American Broadband Initiative

PROGRESS REPORT

JUNE 2020

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EXECUTIVE SUMMARY

On February 13, 2019, the American Broadband Initiative (ABI) was launched with the release of the Milestones Report, detailing the Administration's strategy to drive changes across Federal Agencies to identify and remove barriers to broadband access and leverage public assets and resources to expand our Nation's broadband infrastructure capacity. The ABI's mission is built on three core principles:

- Government processes should be clear, transparent, and responsive to stakeholders.
- Federal assets should provide the greatest possible benefit to stakeholders and the public.
- The Federal Government should be a good steward of taxpayer funds.

The Milestones Report outlined time-framed commitments from Agencies and the three "workstreams" that were created to promote accountability and focus Agencies on the implementation of the ABI's mission. Since its formation, the ABI has made substantial progress on the identified commitments in the report. This progress report is intended to provide the public with an update on its work to date. Of the 60 commitments included in the original Milestones Report, 48 (80%) have been successfully completed. The remaining 12 commitments are in progress. Appendix A provides the status of all the Agency and workstream actions.

Highlights of the accomplishments include:

1. Through the ReConnect program, as of March 2020, the **U.S. Department of Agriculture (USDA)** awarded over $744 million in funds to support more than 80 broadband projects benefiting more than 430,000 rural residents in 34 states (see pages 18-19). The **Federal Communications Commission (FCC)** and USDA also established processes to coordinate awards for rural broadband deployment to ensure that USDA-funded grants do not overlap with the FCC's $20 Billion Rural Digital Opportunity Fund (RDOF) or the $9 Billion 5G Fund for Rural America (see pages 22-23).

2. **The Department of the Interior (DOI)** launched a Joint Overview-Established Locations (JOEL) mapping tool to make site locations visible to service providers looking to locate equipment on Federal property, and added new data layers from the General Services Administration, the U.S. Forest Service, and U.S. Postal Service. Since its release, the map has been viewed 4,294 times, averaging 7 views per day (see page 14).

3. In June 2019, the **General Services Administration (GSA)** published the FY 2018 Federal Real Property Profile (FRPP) public data set, updated with a set of filters allowing users to identify Federal property that could be candidates for communications infrastructure installation. This publicly available data now includes the height of buildings and facilities and the elevation above mean sea level, helping the communications industry to determine a structure's suitability for siting communications facilities. In June 2020, GSA will update the FRPP public data set with more current data from FY 2019 (see page 15).

4. In March 2019, the **Department of Commerce's National Telecommunications and Information Administration (NTIA)** updated its website with information about Federal Agencies' permitting processes and funding information to provide easier, "one-stop" access to the information. NTIA continues to update this information with support from Agencies (see pages 11 and 22).

5. In September 2019, **NTIA** completed the first phase of its National Broadband Availability Map (NBAM), a geographic information system platform which allows for the visualization and analysis of federal, state, and commercially available data sets. As of June 2020, the NBAM program includes 18 States who are partnering on this critical broadband data platform (see page 20).

6. In February 2020, **GSA** and **USDA's Forest Service (FS)** finalized a revised Standard Form (SF-299), making this Common Application Form suitable for telecommunications purposes (see page 8).

Although a tremendous amount of progress has been made to identify and remove Federal barriers to broadband access, there is still work to do to achieve the President's priority of ensuring that broadband is an engine for economic growth and prosperity for all American communities. The ABI continues to be an important part of the Administration's overall strategy. The entire Trump Administration is committed to advancing the ABI's mission to achieve full access to high-speed broadband throughout the country.

In addition to the contents of the report, a number of attachments are included that reflect the progress of the ABI workstreams and informed their work. These include:

- Appendix A: Chart depicting status of Milestones Report actions
- Appendix B1: Streamlining Federal Permitting Workstream data-call survey
- Appendix B2: Streamlining Federal Permitting Workstream survey results and analysis
- Appendix C: Streamlining Federal Permitting Workstream Memo on Fees
- Appendix D: Leveraging Federal Assets Workstream Recommendations Report
- Appendix E: Federal Funding Workstream Analysis
- Appendix F: Federal Funding Workstream Findings and Recommendations
- Appendix G: Memo from State Broadband Leaders Network (SBLN)
- Appendix H: Additional highlights from the FCC

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INTRODUCTION

American Broadband Initiative – Workstreams Update

The ABI Milestones Report laid out an ambitious set of actions organized around three distinct workstreams including: Streamlining Federal Permitting, Leveraging Federal Assets, and Maximizing the Impact of Federal Funding. During 2019, the workstreams focused on analyzing options and identifying recommendations for addressing challenges faced in the deployment of broadband, in addition to completing actions that were within the scope of Agency authorities. This report documents the actions of each Agency and the workstreams related to their respective efforts to fulfill the ABI's promise.

To the extent that any actions were not completed, this report addresses the steps Agencies are taking to resolve the remaining actions. In addition, if Agencies completed actions that were in support of the mission of ABI, but not included in the 2019 Milestones Report, the actions are included in the appropriate section of this progress report.

STREAMLINING FEDERAL PERMITTING

Objective

A streamlined Federal permitting process will make it easier for network builders and service providers to access Federal assets and rights-of-way, reducing the regulatory burden and simplifying the deployment of broadband networks. (ABI Milestones Report, page 14)

In spring 2018, the Streamlining Federal Permitting workstream issued a data call to all Federal Agencies to identify the authorities that are used to support broadband expansion projects. Their analysis sought to identify streamlining measures which could be implemented to reduce regulatory permitting burdens, harmonize practices within and across Agencies, and eliminate duplicative permitting processes (see Appendices B1 and B2).

