Implementation Plan for Telework Opportunities in Bristol Bay

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Prepared for

Bristol Bay Native Association

by | information insights

Project Partners



Sponsored by

the Denali Commission

Table of Contents

Executive Summary

In 2022, Bristol Bay Native Association contracted with Information Insights to conduct a six-part study looking at global and regional telecommute job opportunities once Bristol Bay communities have access to reliable internet. The goal of the study is to provide a roadmap for transitioning, training, and growing remote work in the Bristol Bay region.

Bristol Bay is a region full of multiple organizations working towards a healthy and robust local and regional workforce, but with historically limited broadband infrastructure deployment in the region, understaffing and outmigration are a continual challenge. With the disruption of the pandemic, the region enacted and realized that remote work 1. was possible (pending internet access), 2. could be a solution to the disconnect between Bristol Bay's available labor pool and employment opportunities and 3. enable residents to remain in their home communities in the region. Telecommuting is currently prominent in certain positions and organizations in the Bristol Bay region due to impacts and lessons learned since the beginning of the COVID-19 pandemic. In a region where job seekers face a variety of barriers to employment from geographic remoteness and a high cost of living, to a lack of elder and child care, this flexibility will be particularly impactful.

With recent federal funding to support expanding broadband networks nationally, higher quality and more reliable internet is predicted to become a norm within this generation. The goal for this plan is to summarize insight and guidance from organizations to adopt broadband and telecommute jobs cohesively. While some of these action steps could be taken on an individual organizational level, access to reliable and high quality telecommunications infrastructure needs to increase, the average digital skills in the region need to increase, and the region needs to transition organizational structures to accommodate telecommute work.
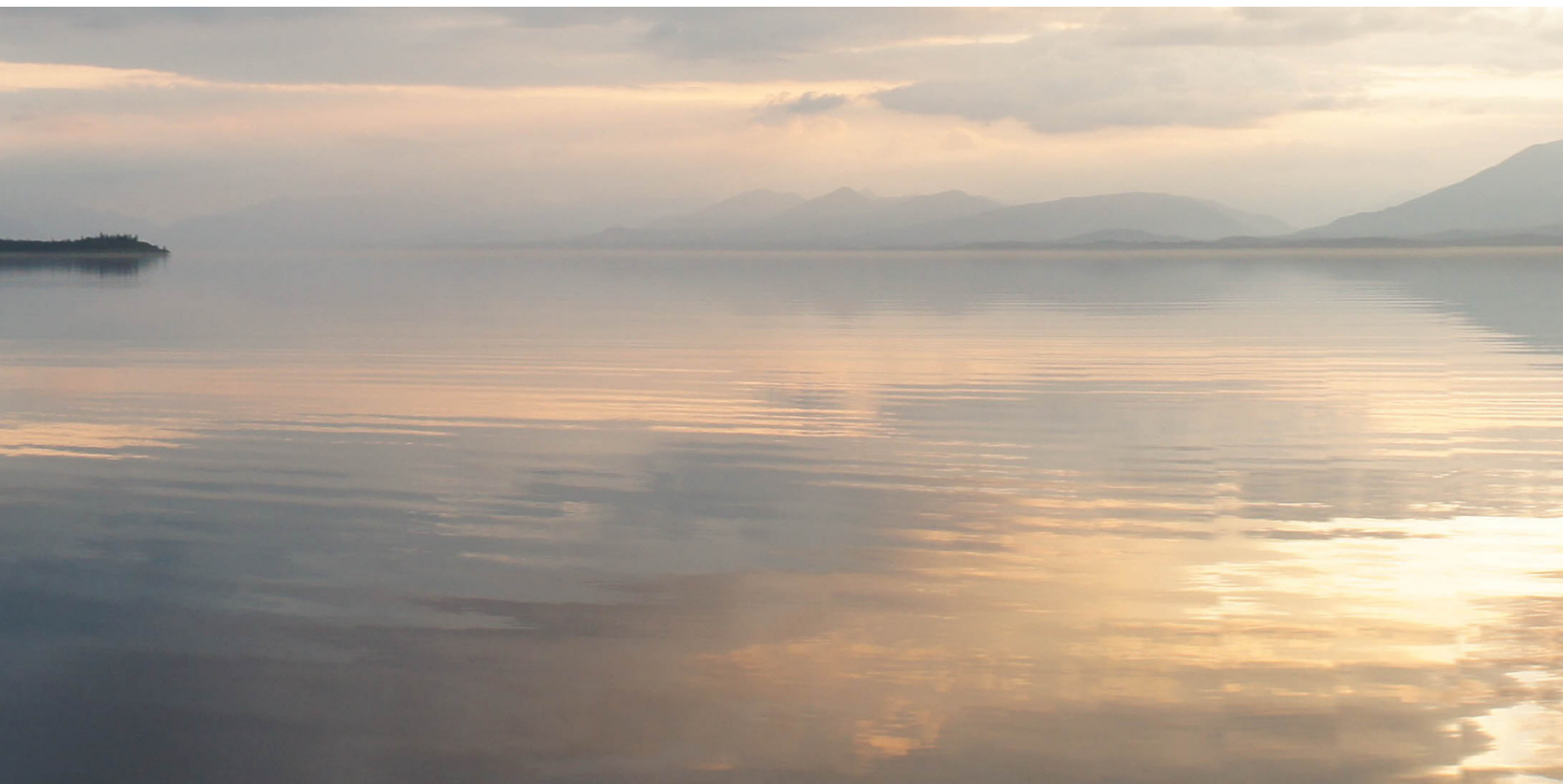
Previous Implementation Plan Study Components

