by the digital divide, referred to as "covered populations" in the Digital Equity Act. With a state so difficult to serve and so deeply affected, the importance of the transformational opportunity of BEAD and digital equity funding for Maine cannot be overstated.

Building on Maine's strong foundation of community broadband planning, the grantmaking practices of the ConnectMaine Authority, the presence of a strong state broadband office, and MCA's running head start on grantmaking with the distribution of CPF and ARPA funds, Maine is poised to execute on this broadband action plan and facilitate a transformational investment through its implementation.

The next chapter of MCA's evolution will build upon the lessons learned from our existing infrastructure grant programming, be refined and honed with stakeholder feedback, and designed to operate within the parameters of the BEAD Program. Paired with our Maine Digital Equity Plan, MCA is creating an inclusive and comprehensive digital ecosystem where people not only have access to internet service, but can also afford that service and utilize the skills, devices, and support to derive the most benefit from the technology.

One thing has been clear and consistent throughout the planning process: Maine people recognize that digital connectivity is essential to our daily lives. As one focus group participant said, **"You can *survive* without internet access, but you can't really *live* or function."** This Five Year Action Plan presents the road map for Mainers to thrive in a digitally connected future.

7. Key Terms & Definitions

The following definitions are from the [NTIA BEAD Notice Of Funding Opportunity](#).

Broadband; Broadband Service—The term "broadband" or "broadband service" has the meaning given the term "broadband internet access service" in Section 8.1(b) of title 47, Code of Federal Regulations, or any successor regulation, meaning it is a mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up internet access service. This term also encompasses any service that the Commission finds to be providing a functional equivalent of the service described in the previous sentence or that is used to evade the protections set forth in this part.

Broadband DATA Maps—The term "Broadband DATA Maps" means the maps created by the Federal Communications Commission under Section 802(c)(1) of the Communications Act of 1934 (47 U.S.C. § 642(c)(1)).

Community Anchor Institution (CAI)—The term "community anchor institution" means an entity such as a school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public 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. An Eligible Entity may propose to NTIA that additional types of institutions should qualify as CAIs within the entity's territory. If so, the Eligible Entity shall explain why it has determined that the institution or type of institution should be treated as such and affirm that the institution or class of institutions facilitates greater use of broadband service by vulnerable populations, including low-income individuals, unemployed individuals, children, the incarcerated, and aged individuals.

Digital Equity—The term "digital equity" means the condition in which individuals and communities have the information technology capacity that is needed for full participation in the society and economy of the United States.

Eligible Community Anchor Institution—The term "eligible community anchor institution" means a community anchor institution that lacks access to Gigabit-level broadband service.

Eligible Entity—The term "Eligible Entity" means any State of the United States, the District of Columbia, Puerto Rico, American Samoa, Guam, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands or, in the case of an application failure, a political subdivision or consortium of political subdivisions that is serving as a Substitute Entity.

Extremely High Cost Per Location Threshold— An "Extremely High Cost Per Location Threshold" is a BEAD subsidy cost per location to be utilized during the subgrantee selection process described in Section IV.B.7 of

this NOFO above which an Eligible Entity may decline to select a proposal if use of an alternative technology meeting the BEAD Program's technical requirements would be less expensive.

Funded Network—The term "Funded Network" means any broadband network deployed and/or upgraded with BEAD Program funds.

High-Cost Area—The term "high-cost area" means an unserved area in which the cost of building out broadband service is higher, as compared with the average cost of building out broadband service in unserved areas in the United States (as determined by the Assistant Secretary, in consultation with the Commission), incorporating factors that include— (I) the remote location of the area; (II) the lack of population density of the area; (III) the unique topography of the area; (IV) a high rate of poverty in the area; or (V) any other factor identified by the Assistant Secretary, in consultation with the Commission, that contributes to the higher cost of deploying broadband service in the area. For purposes of defining "high-cost area," the term "unserved area" means an area in which not less than 80 percent of broadband-serviceable locations are unserved locations. NTIA will release further information regarding the identification of high-cost areas for purposes of BEAD funding allocations at a later date.

Location; Broadband-Serviceable Location — The terms "location" and "broadband serviceable location" mean "a business or residential location in the United States at which fixed broadband Internet access service is, or can be, installed."

Middle Mile Infrastructure — The term "middle mile infrastructure" (A) means any broadband infrastructure that does not connect directly to an end-user location, including a community anchor institution; and (B) includes—(i) leased dark fiber, interoffice transport, backhaul, carrier-neutral internet exchange facilities, carrier-neutral submarine cable landing stations, undersea cables, transport connectivity to data centers, special access transport, and other similar services; and (ii) wired or private wireless broadband infrastructure, including microwave capacity, radio tower access, and other services or infrastructure for a private wireless broadband network, such as towers, fiber, and microwave links.

Non-Traditional Broadband Provider—The term "non-traditional broadband provider" means an electric cooperative, nonprofit organization, public-private partnership, public or private utility, public utility district, Tribal entity, or local government (including any unit, subdivision, authority, or consortium of local governments) that provides or will provide broadband services.

Program—The term "Program" means the Broadband Equity, Access, and Deployment Program.

Project—The term "project" means an undertaking by a subgrantee to construct and deploy infrastructure for the provision of broadband service. A "project" may constitute a single unserved or underserved broadband-serviceable location, or a grouping of broadband-serviceable locations in which not less than 80 percent of broadband-serviceable locations served by the project are unserved locations or underserved locations.

Reliable Broadband Service—The term "Reliable Broadband Service" means broadband service that the Broadband DATA Maps show is accessible to a location via:10 (i) fiber-optic technology;11 (ii) Cable Modem/Hybrid fiber-coaxial technology;12 (iii) digital subscriber line (DSL) technology;13 or (iv) terrestrial fixed wireless technology utilizing entirely licensed spectrum or using a hybrid of licensed and unlicensed spectrum.

State—The term "State" means, for the purposes of the BEAD Program, any State of the United States, the District of Columbia, and Puerto Rico.

Subgrantee/Subrecipient—The term "subgrantee" or "subrecipient" means an entity that receives grant funds from an Eligible Entity to carry out eligible activities.

Underrepresented Communities—The term "underrepresented communities" refers to groups that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, including: low-income households, aging individuals, incarcerated individuals, veterans, persons of color, Indigenous and Native American persons, members of ethnic and religious minorities, women, LGBTQI+ persons, persons with disabilities, persons with limited English proficiency, persons who live in rural areas, and persons otherwise adversely affected by persistent poverty or inequality.

Underserved Location—The term"underserved location" means 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.

Underserved Service Project—The term "Underserved Service Project" means a project in which not less than 80 percent of broadband serviceable locations served by the project are unserved locations or underserved locations. An "Underserved Service Project" may be as small as a single underserved broadband serviceable location.

Unserved Location—The term "unserved location" means 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.

Unserved Service Project—The term "Unserved Service Project" means a project in which not less than 80 percent of broadband serviceable locations served by the project are unserved locations. An "Unserved Service Project" may be as small as a single unserved broadband-serviceable location.

8. Appendices

Appendix A: [Get Ready Community Support- Program Evaluation Plan](#)

Appendix B: [Jumpstart Connectivity Initiative Grants– Evaluation Plan](#)

Appendix C: [Maine Broadband Workforce Strategy– March 2023](#)

Appendix D: [State Digital Equity Plan](#) (draft)

Appendix F: [Local Engagement Tracker](#)

Appendix G: [Regional and Tribal Plans](#)

Appendix H: [MCA Middle Mile NTIA Proposal- Executive Summary](#)