INTERNET FOR ALL

Finding of No Significant Impact

Unicom, Inc. (NT22TBC0290081 and AK1706-B65 Unicom (R3))

U.S. Department of Commerce

National Telecommunications and Information Administration

In cooperation with the U.S. Department of Agriculture
Rural Utilities Service

Finding of No Significant Impact

National Telecommunications and Information Administration

Tribal Broadband Connectivity Program

Airraq Network – Phases 1 and 2

Overview

This document serves as the Finding of No Significant Impact (FONSI) for the following project awarded by the National Telecommunications and Information Administration (NTIA) and United States Department of Agriculture (USDA) Rural Utilities Service (RUS). NTIA completed the sufficiency review of the recipient's Environmental Assessment (EA) and has determined that the project will not have a significant impact on the environment. The FONSI contains information related to the review.

Recipient Name:	Unicom, Inc.
Grant Project Name:	Airraq Network – Phases 1 and 2
NTIA Grant Award No.	NT22TBC0290081
RUS Grant Award No.	AK 1706-B65 Unicom (R3)
Program Location:	Dillingham, Platinum, Eek, Napaskiak, Oscarville, Bethel, Quinhagak, Tuntutuliak, Atmautluak, Nunapitchuk, and Kasigluk, Alaska

Program Summary

The NTIA awarded a grant to Unicom, Inc. (Unicom), through the Tribal Broadband Connectivity Program (TBCP), as authorized by the Consolidated Appropriations Act, 2021, Division N, Title IX, Section 905(c), Public Law 116-260, 134 Stat. 1182 (Dec. 27, 2020) (Act). TBCP provides new federal funding for grants to eligible entities to expand access to and adoption of: (i) broadband service on Tribal Land; or (ii) for programs that promote the use of broadband to access remote learning, telework, or telehealth resources during the COVID-19 pandemic. Additional funding has been provided by the RUS through the ReConnect Program. The Unicom project is called Airraq Network – Phase 1 and 2, and proposed activities are scheduled to occur in Dillingham, Platinum, Eek, Napaskiak, Oscarville, Bethel, Quinhagak, Tuntutuliak, Atmautluak, Nunapitchuk, and Kasigluk, Alaska. NTIA is the lead federal agency responsible for the EA.

Unicom completed an EA for this Project in February 2024. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes:

- **Proposed Action (Preferred Alternative):** The installation of 556.1 miles of fiber optic cable (FOC), including five beach manholes (BMH), nine connection vaults (CV), and six cable landing stations (CLS).

Based on a review of the analysis in the EA, NTIA has determined that the project, implemented in accordance with the preferred alternative, and incorporating best management practices (BMPs) and protective measures identified in the EA, will not result in any significant environmental impacts. Therefore, the preparation of an Environmental Impact Statement (EIS) is not required. The basis for this determination is described in this FONSI.

Additional information and copies of the Executive Summary of the EA and FONSI are available to all interested persons and the public through the NTIA website (www2.ntia.doc.gov/) and the following contact:

Amanda Pereira

Environmental Program Officer
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW, Room 4878
Washington, DC 20230

Project Purpose and Need

The purpose of the project is to deliver fast, reliable, broadband service to 10 rural Alaska Native villages as part of a program that meets grant funding requirements provided by federal agencies. In doing so, the Proposed Action would help close the digital divide as well as promote economic development and social services within the Yukon Kuskokwim (YK) Delta.

Servicing rural Alaska with broadband is a long-standing challenge. Only 63 percent of rural Alaska residents have access to adequate internet speeds, compared to 85 percent of all Alaska residents. The State of Alaska's Taskforce on Broadband[1] has identified the communities to be serviced by the Proposed Action as historically underserved. These communities are currently served by a combination of long-haul microwave and geostationary satellite earth stations for internet needs. While this form of internet has provided an important service, it is logistically challenging to maintain, and provides a slower and more expensive form of internet that has difficulties keeping up with data demands. As such, internet provided by microwave towers cannot meet modern bandwidth and latency needs of the region and is only considered adequate where FOC is infeasible. Unicom's proposed FOC framework would provide capacity for current needs and be able to meet increased future demand. The current microwave-based terrestrial service would be maintained to provide a redundant limited backup to essential services. The existing underserved status of rural Alaska communities' internet access demonstrates the need for this Proposed Action. Implementing the Proposed Action would provide additional opportunities for rural residents in the fields of education, employment, health, and communication.

Upon completion, the Proposed Action would provide more than 10,000 residents of rural communities with upgraded internet connectivity. This would create opportunities transformational for historically underserviced areas of western Alaska, changing the way people across the YK Delta work, learn, and connect with each other and outside communities. Importantly, the Proposed Action provides framework for potential future projects to build on, which broadens the positive impact for rural communities across the state.