Global Virtual Jobs Assessment: The purpose was to establish a general baseline of occupations and career paths that have the highest potential for remote work to help inform the training and education efforts of regional workforce development stakeholders. This assessment lays the groundwork for further inquiry into remote work capacity in the Bristol Bay Region by summarizing existing research on the classification of remote-ready positions and collecting information necessary to gauge remote occupational growth and training needs.

Remote Workforce Development Needs Assessment: The purpose of this assessment is an inventory of regional assets (organizations trying to fill the gap in digital skill training in the Bristol Bay region) and calls for action and need in the same digital skill space. Initial recommendations focused on workforce development outline possibilities for future programs to support remote work in Bristol Bay.

Remote Work Opportunity Assessment: The purpose of the study was to gauge the possibility of remote work being a norm in the region and where there is opportunity and barriers to doing so. The vision for remote work in the Bristol Bay region according to interviewees, is a workplace that aligns with local flexibility norms (including subsistence leave), retains some in-person engagement (such as quarterly events), and emphasizes employee support.

Remote Work Readiness: Case Studies in Chignik Lagoon, Kokhanok, and New Stuyahok: The purpose was to conduct an in-depth assessment of three specific communities at the Bristol Bay subregion level to assess what communities will need to expand their workforce into remote work

Southwest Alaska Long-haul Microwave and Optical Network (SALMONet) Job Opportunity Evaluation: The purpose of this study was to conduct research to figure what other organizations and industry leaders are doing in regards to workforce, both training and employment, practices for broadband networks within Alaska. This research was conducted via interviews and offered insight to potential training programs to be utilized, as well as structures for employment that have worked on the North Slope. The interview with Arctic Slope Telephone Association Cooperative (ASTAC) served as a case study for this report.

Primary Barriers to Telecommute Work & Broadband Adoption

1. Lack of Broadband Availability & Accessibility

a. **Slow and Unreliable Internet Speeds:** Prevents employers from considering transition to telecommute work (as does the need for in person support staff), and impacts potential employees' desire to live and work in the region.[1, 2, 3, 4]

b. **Poor Mobile and landline infrastructure:** Cell service is unreliable and data is slow and expensive. Phone calls are restricted by weather patterns and limited coverage.[4]

c. **High Internet Costs:** While the baseline cost for limited data and poor internet in Bristol Bay is between $300 to $400 on average, residents who must go over their limited data plan (which is common), see bills closer to $1200 a month. [3, 4]

d. **Lack of regional IT support personnel:** Many organizations do not have the staff to provide IT support to their own staff. There is currently one person servicing the whole Dillingham Census Area. [1, 3, 4]

2. Uneven Broadband Deployment & Community Participation

a. **Understaffing:** Many organizations are understaffed, leading to employees taking on multiple jobs and requiring more support to develop and lead a regional approach to the telecommute job transition. [2, 3, 4]

b. **Limited Child and Elder Care resources:** Identified by Bristol Bay residents as one of the top barriers to applying for jobs. Flexibility with employees engaging in kin care is necessary to keep these employees supported and productive. Offering this option will only become more critical as the population ages. [2, 3, 4]