Actions taken and initial impacts observed since February 2019 include:

Striving for a single, "common form" for purposes of broadband permitting

- **GSA** and **USDA's FS**, in February 2020, finalized the process to make the existing Standard Form 299 (SF-299) a Common Application Form suitable for telecommunications purposes. Public comments were solicited through publication in the Federal Register. The SF-299 is now the common application form that will be used by all Federal Agencies for broadband/telecommunications permitting. Agencies anticipate that stakeholders will benefit from having a common application form that is accepted by all Agencies which authorize communications facilities or uses on Federal assets. The use of the SF-299 should reduce costs and processing times as applicants will have a standard form to complete for all Agencies. A fillable version of the form is being distributed to Agencies, and Agencies will be encouraged to further improve their processes by accepting the SF-299 electronically. The form can be accessed at the FS site, and NTIA's BroadbandUSA website.

- **BLM**, on April 15, 2020, launched a new electronic filing system that will streamline applications for communications use rights-of-way on public lands. The system, called eSF-299, is part of an Interior-wide effort to facilitate broadband connectivity, helping rural communities across the West better connect to the world and grow their economies. The web-based application aims to simplify the application process, ultimately reducing regulatory compliance burdens. The eSF-299 system can be accessed at https://csrc.blm.gov.

Streamlining internal Agency procedures for permitting on Federal lands

- **FS**, in September 2019, published in the Federal Register a proposed rule to amend its existing regulations to implement part of Title VIII, Subtitle G, Section 8705, of the Agriculture Improvement Act of 2018, which requires regulations that streamline the Agency's procedures for evaluating applications to locate or modify communications facilities on National Forest System lands. The amended regulation will provide for a uniform and standardized process for locating or modifying communications facilities, resulting in proponents and applicants having a more predictable timeline for responses to their proposals and applications, minimizing processing times and costs, and improving customer service. The final regulation will also provide for a standard 30-year term for communications use authorizations. FS issued a final rule in April 2020.
- **DOI's Bureau of Land Management (BLM)** requested and received a Regulatory Identification Number (1004-AE60) for the spring 2019 Unified Regulatory Agenda proposing to amend its existing right-of-way regulations to streamline the communications use program. It would do so by improving response times and addressing the current lack of certainty in the communications use permitting process, which impacts industry construction schedules and may increase construction costs. The proposed rule would also update cost recovery fee schedules for right-of-way and add provisions consistent with the Section 512 Amendment to the Federal Land Policy and Management Act (FLPMA) for vegetation management activities.
- The **Department of Defense (DoD)**, successfully completed its major task by directing streamlined commercial broadband permitting by all DoD Components, including the Military Departments (MILDEPs) of the Army, the Navy and the Air Force. DoD permitting processes for commercial broadband services applications are now entirely in accordance with the Mobile Now Act signed into law by the

President in March 2018, chiefly so that no DoD Component may take more than 270 days to fully process all such applications.

  - In particular, the Army and the Air Force have determined to standardize and streamline by using the U.S. General Services Administration issued Standard Form (SF) 299 Application for Transportation, Utility Systems, Telecommunications and Facilities on Federal Lands, as revised in February 2020. The Air Force is currently in the process of obtaining OMB approval for official use of the SF-299. Once OMB approves, the Air Force will issue Interim Guidance updating its implementing Air Force Instructions (AFI-s) for granting use of Air Force real property. All Air Force-approved forms and publications are available at the Air Force e-publishing website, accessible to both government personnel and the general public.
  - The Department of the Navy (DON) continues to use its streamlined deployment process, reduced to less than one year with 2016 guidance that expedites the deployment of commercial wireless broadband on Navy and Marine Corps installations. This policy has been used successfully to issue leases to wireless broadband companies on approximately 20 Navy and Marine Corps installations. Leasing activities for other installations are underway. The 2016 policy is being revised to better accommodate 5G and associated distributed antenna systems. As allowed by the Mobile Now Act, this policy revision will include a form similar to the SF-299 that captures information necessary and unique to DON requirements for issuing real estate agreements, including mission assurance requirements. Additionally, within the DON, local Commanders have authority and responsibility for the electromagnetic spectrum on their installations. To expedite activation of 5G/broadband service, in May 2020, the DON established policy that local Commanders may issue an interim authority to radiate pending ongoing electromagnetic interference studies provided specific electromagnetic radiation hazards to personnel, fuel, and ordnance have been addressed successfully.
  - NTIA will cross-post this DoD information on the one-stop site for federal broadband permitting information.
- **DoD**, in September 2019, through its Joint Spectrum Center, also completed a streamlined process for analyzing the potential for electromagnetic interference from the installation of mobile cellular broadband infrastructure and services on DoD military bases and other Federal property. New wireless deployments on

DoD military bases must be analyzed to de-conflict or mitigate electromagnetic interference to or from existing and planned DoD dependent spectrum systems, and to prevent radiation hazards to personnel, fuel, and ordnance. The DoD Joint Spectrum Center expedited the system-based analysis approach that resulted in significant time-savings of many months enabling faster rollouts of broadband infrastructure and services on military bases.

- To expand on the above individual agency actions, **NTIA** completed an internal workplan and associated milestones for agency implementation of the broadband permitting reforms called for in the MOBILE NOW Act, which include developing application tracking procedures, speeding application reviews and approvals, expediting renewals, and prioritizing permits in previously-disturbed rights-of-way. NTIA coordinated with DOI, USDA, DoD, DOT, the Office of Management and Budget (OMB), and GSA to develop recommendations for streamlining processes for considering applications to locate broadband facilities on Federal property. The Agencies anticipate providing them to Congress in summer 2020.

Making it easier to understand Federal permitting processes

- **NTIA** updated its website with information about all Agencies' permitting processes to provide easier, "one-stop" access to the information. By July 2020, NTIA plans to update its website to include information about agency fees associated with permitting infrastructure on Federal lands, add information about the Department of Energy permitting processes, and highlight permitting process improvements made by the Department of Defense.