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1 Information Insights, "Bristol Bay Remote Work Opportunity Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/01/Bristol-Bay-Remote-Work-Opportunity-Assessment-Final.pdf

2 Information Insights, "Bristol Bay Workforce Snapshot," Bristol Bay Native Corporation, 2022, https://bbna.com/wp-content/uploads/2022/05/BBNC-Workforce-Development-Report-2022-small.pdf

3 Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

4 Information Insights, "Remote Work Readiness: Case Studies in Chignik Lagoon, Kokhanok & New Stuyahok," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Community-Case-Studies-Report_Reduced-2.pdf

3 Lack of access to digital tools

a. Technology & Equipment: A significant barrier expressed by employers in Bristol Bay is the lack of access to funding that can be used to procure (often) high-cost tech supplies needed for telecommute work. Fifty percent or less of homes have access to a computer. [1, 3, 4]

b. Overcrowding in homes: This makes it challenging to expect individual employees to have a space within their home to telecommute. [4]

c. Lack of available and affordable housing is a limiting factor when attracting new talent to the region. Telecommute work has the potential to lighten the burden of moving to a community with high costs and limited affordable housing. Instead, enabling residents to use and expand their community support networks and communities to invest in housing, energy, and more. Telecommute work offers a way to center community investment without requiring the influx of new business or industry (extractive or otherwise), allowing people to work from communities they already live in, instead of uprooting and facing the lack of housing access in another area.

4 Evolving digital education requirements

a. Significant numbers of positions in the region appear to be challenging to transition to telecommute work: An estimated 50-60 percent of positions have a lower feasibility of telecommute work, such as skilled trades, transportation, utilities, fishing, manufacturing, hospitality, healthcare, and food service. [1, 2, 5]

b. Digital skills are not uniform across Bristol Bay: Around 50% of people interviewed felt confident in their ability to access and use online platforms. Young people report confidence in digital skills more frequently than older individuals. Some communities experienced a fully telecommute work environment during the pandemic and others didn't. This has resulted in uneven adoption of telecommute work across the region. [4]

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[2] Information Insights, "Bristol Bay Workforce Snapshot," Bristol Bay Native Corporation, 2022, https://bbna.com/wp-content/uploads/2022/05/BBNC-Workforce-Development-Report-2022-small.pdf

[3] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

[4] Information Insights, "Remote Work Readiness: Case Studies in Chignik Lagoon, Kokhanok & New Stuyahok," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Community-Case-Studies-Report_Reduced-2.pdf

[5] Information Insights, "Global Virtual Jobs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2022/08/Global-Virtual-Jobs-Assessment_Reduced.pdf

c. **Misalignment between required experience and available workforce:** Employers identified challenges around filling positions with qualified applicants across industry and subregions. Two common factors noted are the lack of applicants and applicants without the required skills / certifications / experience for the open positions. As telecommute positions become possible, there could be a wider, more diverse, workforce that would be utilized to fill these positions. This includes providing access to disabled workers. [1, 2, 3, 4]

d. **Limited jobs in residents' home communities:** There are far fewer jobs offered in communities outside of the regional and subregional hubs. One of the attractions of telecommute work positions in the Bristol Bay region is to offer employment to Bristol Bay residents who want to remain in their home communities. Access to living wage jobs is one of the largest reasons the region is facing out-migration, especially in its most remote villages. [2, 6]

e. **Bristol Bay demographic changes impact local hiring of workers.** Twenty-five percent of the population is currently too young to work and outmigration of residents is concentrated in working age people, ages 16 to 24 and 35 to 55. [2]

f. **Difficult to Access Training:** Residents and employers reported difficulty accessing training of all kinds in the Bristol Bay Region. For both, the challenges to accessing training are the expense of out of region training and, when in region, the difficulty of reaching a training location. [2, 4]

g. **Telecommute work is geared toward positions requiring a higher level of formal preparation**, often requiring a Bachelor's degree or higher or several years of experience. The positions that are available to telecommute workers are primarily in middle and executive leadership,- which make up a smaller number of positions at each organization. This also has the potential to exclude a significant portion of the Bristol Bay population, of whom approximately 23 percent have a Bachelor's degree or higher. A large percentage of telecommute positions in the Bristol Bay region reside in Business/Financial Operations, and Management. [1, 5]