Tracking agency compliance with permitting reform timeframes and deadlines

- Executive Order (E.O.) 13821, Streamlining and Expediting Requests to Locate Broadband Facilities in Rural America, requires **GSA** to report on Agency permitting timeframes. Since December 2018, GSA has submitted four quarterly reports to OMB. The October 2019 quarterly report features several key updates, for example, improved tracking and accounting of pending applications and a new data summary table to better capture these findings. These changes are a product of the collaborative efforts of GSA and the workstream members to continuously improve the data collection process. This improved process will, in turn, support the acceleration, deployment, and adoption of broadband connectivity in rural America.

Council on Environmental Quality (CEQ) pursues modernization of National Environmental Policy Act (NEPA)

- On March 20, 2018, **CEQ** and **OMB**, in consultation with the Permitting Council, issued a One Federal Decision Framework document to provide Federal Agencies with guidance on implementing E.O. 13807. Section 5 of E.O. 13807 directs all Federal Agencies with environmental review, authorization, or consultation responsibilities for major infrastructure projects to develop a single Environmental Impact Statement (EIS) for such projects, sign a single Record of Decision (ROD) and issue all necessary authorizations within 90 days thereafter, subject to limited exceptions. CEQ continues to work with Federal Agencies to review regulations and policies to identify impediments to the efficient and effective processing of environmental reviews and permitting decisions.
- On January 9, 2020, the **CEQ** announced a notice of proposed rulemaking (NPRM) titled "Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act." CEQ's proposed rule would modernize and clarify the CEQ regulations to facilitate more efficient, effective, and timely NEPA reviews by simplifying regulatory requirements, incorporating key elements of the One Federal Decision policy, codifying certain case law and CEQ guidance, updating the regulations to reflect current technologies and Agency practices, eliminating obsolete provisions, and improving the format and readability of the regulations. The proposed rule seeks to reduce unnecessary paperwork and delays, and to promote better decision-making consistent with NEPA's statutory requirements. Additional information is available at: https://www.whitehouse.gov/ceq/nepa-modernization.

Identifying opportunities to "harmonize" permitting fees across the Federal Government

- Agencies recognize that it is challenging for telecommunications providers to plan for broadband deployment without having clear, consistent policies for determining permitting fees among the Federal property managing Agencies. To address this, the workstream members analyzed their Agencies' regulations and policies governing the calculation of cost recovery and rental fees to identify the methodologies that affect valuation of the easement/rights-of-way, and the source of those policies (statutory or otherwise). The workstream presented its findings to OMB and the ABI Executive Leadership Team (see Appendix C) and is

considering options for bringing more predictability to fee determinations by using rental schedules rather than appraisals.

LEVERAGING FEDERAL ASSETS

Objective

Federal assets such as tower facilities, buildings, and land should be made available for use in deploying broadband infrastructure as much as possible to lower the cost of broadband buildouts and encourage private-sector companies to expand telecommunications infrastructure, especially in rural America. (ABI Milestones Report, page 19)

The Leveraging Federal Assets workstream has made progress toward its objectives and the commitments in the Milestones Report. In August 2018, the workstream completed a cross-Agency survey to identify Agency policies with respect to the use of property, easements, and rights-of-way for potential broadband and/or telecommunications use. The survey collected information regarding current and potential Federal real property assets available for broadband deployment, and the policies or regulations that impacted the use of those assets. Following the completion of the survey, Agencies helped make those assets visible and available to service providers and the public through visualization tools produced by GSA and DOI (described below).

The workstream also developed a Recommendations Report, delivered to the ABI Executive Leadership Team in March 2020 (see Appendix D). The recommendations address Agencies' regulations and policies governing the use of Federal assets for broadband infrastructure to facilitate the increased private use of these assets for telecommunications.

Additional updates, actions taken, and initial impacts observed since February 2019 include:

Making Federal assets, property and land more visible to service providers looking to locate equipment on Federal property

- In conjunction with the release of the Milestones Report, **DOI** published a new mapping tool of DOI towers available for commercial use. The Joint Overview-Established Locations (JOEL) map makes site locations visible to service providers looking to locate equipment on Federal property.

- In November 2018, DOI updated the JOEL map to include the GSA Fiscal Year (FY) 2018 Federal Real Property Profile (FRPP) data set and built widgets to help users find sites that were on or near Bureau of Land Management (BLM) land. Additionally, U.S. Postal Service facilities were added as a layer. DOI also improved user interface components and added a user guide to help the public understand how to use the app and widgets.
- DOI is planning a mechanism to allow other Agencies to provide updates to the DOI map and will request input from the private sector to ensure the JOEL map provides a useful service.

- **BLM** issued 10 new authorizations for communications uses since October 1, 2019, and 26 new broadband authorizations since January 2017, including three authorizations to promote rural broadband capacity for Emergency Medical Services (FirstNet).
- **GSA** published the FY 2018 FRPP public data set in June 2019 (with input from the broadband sector), which lists property under the custody and control of Executive-branch Agencies.
  - GSA also updated the geographic information system (GIS)-enabled map for the Federal Government's centralized inventory of real property for FY 2018. The updated version of the FRPP map includes a set of filters that will allow users to identify Federal properties that are candidates for communications infrastructure installation. The public can use the FRPP map and its underlying data in a variety of ways, including searching for Federal property in a certain geographic area, sorting by Federal Agency, or accessing utilization rating for specific properties.
  - The FRPP public data set and the FRPP map published in June 2019 include the height of buildings or facilities and the elevation above mean sea level, which will further help industry to determine a structure's suitability for siting communications facilities.
  - GSA provided information on how to use the FRPP map tool on January 28, 2020. This training provided the telecommunications industry with an understanding of how the FRPP map can be used to identify Federal property that may be ideal sites for installing telecommunications

infrastructure. Stakeholders may submit questions and feedback to: FRPP@gsa.gov.

- **FS** launched a new online map viewer available to the public. The purpose of this map viewer is to provide information on communications sites across the United States that are located on National Forest System lands. The map viewer provides essential information for siting communications facilities, including location, site designation, and contact information for the local Forest Service office that is responsible for administering the site. The map viewer was developed in response to an internal need, as well as a need from industry to have the ability to quickly identify locations on National Forest System lands that are available for wireless communications uses.

Encouraging State DOTs to accommodate broadband deployments in Federal highways

- At the **Department of Transportation (DOT)**, the **Federal Highway Administration (FHWA)** is drafting a proposed rule to facilitate broadband infrastructure deployment in the right-of-way (ROW) of applicable Federal aid highway projects. The proposed rule will implement provisions of the MOBILE NOW Act (codified at 47 U.S.C. §1504) to ensure that States meet specific registration, notification, and coordination requirements for such broadband infrastructure ROW efforts. The FHWA anticipates publishing the proposed rule, which is on the fall 2019 Unified Agenda, in mid-2020.
- **FHWA** sponsored four Utility Summits in 2019. The summits provided an opportunity for State DOTs to provide input and better inform the development of policy, model agreements, and ways to accommodate utilities in the ROW.

Promoting the use of excess fiber capacity in Department of Energy (DOE) networks

- In consultation with the **Department of Energy (DOE)** Office of Electricity, the Western Area Power Administration (WAPA) and Southwestern Power Administration (SWPA) each completed a feasibility assessment plan to determine whether WAPA and SWPA excess fiber can be leased to their customers and broadband service providers. As of June 2020, DOE is working with OMB to finalize the aggregated feasibility assessment report, which was sent to the White House on February 14, 2020.

- **GSA**, in December 2019, completed a report on incentivizing State and local governments to provide real property information on assets suitable for communications facility installations and the feasibility of establishing or operating a database to which State and local governments can voluntarily submit such information, as required by Section 608(d), Division P, Consolidated Appropriations Act, 2018 (Pub. L. No. 115-141). The report was transmitted to the Senate Committee on Commerce, Science, and Transportation; the Senate Committee on Homeland Security and Governmental Affairs; the House Committee on Energy and Commerce; the House Committee on Transportation and Infrastructure; and the House Committee on Oversight and Government Reform.

Promoting the use of spectrum-sharing for broadband access

- **NTIA**, in collaboration with the **Federal Communications Commission (FCC)**, continues to advance the Citizens Broadband Radio Service (CBRS), a novel mid-band spectrum-sharing system whereby carriers can deploy 5G using mid-band spectrum that is used sporadically by Federal operations. In development since 2012, CBRS is reaching the point of successful commercial implementation, with the results holding promise for increased spectrum sharing for broadband access.

FEDERAL FUNDING WORKSTREAM

Objective

Federal funding for broadband should target areas of need, be simple for broadband project sponsors to identify funding opportunities, and leverage State/local policies and programs to make better and more efficient use of Federal dollars. (ABI Milestones Report, page 25)

The Federal Funding workstream issued a data call in 2018 to all Federal Agencies to identify Federal funding sources that could be used to support broadband expansion projects, as well as potential synergies and points of coordination. This data-call led to a point-in-time assessment of the programs' funding criteria, programmatic definitions, and opportunities for coordination (see Appendix E). From this analysis, the workstream developed "Findings and Recommendations," delivered to the Executive Office of the President (see Appendix F). Agencies continue to evaluate programmatic changes that may be feasible within the scope of current authorities and funding levels.

In addition, the workstream appreciates the interest from Congress in encouraging better coordination between the Agencies that administer broadband programs. In February 2020, USDA, NTIA, and the FCC delivered a joint report to Congress pursuant to Section 6212 of the Agriculture Improvement Act of 2018 (2018 Farm Bill) (Pub. L. 115-334). The report describes current Agency efforts to coordinate funding and on-going work through the Federal Funding workstream to further improve coordination, consistent with the objectives of the ABI.

Additional updates, actions taken, and initial impacts observed since February 2019 include:

Launching a new source of broadband funding for unserved rural areas, modernizing the application process and streamlining environmental reviews

- Beginning in FY 2018, Congress appropriated $600 million to **USDA** to support the ReConnect Program, which is a broadband pilot program that offers Federal loans, grants, and combinations thereof to facilitate broadband deployment in rural areas. ReConnect loans and grants provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to

provide broadband service to rural areas without sufficient broadband access, defined as 10 Mbps downstream and 1 Mbps upstream. USDA began accepting applications for funding in May 2019. The Agency received 146 applications, requesting over $1.4 billion in funding. To date, USDA has awarded over $744 million in funds to support over 80 projects which will benefit more than 430,000 rural residents in 34 States.

- To support the ReConnect program, **USDA** developed a new electronic intake system that was activated in May 2019. The new system walks applicants through the process, clearly outlining requirements, providing helpful hints in the form of "Tool Tips," and notifying applicants of obvious errors or omissions within their application.
- In conjunction with implementation of the ReConnect program, **USDA's Rural Utilities Service (RUS)** also completed the development of a new interactive mapping tool integrating information from multiple Federal Agencies and improving program transparency through GIS maps of the areas where applicants are seeking funding from RUS, and areas where funding has been awarded.
- To support the ambitious timeline for the ReConnect program, **USDA** updated Environmental Regulations at 7 C.F.R. §1970 in October 2019. These changes enable RUS to obligate program funding before all required environmental reviews are complete, which gives the Agency additional time to complete all necessary reviews before any Federal dollars are advanced. This timing change enabled the Agency to move forward on projects, giving surety to applicants, without undercutting any of the environmental review process or standards that are in place. Additional information on environmental studies and environmental policies and procedures were published.