Implementation Plan

Priority 1: Connectivity Infrastructure

Objective 1.1 - *Pre Fiber Build-Out:* Monitor and Secure Funding Opportunities

- *Action 1.1.1 -* **Prioritize funding for broadband infrastructure**: Organizations and employers with the resources must apply for federal funding available for broadband infrastructure and advocate for the State of Alaska to assist in meeting these needs.[1]

- *Action 1.1.2 -* **Line-up funding for operations and maintenance:** Without substantial federal funding & support for maintenance and operation costs, the creation of a cooperative like ASTAC, would not be as extensive or successful. [2]

- *Action 1.1.3 -* **Utilize the FCC 2.5Ghz Tribal Spectrum:** The FCC 2.5Ghz Tribal Spectrum is available to all federally recognized tribes and Alaska Native villages.[3]
  Proposed Deliverables:
  - Funding or in-kind resources and begin implementation [1,4]

Objective 1.2 - *Pre Fiber Build-Out:* Develop workforce pathways to support infrastructure expansion

- *Action 1.2.1 -* **Build on ASTAC mentorship approach** (partnership between training/educational institution and telecoms organization) to develop necessary job training and re-training for pre-construction, construction, and post-construction occupations.[2]

- *Action 1.2.2 -* **Develop guidelines that require all outside contractors to train local, entry level technicians** in targeted telecommunications skills while performing installation work, developing a sustainable transition to local expertise.[2]

- **Action 1.2.3 - Employ Community Representatives** to maintain clear lines of communication between network providers, troubleshooting technicians, and residents.[1]

[1] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

[2] Information Insights, "Southwest Alaska Long-haul Microwave and Optical Network (SALMONet) Job Opportunity Evaluation," Bristol Bay Native Association, 2023, https://bbna.com/wp-content/uploads/2023/08/SALMONet-Job-Opportunity-Evaluation_Reduced.pdf

[3] Information Insights, "Remote Work Readiness: Case Studies in Chignik Lagoon, Kokhanok & New Stuyahok," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Community-Case-Studies-Report_Reduced-2.pdf

[4] Information Insights, "Global Virtual Jobs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2022/08/Global-Virtual-Jobs-Assessment_Reduced.pdf

- *Action 1.2.4 -* **Leverage key employer/anchor institution partnerships to train and establish more IT & cybersecurity support professionals in the region.** Experiment with employment structures that allow IT service professionals based in one community to provide information and network service to residents in a much wider geographic area. These positions would also be able to manage data security systems for employers in Bristol Bay.
  Outcomes:
  - BBNC IT apprenticeship development
  - BBNA Workforce Development Department working on building digital equity and cybersecurity skills as of Nov 2023

- *Action 1.2.5 -* **Expand and incentivize enrollment in telecommunication certification programs** [1]

Objective 1.3 - *During Fiber Build-Out:* Explore and Implement Mid-Term Broadband Solutions

- *Action 1.3.1 -* **Evaluate year-round effectiveness and viability of LEO satellite internet service in Bristol Bay**: Low Earth Orbiting (LEO) satellite services are being used as a near to mid-term broadband solution that allows tribes to utilize LEO technology, such as OneWeb and Starlink, to gain broadband access, quickly, to serve the internet needs of the communities. Starlink is still in its early stages, but it has already proved to be a "game-changer" in rural Alaska. It offers internet speeds of up to 150 Mbps and low latency, meaning Alaskans can now access the same services, applications, and websites available to the rest of the world. Individual residents have started purchasing internet service through Starlink and OneWeb, though the effectiveness of LEOs in the region has yet to be tested through the winter months. [2]

[1] Information Insights, "Southwest Alaska Long-haul Microwave and Optical Network (SALMONet) Job Opportunity Evaluation," Bristol Bay Native Association, 2023, https://bbna.com/wp-content/uploads/2023/08/SALMONet-Job-Opportunity-Evaluation_Reduced.pdf

[2] Information Insights, "Remote Work Readiness: Case Studies in Chignik Lagoon, Kokhanok & New Stuyahok," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Community-Case-Studies-Report_Reduced-2.pdf

Objective 2.1 - *Pre Fiber Build Out:* **Deepen regional coordination and planning efforts:** Bristol Bay organizations recognize the importance of sharing resources and avoiding duplication of efforts. A full region approach to supporting telecommute work is the ideal way to move forward.

- *Action 2.1.1* - **Employ sub-regional Workforce Development Coordinators** to build relationships with local community organizations, employers (local and statewide telecommute), educational groups, and other stakeholders and serve as a representative on committees as needed.
  Outcomes:
  - Secured venues in Bristol Bay communities for skill building sessions to be held in-person and instruct at least one digital skills orientation session, two workforce development orientations and one micro credential per month.
  - Regional schedule (times, locations, assign instructors) for sessions that meet the needs of participants throughout Bristol Bay/specific subregions.
  - Database of attendees and directory of courses, employment opportunities, funding opportunities, and telecommute work resources in a listserv and/or on social media.

- *Action 2.1.2* - Collaborate on and support community and organizational-level equipment and infrastructure build-out. Specifically, identify at least one organization per community to lead in each sub region, assign staff and resources for procurement and set-up of spaces.
- *Action 2.1.3* - **Seek guidance and input from employees in decision making:** prioritize offering telecommute work in a way that fits into your culture and needs.

Objective 2.2 - *Pre Fiber Build Out:* **Amplify community involvement in Digital Equity Planning processes.** Next steps will be determined through the planning process and may include a recurring/dedicated annual or biannual meeting to assess existing actions and identify additional actions.

- *Action 2.2.1* - **Develop Digital Equity Framework:** Support already funded visioning session (Convening 1-2 representative from each community for 2-3 days, to develop a framework and methods for engagement on digital equity efforts) with additional staff resources, pre-work (interviews or short survey of expected participants, travel costs for all participants, and satellite visioning sessions in 2 to 5 communities (if unable to send representatives).

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- *Action 2.2.2* - **Convene and support a Steering Committee**, whose activities include (bi/monthly team meetings, coordinate with the state broadband office, regional and state workforce development agencies, and keep the efforts to the timeline, approve public involvement plan, prioritize needs and opportunities as they arise, etc.)

- *Action 2.2.3* - **Establish 4-6 resident led working groups** (as guided by Steering Committee) and provide logistical, administrative, and as needed technical support.

- *Action 2.2.4* - **Support collaboration and stakeholder engagement.** This includes implementing coordination and outreach strategies to ensure Free, Prior and Informed Consent from communities.
    - Create opportunities for public comment, collaboration, and ongoing engagement
    - Hold Community and regional meetings, not less than two in person meetings with each of the 31 Tribes in the Bristol Bay region.

- *Action 2.2.5* - **Develop Implementation Strategies (Regional Digital Equity Plan)** - what can be done, identify objectives, metrics, and goals

- *Action 2.2.6* - **Design and put in place accountability structures**

- *Action 2.2.7* - **Sustainability - funding, collaborations, etc.**

Objective 2.3 - *Pre Fiber Build Out:* **Gather and share lessons, data and calls to action.**

- *Action 2.3.1* - **Maintain clear lines of communication and knowledge-sharing between stakeholders:** Share the processes, plans, timelines, and work being done., keeping communities informed and growing trust in the organizations contributing. Additional information about the benefits, structure, processes, and potential of telecommute work should be prepared and readily available for all regional entities looking to address this culture shift or conduct further research on the feasibility for their organization, village, sub region to embark upon this new kind of employment. [1]

- *Action 2.3.2* - **Establish policies and procedures that support telecommute work** including communication protocols, performance expectations, and security measures, can help to ensure a successful telecommute work program. This could be developed by each employer separately or with the recommendation of 1.) a cross-regional and employer working group to draft policies that all employers can agree upon or choose from and / or 2.) one or two employers drafting policy changes, sharing it with others, and every employer adjusting the policies for their work environment norms and culture. [1]

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[1] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

- These policies should address: communication expectations, working hours and schedule (identifying where there is flexibility for kin care), confidentiality guidelines, potential tools to utilize, why tribes should embrace telecommute work (to increase buy-in), and training processes and offerings. [1]

- *Action 2.3.3* - **Assess organizational policies and and resources in place now or in need of change** to offer more telecommute work opportunities. [1]

Objective 2.4 *- During Fiber Build Out:* **Coordinate telecommute work positions & resources**

- *Action 2.4.1* - **Assess opportunities for hybrid or fully telecommute employment programs and job placement.**
  Outcomes:
  - Hire telecommute work specialists - contract or permanent[1]
  - Implement/require a % of jobs that need to have in region employees, after a certain amount of time it could be opened up to outside of region and in state, etc.