Improving the accuracy and visualization of broadband availability data to promote coordination and effective use of Federal funding

- **NTIA** completed the first phase of its National Broadband Availability Map (NBAM) in September 2019. The NBAM is a geographic information system that allows policymakers to compare Federal, State, and commercially available data sets.
    - The NBAM will help identify regions with insufficient service, compare multiple data sets to identify discrepancies in broadband availability, and produce reports and analyses that can be used for broadband policy, planning, and investment decision-making. It will be accessible only by State and Federal partners to allow for the inclusion of non-public, proprietary data that has licensing restrictions. As the pilot moves forward, NTIA will test and refine the map's functionality and expand it to other States and Territories, while also seeking to incorporate data from other partners and the broadband industry.
    - NTIA has incorporated more than 100 layers of data into the NBAM, including: FCC Form 477 Fixed Broadband Availability; FCC Connect America Fund (CAF) 2; USAC High Cost Universal Broadband; USDA-RUS / ReConnect Eligibility Data; M-Lab Fixed Speed Test; and data from the eight partner States (California, Maine, Massachusetts, Minnesota, North Carolina, Tennessee, Utah, and West Virginia.).
    - In February 2020, NTIA announced five additional States had joined the program: Nebraska, New Mexico, Michigan, Missouri and Virginia. In June 2020, NTIA announced that an additional five States had joined: Wisconsin, Colorado, Illinois, Oregon, and New Hampshire, totaling 18 States to date who are partnering on this critical broadband data platform.
- In August 2019, the **FCC** established the Digital Opportunity Data Collection, which, while meeting requirements established by the Broadband DATA Act in March 2020, will collect geospatial broadband coverage maps from fixed broadband providers. Among other benefits, the Digital Opportunity Data Collection will improve the FCC's ability to target support for broadband expansion through the FCC's Universal Service Fund programs. As the FCC gathers more granular broadband data, NTIA will integrate the data into the

NBAM for an enhanced understanding of the state of broadband availability across the country.

- The majority of Federal grants, loans, and subsidies that support broadband deployment across the country are currently managed by **USDA** and **FCC**. As such, the Agencies have instituted formal mechanisms to coordinate their programs and to ensure that scarce Federal funding is not duplicative.
    - In 2014, USDA's RUS and the FCC entered into a Memorandum of Understanding to facilitate the exchange of confidential and proprietary information between the two Agencies. Through that agreement, and on a more informal basis, the Agencies have been able to exchange information regarding policy and funding efforts to protect the integrity of their respective rural broadband support programs and maximize their reach. For example, to ensure that there was no duplicative support awarded through the FCC's CAF auction and USDA's ReConnect funding initiative, the USDA incorporated a GIS mapping layer during Round 1 of its ReConnect program that identified the boundaries of the CAF auction winners. The USDA has since worked with the FCC to ensure it reflected the most recent award winners.
    - The USDA also provided the FCC with GIS information regarding the applications received during Round 1 of ReConnect funding. Both Agencies are working to modernize and streamline the exchange of location and funding data by transitioning to the use of shape files. The FCC and USDA also coordinate prior to authorizing funds for rural broadband deployment to ensure that USDA loan and grant funds and FCC Universal Service Funds complement one another and are not being spent on projects that duplicate funding made available through other Federal programs.
    - In addition, both Agencies participate in bi-weekly meetings of the Federal Funding workstream. These ongoing coordination efforts enable the Agencies to leverage their respective areas of expertise to implement and manage broadband funding programs.

Improving coordination with State-level broadband programs

- **NTIA's** State Broadband Leaders Network (SBLN), in September 2019, provided input to the Federal Funding workstream to improve coordination between Federal programs that fund broadband and statewide efforts that support broadband expansion (see Appendix G). The workstream members reviewed the input provided by the States to determine how to incorporate into future planning efforts. In addition, NTIA facilitates monthly SBLN calls and hosts in-person meetings twice a year where participants gather to share best practices and collaborate. NTIA invites Federal colleagues to these meetings to present information about their programs and policies, which encourages direct dialogue with the States.

Promoting visibility about sources of broadband funding across the Federal Government

- In 2019, **NTIA** leveraged the data call conducted by the workstream to update the BroadbandUSA website to share the latest information on Federal broadband funding sources. Since the new funding page was launched, it has received nearly 12,000 page views, as of March 2020. NTIA's stakeholder mailing list now reaches more than 20,000 individuals in all 56 States and Territories, making Federal funding information broadly available. In April 2020, NTIA updated the funding site with FY 2020 data gathered from Agencies.
- **NTIA** launched the Minority Broadband Initiative (MBI) in November 2019 to leverage the networks and location of Historically Black Colleges and Universities (HBCUs) to expand broadband coverage to underserved communities, particularly in the rural South. The MBI will convene forums for stakeholders to explore leveraging HBCU broadband infrastructure to connect neighboring communities and promote broadband adoption strategies in those communities. In addition, the MBI will coordinate with the members of the Federal Funding workstream to identify opportunities to collaborate and bring additional Federal resources to these communities.

Federal Communications Commission actions to support broadband deployment

- On January 30, 2020, the **FCC** adopted a Report and Order that establishes the Rural Digital Opportunity Fund (RDOF) to efficiently fund the deployment of high-speed broadband networks in rural America. Through a two-phase reverse

auction mechanism, the FCC will direct up to $20.4 billion over ten years to finance speeds of up to 1 Gbps in unserved, rural areas.

  - The first phase of the RDOF – bidding for which is planned to begin on October 29, 2020 – will make up to $16 billion available to census blocks that current data show are wholly unserved with fixed broadband at speeds of at least 25/3 Mbps. The FCC estimates that approximately six million rural homes and businesses are located in areas eligible for bidding in Phase I of the auction.
  - Phase II of the program will make available at least $4.4 billion to target partially served areas in which some locations lack broadband service of at least 25/3 Mbps, based on granular, precise mapping data being developed in the FCC's Digital Opportunity Data Collection. RDOF will prioritize networks with higher speeds, greater usage allowances, and lower latency. Bidders must commit to provide a minimum speed of 25/3 Mbps, more than double the minimum required in the CAF Phase II auction, and bids will be weighted to account for higher speeds and lower latency.
  - In recognition of the unique challenges of deploying broadband to rural Tribal communities, the FCC's RDOF Report and Order, adopted January 30, 2020, established a reduced funding threshold on Tribal lands as compared to non-Tribal areas. The lower funding threshold for Tribal lands increases the number of homes and businesses in Tribal areas eligible for support and increases the amount of support those areas can receive in the auction.
  - See Appendix H for additional FCC highlights.