- *Action 2.4.2* - **Create a region wide telecommute job board** available to everybody who lives in the region, where posts consist of positions available with detail on location, option for telecommute work, and anticipated internet speed and equipment needed to fulfill the job requirements remotely.
  Outcomes:
  - Organization selected to host job board and provide staff resources to maintain board postings

- *Action 2.4.3* - **Build a telecommute work clearinghouse for remote work resources**. Providing cross-regional access to updated best practices and technologies for digital skill training and telecommute jobs.
  Outcomes:
  - Web host and staff resources to update clearinghouse.
  - Funds allocated for continued management of telecommute work policies & procedures
  - Adapted telecommute work policies to employ best practices for keeping a strong work culture in a hybrid environment such as: modified onboarding processes focused on employee engagement, revised HR policies to include policy on subsistence leave (if not already included), and referral / incentive programs to attract workers to the region.
  - Clearinghouse and job board usage data

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[1] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

Objective 3.1 - *Pre Fiber Build Out:* **Every Bristol Bay household has access to affordable, high quality devices to connect.**

- *Action 3.1.1* - **Conduct regional inventory of available equipment and workspaces:** Focus on both existing equipment and infrastructure that can be repurposed for telecommute work needs and organizations with the staff and ability to apply for grants or raise money to increase the inventory. Agency partnerships will be key in making this process as efficient and cost effective as possible - region, federal or state funding is vital. Working with organizations and businesses who refurbish and recycle could be a more affordable option since outdated or damaged equipment could be used for training IT positions.[1, 2]
  Outcomes:
    - Inventory updated on an annual basis; identifies and tracks equipment in need of updates or replacement.
    - Repair & replacement fund for equipment

- *Action 3.1.2* - **Leverage existing programs and relationships**: Utilize the FCC's Affordable Connectivity Program and / or public-private partnerships to expand access to devices. Created by the Bipartisan Infrastructure Law, the Affordable Connectivity Program provides a discount of up to $75 per month on internet bills for households on Tribal lands (or a discount of up to $30/month for other households), as well as a one-time $100 discount on a connected device. Households are eligible if they earn 200 percent of the Federal Poverty Guidelines or less (currently $55,500 for a family of four) or if they already participate in certain federal programs, including a wide range of Tribal assistance programs. Specifically, households participating in Bureau of Indian Affairs General Assistance, Tribal Head Start (if the household meets the relevant income qualifying standard), Tribal Temporary Assistance for Needy Families (TANF), and the Food Distribution Program on Indian Reservations. Households can check their eligibility, find a fully-covered plan, and sign up at GetInternet.gov. [3]

Objective 3.2 - *During Fiber Build Out:* **All Bristol Bay residents have access to an adequate workspace to comfortably engage in telecommute work and education.**

- *Action 3.2.1* - **Pursue funding for community workspaces and computer labs** [1, 2]

- *Actions 3.2.2* - **Repurpose and renovate buildings to fit community telecommute work needs** [3]

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[1] Information Insights, "Global Virtual Jobs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2022/08/Global-Virtual-Jobs-Assessment_Reduced.pdf

[2] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

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Priority 4: Digital Skills

Objective 4.1 - *During Fiber Build Out:* **All Bristol Bay residents have access to employment suited to their interests, skills, and qualifications, regardless of their geographic location.**

- *Action 4.1.1 - Prepare and secure dedicated funds for training and skill offerings:* Funding for the expansion of or adaptation of programs like the Bristol Bay Native Corporation (BBNC) Caliaq Grant Youth Internship project will be essential to growing local expertise and career opportunities for the community's youth. In 2022, BBNA received a 5 year grant from Department of Education Demonstration Grants for Native Youth Community Program in partnership with Bristol Bay Native Corporation (BBNC), in partnership with the Lake and Peninsula School District (LPSD), Bristol Bay Borough School District (BBBSD), Dillingham City School District (DCSD), Southwest Region School District (SWRSD) and the Bristol Bay Regional Career and Technical Education program (BBRCTE). Of the 1,600 students enrolled, this project will directly impact 160 11th and 12th graders annually with internship opportunities and over 800 6th through 12th graders with college-and career-readiness skills. Arctic tern program for youth employment.

Objective 4.2 - *Pre Fiber Build Out:* **All Bristol Bay residents have the skills and knowledge required for living, learning and working in a digital society.**

- *Action 4.2.1 -* **Utilize the AFN Digital Navigator program** as much as possible: The digital navigators exist to increase the digital skills in Alaska Native communities from connectivity challenges to device navigation.[1]
  Outcomes:
  - Open access to training and professional development opportunities[2]
  - Digital skills gaps are addressed, regional employment in telecommute-ready industries increases
  - New programs provided by Adult Education Program at UAF Bristol Bay campus, SAVEC, AVTEC, or Alaska Job Center Network
  - Regional workforce development organizations engage with schools, employers, and communities to develop learning curriculums and expand vocational and post-secondary education They also offer scholarships, reimbursements, and funding to support individuals and their learning goals.[1]
  - Business trainings developed on data security and cloud operations: Each organization needs to make the decision about whether to house data in an on-premise or cloud-based solution, keeping telecommute work potential in mind. Regular assessment of security and updates/changes to cloud platforms should be made.

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[1] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

[2] Information Insights, "Bristol Bay Workforce Snapshot," Bristol Bay Native Corporation, 2022, https://bbna.com/wp-content/uploads/2022/05/BBNC-Workforce-Development-Report-2022-small.pdf

- *Action 4.2.3. - **Invest in holistic training models and vocational training for 6-12th grade students**. The Global Virtual Jobs Assessment can be used to reference potential telecommute occupational growth areas by industry. School districts can employ technology liaisons. [1]

- *Action 4.2.4 - **Conduct cross generational training programs**: As youth continue to grow up in a world requiring digital skills in everyday life, they are a great resource to utilize in increasing the digital skills throughout Bristol Bay. Welcoming their knowledge as trainers for an Elders and youth digital skills training program, would allow for cross generational relationships to grow, youths' teaching, communication, and digital skills to increase, and Elders ability to navigate in the ever changing digital world, to increase as well as their relationship with youth in the community. [2]
  Outcomes:
  - Elder & Youth Digital Skills Program launch
  - Broadband BootCamp held in the region

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[1] Information Insights, "Bristol Bay Workforce Snapshot," Bristol Bay Native Corporation, 2022, https://bbna.com/wp-content/uploads/2022/05/BBNC-Workforce-Development-Report-2022-small.pdf

[2] Information Insights, "Bristol Bay Remote Workforce Development Needs Assessment," Bristol Bay Native Association, 2022, https://bbna.com/wp-content/uploads/2023/08/Workforce-Development-Needs-Assessment_Reduced.pdf

Appendix A: Grant Funded Infrastructure & Planning Projects

USDA ReConnect

Applicant: Bristol Bay Telephone Cooperative, Inc	Project Priority: Last Mile Infrastructure Deployment	Amount: $34,885,420

Description: This investment will be used to deploy a fiber-to-the-premises network. This network will connect 844 people, 22 businesses and seven public schools to high-speed internet in Bristol Bay Borough, Dillingham Census Area, Lake Borough, and Peninsula Borough in Alaska. Bristol Bay Telephone Cooperative Inc. will make high-speed internet affordable by participating in the Federal Communications Commission's Affordable Connectivity Program and Lifeline Program. Eligible households receive discounts for broadband services in tribal entities and one-time discounts toward the purchase of a computer or tablet.

Communities Served: Unserved Households Connected: 269
Bristol Bay Communities Included: New Stuyahok, Levelock, King Salmon, New Koliganek, Naknek, South Naknek, and Ekwok Alaska Native Village Statistical Areas

USDOC - NTIA: Tribal Broadband Connectivity Program

Applicant: Alaska Federation of Natives (AFN) Broadband Use and Adoption Consortium	Project Priority: Coordination & Adoption	Amount: $35,102,141

Description: This project proposes a consortium consisting of 73 Alaska Native Tribal governments, Alaska Native Corporations (ANCs), and tribal organizations to reduce barriers to broadband usage among Native Alaskans by providing broadband-enabled devices, subsidizing broadband service, and implementing digital skills and workforce training. It will also seek to improve health care access among tribal communities by equipping Alaska tribal health partners with the equipment and training needed to offer telehealth services.