- In April 2020, the **FCC** adopted a Notice of Proposed Rulemaking to request comment on the establishing the 5G Fund for Rural America, which would replace the planned Mobility Fund Phase II, and proposes to make up to $9 billion in Universal Service Fund support available to carriers to deploy advanced 5G mobile wireless services in rural America.
  - The 5G Fund Notice of Proposed Rulemaking proposes to allocate this major investment in rural America through a competitive reverse auction and to target hard-to-serve areas with sparse populations and/or rugged terrain. The Notice of Proposed Rulemaking also proposes to set aside at

least $1 Billion specifically for deployments facilitating precision agriculture needs.

Awarding Federal funding to promote regional planning and deployment

- Investing in broadband infrastructure across Appalachia, a region extending from southern New York to northern Alabama and Georgia, is a key element of the **Appalachian Regional Commission (ARC)** Regional Strategic Plan. Recent data shows that over 78 percent of U.S. households have access to broadband, but only 72.3 percent of Appalachian households region-wide have the same access. In central Appalachia, the number of households with access to broadband service drops to 64.3 percent, presenting significant obstacles for economic development in these communities. In FY 2019 alone, ARC invested over $26.1 million in 48 broadband-related projects across Appalachia. One such project is the Twin Lakes – Rural Jackson County Fiber Broadband Construction Project in Tennessee, where an ARC investment of $500,000 helped finance a 51-mile fiber run expanding broadband access for nearly 450 households and nine businesses. In addition to investing in broadband implementation (both fiber and wireless), ARC has supported feasibility studies, planning grants, and numerous small-town Wi-Fi projects to help Appalachian communities compete with the digital demands of the modern global economy. Nearly half of ARC's broadband investments during FY 2019 were made via ARC's POWER Initiative to diversify the economy in the Region's coal-impacted communities. In FY 2020, ARC is committing up to $15 million through the POWER Initiative to continue broadband development.

- Broadband is recognized as an engine for economic opportunities and is frequently cited as a necessary condition for economic growth and prosperity in currently under/unserved areas. As such, the **Department of Commerce's Economic Development Administration (EDA)** continues to make broadband an eligible project under its FY 2020 Public Works and Economic Adjustment Assistance Programs Notice of Funding Opportunity and the FY 2019 Disaster Supplemental Notice of Funding Opportunity. Projects funded by these programs will support work in Opportunity Zones and will support the mission of the Department of Commerce by leading to the creation and retention of jobs and increased private investment, advancing innovation, enhancing the manufacturing capacities of regions, providing workforce development opportunities, and encouraging foreign direct investment. In FY 2019, EDA

funded 15 projects in support of these goals, totaling almost $14 million in Federal funds. The funding source for these projects includes FY 2019 base appropriations as well as disaster supplemental funding.

Awarding Federal funding to advance broadband research platforms and the development of smart cities and communities

- The **National Science Foundation (NSF)** is conducting a competition to fund a new platform under its Platforms for Advanced Wireless Research (PAWR) program, focused on rural broadband connectivity, in partnership with the USDA's National Institute of Food and Agriculture (NIFA); that platform is expected to be announced in winter 2020/2021. This request for proposals seeks to focus on applying advanced wireless technologies to transform the deployment and operations of fast, low-latency, and reliable broadband networks in rural and other low-density geographic areas in an efficient and affordable way. In this round, proposers are asked to create a testbed for experimenting with advanced wireless technologies and network architectures – combined with existing technologies – that may transform the existing broadband deployment cost curve through innovations in technologies and engineering processes.
- **NSF** also awarded the third of its PAWR platforms to the Aerial Experimentation and Research Platform for Advanced Wireless project in Raleigh, NC. The dual goals of the project are to: (i) accelerate the integration of unmanned aerial systems (UAS) into the National Airspace System through new advanced wireless capabilities; and (ii) leverage UAS to advance wireless communications.
- **NSF**'s Smart and Connected Communities (S&CC) program continues to pair multidisciplinary research with meaningful community engagement to address challenges that cities and communities across America are facing. NSF has invested more than $42 million in 52 projects over the last three years, resulting in dozens of new applications that are being put to use in local communities. Several of the NSF S&CC projects were showcased at the 2019 US Ignite Application Summit, co-located with the Smart Cities Connect Conference and Expo in Denver, CO. Earlier this year, NSF launched a related activity, the Civic Innovation Challenge (CIVIC), a research and action competition in the S&CC domain. In partnership with the U.S. Department of Energy's Vehicles Technologies Program and the U.S. Department of Homeland Security's Science and Technology Directorate, CIVIC aims to (i) flip the community-university dynamic, with communities identifying civic priorities ripe for innovation and then

partnering with researchers to address those priorities; (ii) accelerate the impact of S&CC research; and (iii) deepen cooperation and information sharing across sectors and regions. CIVIC is organized as a two-stage competition with two tracks, one centered on resilience to natural disasters, and the other on communities and mobility including research that addresses better mobility options to solve the spatial mismatch between housing affordability and jobs.

- **NSF** inaugurated a "Spectrum Innovation Initiative" (SII) in FY20 to accelerate research and development efforts towards improving spectrum efficiency and availability. Two of the focus areas of the SII are especially relevant to ABI: funding the establishment of a National Center for Wireless Research and National Radio Dynamic Zones. As scientific applications such as radio astronomy are often found in rural areas, there is a synergy with exploring the provision of broadband access to these areas at the same time that geographic test beds are funded for developing dynamic sharing and maintaining a special radio quiet environment.
- In FY20, **NSF** initiated the program, Spectrum and Wireless Innovation enabled by Future Technologies (SWIFT). The SWIFT program advances effective spectrum utilization and/or coexistence through investments in fundamental research in wireless communication hardware and algorithms/protocols. NSF plans to fund 12-16 SWIFT projects for a total of $12 million in summer 2020. The SWIFT program builds on two predecessor programs: Spectrum Efficiency, Energy Efficiency, and Security (SpecEES): Enabling Spectrum for All, a $29-million investment in 44 projects during FY17-FY19; and Enhancing Access to the Radio Spectrum (EARS), a $66-million investment in 112 projects during FY12-FY16.