Communities Served: Unserved Households Connected: 2,777
Bristol Bay Communities Included: Ekuk, Portage Creek, Chignik Bay, Chignik Lagoon, Egegik, Ekwok, Igiugig, Iliamna, Kokhanok, Koliganek, Pedro Bay, Pilot Point, South Naknek, Ugashik

Applicant: Choggiung Limited & NETC	Project Priority: Middle Mile and Last Mile Infrastructure Deployment	Amount: $29,532,501

Description: The project proposes to install fiber to directly connect 944 unserved Alaska Native households with 100 Mbps symmetrical fiber to home service. The project includes the construction of a 77-mile middle-mile fiber network originating in Levelock and extending to the Dillingham/Aleknagik service area, and the installation of a 40-mile last-mile network. This project will provide access to high-speed, affordable broadband for shareholders of Choggiung, Ltd. Nushagak Electric & Telephone Cooperative, Inc. will design and operate the proposed middle and last mile networks.

Communities Served: Unserved Households Connected: 944
Bristol Bay Communities Included: Aleknagik, Dillingham, Manokotak, Clarks Point, Ekuk, Portage Creek

Applicant: Igiugig Village - Southwest Alaska Long-haul and Optical Network (SALMONet)	Project Priority: Coordination & Adoption	Amount: $8,000,000

Description: This project will allow SALMONet to hire experienced engineering, planning, and facilitation consultants to complete in depth feasibility studies, last-mile design, and construction cost estimates. Throughout the feasibility and design process, expert community planners and facilitators will gather stakeholder input to inform the plan and future grant applications. We will consult with financial experts to create a sustainable business plan for the tribally owned network. Extensive planning, community engagement, and regulatory compliance to ensure limited environmental impact across sensitive habitats will be required. The funding provided by NTIA will be used to complete the planning, design, stakeholder engagement, permitting, and NEPA process necessary for a shovel-ready project to serve 16 native Alaskan communities in Bristol Bay with high-speed, affordable broadband.

Communities Served: Unserved Households Connected: 543
Bristol Bay Communities Included: Chignik Lake, King Salmon, Levelock, Naknek, New Stuyahok, Newhalen, Nondalton, Port Alsworth, Port Heiden, Chignik Bay, Chignik Lagoon, Egegik, Ekwok, Igiugig, Iliamna, Kokhanok, Koliganek, Pedro Bay, Pilot Point, South Naknek, Ugashik

Applicant: Village of Clarks Point	Project Priority: Device Access	Amount: $500,000

Description: The project is designed to provide all tribal members who have been negatively impacted by COVID-19 with access to technology and Internet services at zero cost in order to combat social isolation, promote telework, bring remote access to college/training courses, and provide access to medical care from within the home. All Tribal members may apply for the program by providing verification of Tribal member status and self-certifying that they were negatively impacted by COVID-19. The project proposes the establishment of a program and process to promote broadband adoption activities, telehealth, distance learning, digital inclusion efforts, and the expansion of affordable broadband programs.

Communities Served: Unserved Households Connected: 24
Bristol Bay Communities Included: Clarks Point

Applicant: Native Village of Port Lions & GCI	Project Priority: Middle Mile and Last Mile Infrastructure Deployment	Amount: $29,336,431

Description: The Broadband Infrastructure Deployment project proposes to install fiber directly connecting 930 unserved Native American households, as well as businesses and anchor institutions, with qualifying broadband service 1 Gbps symmetrical speeds. The project proposes the following activities designed to improve access to, and use of, broadband services among Tribal members: Extend the current AU-Aleutians fiber optic network project using a redundant, bidirectional design to ensure service continuity. Install additional submarine fiber (avoiding fishing grounds) and terrestrial fiber to 5 more Tribal communities including: Native Village of Port Lions; False Pass; Ouzinkie; Chignik Lagoon; and Chignik Lake. Provide FTTP connecting households, businesses, and communities. Construct backbone shelters with redundant HVAC and DC power systems to provide long-term backup power. Partnering with Kodiak College to provide workforce training, continuing education, and traditional degrees and certificates. GCI Communications to provide construction and serve as the Internet service provider.

Communities Served: Unserved Households Connected: 930
Bristol Bay Communities Included: Chignik Lake, Chignik Lagoon

Communities without Middle Mile Infrastructure Funding: Togiak, Twin Hills, Chignik Bay, Ivanof Bay, Perryville, Egegik, Pilot Point, Port Heiden, Ugashik

Communities without Last Mile Infrastructure Funding: Port Alsworth, Togiak, Twin Hills, Igiugig, Iliamna, Kokhanok, Newhalen, Nondalton, Pedro Bay, Chignik Bay, Ivanof Bay, Perryville, Egegik, Pilot Point, Port Heiden, Ugashik