Supporting digital inclusion efforts by developing best practices, supporting local advocates, and developing a better understanding of public library broadband capacity and needs

- From January 2017 through February 2018, the **Institute of Museum and Library Services (IMLS)** and the **National Digital Inclusion Alliance (NDIA)** worked on a pilot project that aimed to increase digital inclusion in the United States through local digital inclusion advocates, called the Digital Inclusion Corps. The pilot project worked with three state library agencies and two museum organizations to bolster digital inclusion initiatives in tribal and rural communities. The five corps members worked with community stakeholders,

anchor institutions, leaders, and advocates to discover local digital inclusion-related needs and advance digital inclusion projects.

    - As part of the cooperative agreement, NDIA created a Digital Inclusion Resource Library, a community-driven materials hub, where practitioners, policy-makers, librarians, and educators submit documents and slides, distribute community broadband plans, localize curricula, and share best practices.

- In April 2018, **IMLS** awarded a grant to Simmons College, New America's Open Technology Institute, and Internet2, to examine how advanced broadband measurement capabilities can support the infrastructure and services needed to respond to the digital demands of public library users across the United States. The project will gather quantitative and qualitative data from public libraries across the country to: 1) understand the broadband speeds and quality of service that public libraries receive; 2) assess how well broadband service and infrastructure are supporting their communities' digital needs; 3) understand broadband network usage and capacity; and 4) increase their knowledge of networked services and connectivity needs. The project deliverables (due by June 2020) include an open source and replicable broadband measurement platform, training manual to help public librarians use that platform, and a final report on the project.

Promoting smart cities and regions through collaborations that publish replication guides

- Since 2017, **NTIA** has partnered with the **National Institute of Standards and Technology** (**NIST)** on the Global City Teams Challenge (GCTC), a collaborative platform for the development of smart cities and communities, which enables local governments, nonprofit organizations, academic institutions, technologists, and corporations from all over the world to form project teams, or "action clusters," and "SuperClusters," to collaborate on Internet of Things and Cyber-Physical Systems applications within the city and community environment. In 2019, the Smart Agriculture and Rural SuperCluster published a Blueprint to help other communities understand how to create sustainable and adaptable rural solutions. Authors of the blueprint came from all sectors, including industry, the philanthropic sector, Federal Agencies, local and State governments, and universities. The GCTC Smart Agriculture and Rural SuperCluster held a workshop

on February 19, 2020 with NTCA - the Rural Broadband Association, which showcased innovations in smart agriculture, rural connectivity, STEM, telehealth, and public safety.

- In July 2019, **NIST**, in collaboration with **NTIA** and the National Association of Regional Councils launched the GCTC Smart Regions Collaborative with 10 inaugural regions. The goal of the GCTC Smart Regions Collaborative is to promote projects that cross jurisdictional boundaries to create efficiencies, improve sustainability, and increase quality of life for all residents. It encourages the formation of teams that span across jurisdictions, sectors, and disciplines to find ways to work together and launch, manage, or grow projects that will address issues that impact an entire region. Topics may include economic development, resiliency, sustainability, health, public safety, utilities, connectivity, agriculture, and/or mobility. The initiative will develop a blueprint to help civic leaders build their own smart region strategies.

Promoting support for broadband in Tribal lands

- On September 23-24, 2019, **DOI**, in collaboration with the **Department of Education (Education)** and **IMLS**, hosted a landmark, two-day, Tribal Broadband Summit. The event brought together Tribes, private industry, Federal Agencies, and other stakeholders to build capacity among Tribal communities and identify new opportunities for private- sector investment in broadband. DOI plans to host a 2020 Tribal Broadband Summit and is conducting outreach to Federal Agencies to identify partners and begin the planning process.
- On July 10, 2019, the **FCC** adopted a Report and Order that modernized the outdated regulatory framework for the 2.5 GHz band to make this swath of vital mid-band spectrum available for advanced service, including 5G.
    - The Order eliminated restrictions on the types of entities that can hold licenses, as well as on educational use requirements, while preserving incumbent licensees' private contractual arrangements and provisions in existing leases. Further, the Order removed limitations on leases entered into on a going-forward basis under the Commission's secondary markets rules, which will create incentives to build out in rural areas.
    - Additionally, the Order established a priority filing window for rural Tribal Nations to provide them with an opportunity to obtain unassigned 2.5 GHz spectrum to address the communications needs of their communities. The Rural Tribal Priority Window opened on Monday, February 3, 2020, and will close on Monday, August 3, 2020. The FCC's Wireless Telecommunications Bureau hosted a workshop on the Rural Tribal Priority Window on January 14, 2020. The remaining unassigned spectrum will be available for commercial use via competitive bidding following the completion of the priority filing window.
- On May 1, 2019, the **FCC** released reports on Broadband Deployment in Indian Country and Promoting Broadband Internet Access Service for Veterans.

Launching a Task Force on Precision Agriculture

- On June 17, 2019, the **FCC** announced the formation of the Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States (the Precision Agriculture Task Force). **USDA** consulted with the FCC on the establishment of the Task Force, which met in December 2019 for the first time. At the meeting, USDA shared information about its broadband and cropland mapping tools. USDA also gave a presentation on "A Case for Rural Broadband: Insights on Rural Broadband Infrastructure and Next Generation Precision Agriculture Technologies" and discussed recent USDA efforts to obtain better data concerning precision agriculture needs and uses. In March 2020, FCC Chairman Pai announced his appointment of working group members for the Task Force and the Task Force held its second meeting.

Incentivizing private sector investments in broadband

- On January 9, 2020, the **Treasury Department's Office of the Comptroller of the Currency (OCC)** and the **Federal Deposit Insurance Corporation (FDIC)** proposed revisions to the Community Reinvestment Act (CRA) regulations that would explicitly identify essential infrastructure, which includes telecommunications infrastructure such as broadband, as a qualifying community development activity.
    - On May 20, 2020, the Treasury Department's Office of the Comptroller of the Currency (OCC) finalized revisions to the CRA regulations that explicitly identifies essential infrastructure, which includes telecommunications infrastructure such as broadband, as a qualifying community development activity. The rule change will incent greater investments in broadband infrastructure by banks supervised by the OCC. The illustrative list of CRA-qualifying activity examples that accompanied the final CRA rule identifies an investment in "broadband infrastructure" to expand access to low- and moderate-income (LMI) individuals or communities, distressed areas, underserved areas, disaster areas, or Indian country, as an example of essential infrastructure that qualifies as a community development activity under section 25.04(c)(6) of the final rule. In addition, if a bank engages in a community development investment in this essential infrastructure, the dollar value of the investment would be multiplied by two for the purposes of determining value of the bank's qualifying activities (see section 25.08(b)) when conducting a bank's CRA evaluation.

- In December 2019, the **Treasury Department (Treasury)** released final guidance related to the Opportunity Zone tax incentive. Opportunity Zones were created by the Tax Cuts and Jobs Act (TCJA) of 2017. An Opportunity Zone is an economically distressed community where new investments, under certain conditions, may receive preferential tax treatment. Through the establishment of Qualified Opportunity Funds (QOFs), private investors have the potential to defer tax on earlier capital gains by investing the amount of those gains in a QOF, and to eliminate tax on future capital gains in the QOF investment. The QOF, in turn, invests those funds in projects located in Opportunity Zones. QOFs may be an effective vehicle for infrastructure investments like broadband expansion.
- In 2019, **Treasury's Community Development Financial Institutions Fund (CDFI)** supported broadband projects through its New Markets Tax Credit (NMTC) program. Through the NMTC Program, the CDFI Fund allocates tax credit authority to Community Development Entities (CDEs) through a competitive application process. CDEs are financial intermediaries through which private capital flows from an investor to a qualified business located in a low-income community. CDEs use their authority to offer tax credits to investors in exchange for equity in the CDE. Using the capital from these equity investments, CDEs make loans and investments to businesses operating in low-income communities. Past NMTC investments have included the financing of broadband infrastructure.

Training students to conduct broadband planning in rural Alabama

- **NTIA**, in partnership with the **Environmental Protection Agency's (EPA)** (Region IV) College Underserved Community Partnership Program (CUPP), established a broadband training pilot program with the University of West Alabama (UWA). Through this partnership, NTIA conducted a two-day seminar in October 2019 to train students on broadband planning and, in turn, over the course of the semester, UWA's academic staff and students drafted a comprehensive Rural Broadband Plan for the cities of Livingston and York, Alabama.

Promoting apprenticeships to support the telecommunications industry

- On February 18, 2020, the **Department of Labor (DOL)** announced a $6 million Apprenticeships: Closing the Skills Gap grant to the Wireless Infrastructure Association (WIA) to support the Telecommunications Industry Registered

Apprenticeship Program (TIRAP), a public/private partnership between telecommunications companies, industry associations, and colleges that develops credentialed apprenticeship programs available to qualified employers for career development of the telecommunications workforce.

Releasing detailed Census Data on Broadband Adoption and promoting online response options for the decennial census

- The **U.S. Census Bureau** released new American Community Survey (ACS) data in December 2018 on computer and Internet usage that was statistically valid at the census block group and tract level. This data collection and release will continue on an annual basis. In addition, the 2020 Census will, for the first time, include a widespread online response option. Nearly every household will receive an invitation to respond to the census online.

Promoting the collection of data about technology access and broadband

- **Education** included new questions that will measure equity in technology access as part of the Civil Rights Data Collection (CRDC) for the first time in the spring of 2019. The 2017-2018 CRDC Data Collection survey included optional questions on Internet and device access. The 2019-2020 CRDC Data Collection will require these questions for the first time. The 2019-2020 CRDC data will be publicly released in spring 2022.

Promoting public-private partnerships to expand broadband telehealth access and adoption for veterans

- The **Department of Veterans Affairs (VA)** announced partnerships with the private sector in December 2018 to expand home broadband access and adoption for veterans, and to encourage the use of telehealth apps by promoting "zero-rating" of their use. "Zero-rating" policies allow customers to use certain applications without contributing to data usage limits.
- The **VA's Veterans Health Administration (VHA)** is also working with Microsoft to pilot new technology that delivers broadband Internet access to more rural places, with a memorandum of agreement signed in April 2019 outlining plans to collaborate. Additional links highlighting these partnerships include:
    - https://www.militarytimes.com/news/2018/12/07/online-va-medical-appointments-expanding-to-walmart-sites-vfw-posts/

- https://www.blogs.va.gov/VAntage/64675/project-atlas-creates-better-access-to-care-for-veterans/
- https://www.youtube.com/watch?v=ItS_6rLsLx8&feature=youtu.be
- https://www.blogs.va.gov/VAntage/69273/va-walmart-open-telehealth-locations-serve-veterans-rural-areas/

CONCLUSION

This progress report fulfills a commitment made in the Milestones Report to provide periodic updates of the ABI's status. Many of the actions included in the report had already been made public by the Agencies, but have not been captured in a single document. It is our hope that this comprehensive update will be useful to broadband stakeholders in the public and private sectors as they monitor our work and look for opportunities to leverage the work of and partner with the Federal Government.

The Trump Administration is committed to improving America's broadband infrastructure, which is vital to our country's competitiveness and quality of life. We will continue to coordinate Federal efforts to encourage private investment toward closing the digital divide for all Americans. We will also work to track the progress of the Federal Agencies and provide updates to the public as part of our commitment to transparency and accountability.