Project Description

The Proposed Action would consist of two phases. Phase 1 would combine a 437-mile FOC build and Fiber to the Premises (FTTP) last mile network[2] upgrades within five communities: Platinum, Eek, Napaskiak, Oscarville, and Bethel. Using a middle mile network[3], the Proposed Action would interconnect with an existing FOC and microwave network within Dillingham.

Phase 1 has an extensive marine component, extending FOC along the ocean floor from Unicom facilities in Dillingham to Kuskokwim Bay, where a cable branching unit (BU) would

[1] State of Alaska, 2021, Governor's Task Force on Broadband.
[2] Last mile network refers to any broadband infrastructure that connects directly to an end-user location.
[3] Middle mile network refers to any broadband infrastructure that does not connect directly to an end-user location.

direct FOC to Platinum. The main FOC segment would extend beyond the Platinum BU and continue the marine route, paralleling the Kuskokwim Bay shoreline until it reaches a landfall location within the Eek River immediately upstream of its confluence with the Kuskokwim River. This would begin the overland route to Eek. From Eek, the FOC route would continue the overland route to Napaskiak, where it would cross the Kuskokwim River to Oscarville and end within Bethel. The Proposed Action would also establish a second FOC delivery technology, FTTP, within most connected communities. FTTP local network access would provide high-speed broadband access to residences and businesses within the communities of Platinum, Eek, Napaskiak, and Oscarville. The existing hybrid fiber-coaxial access networks within Bethel would be upgraded to help facilitate broadband distribution within the community.

Phase 2 would include installation of 119 miles of FOC, which would be interconnected with Phase 1 by combining middle mile network transport segments and FTTP installation in five additional communities: Quinhagak, Tuntutuliak, Atmautluak, Nunapitchuk, and Kasigluk.

Phase 2 would build off the Phase 1 FOC route with both terrestrial and marine components. A BU along the Phase 1 marine route within Kuskokwim Bay would direct FOC to Quinhagak. A separate marine cable segment would route FOC from the Apogak landfall location back into the Kuskokwim River to Tuntutuliak. The overland route would connect FOC from Bethel to Atmautluak, Nunapitchuk, and Kasigluk. Phase 2 would also construct a FTTP network within each community.

A general summary of the Proposed Action's components are as follows:

Marine Route: This route involves installation of broadband submarine FOC within marine environments below mean low water (MLW). These segments would either be trenched or laid on the seafloor. A cable ship would be used for cable-laying operations within areas of the marine route with water depths exceeding 40 feet. Elements in waters shallower than 40 feet would be conducted using a tug and barge, a small landing craft stored on the cable ship, or any small vessel capable of operating in shallow waters. Additionally, landfall locations would be assisted by a landing craft. The tug and barge would lay lightweight submarine cable, while all other marine portions of the route would use either a single or double armor submarine cable. The submarine cable is constructed from benign materials and would not carry an electrical current.

The cable would either be laid on the ocean floor or placed in a trench (i.e., trenching). Prior to trenching operations on the seabed, a pre-lay grapnel run (PLGR) would be conducted along segments of the cable-laying route to clear any seabed debris (e.g., wires, hawsers, fishing gear) in preselected locations. PLGR is conducted by pulling a grapnel along the route over the seabed. Cable would be laid on the seafloor within areas identified as low risk to cable disturbance or where traversing seafloor substrates that do not allow for it to be trenched (e.g., steep grades, bedrock). If the substrate allows, trenching would be used where there is significant risk of outside disturbance to the cable. Cable armoring would be implemented in high-risk areas where the substrate does not allow for trenching.

Burial within waters deeper than 40 feet would be conducted using a cable plow. The cable plow would be pulled along the seafloor by a tow wire connected to the cable ship. In waters shallower than 40 feet, trenching would be conducted by a jet sled. Upon completion of cable-laying operations, a post-lay inspection and burial would be conducted using a remotely

operated vehicle (ROV). Post-lay inspection is conducted to inspect portions of the cable ship route where laying operations may have encountered difficulties. The ROV would be operated remotely from the cable laying ship.

Landfall Route: This route involves installation of broadband submarine FOC between MLW and the BMH. At each landfall, the cable would be trenched within the shoreline between MLW and the BMH. A BMH is an enclosed underground structure that houses the splice between the incoming submarine cable and outgoing lightweight submarine or terrestrial cable that would connect to existing Unicom facilities. BMHs are positioned above the high tide line. Landfall trenching would be conducted with either a rock saw or backhoe. For all intertidal work (MLW to the high tide line), construction operations would occur only during low tide.

Overland Route: This route involves installation of broadband FOC along terrestrial landscapes, including wetlands, inland lakes, and stream crossings. Each overland route segment would begin and terminate within a BMH or a CV. Inland community not collocated with a marine landfall location would use a CV in lieu of a BMH. Overland route segments crossing extensive wetlands would be installed during winter months, when the substrate is frozen, to minimize ground disturbances. The cable would either be laid across the ground surface or trenched and would use a lightweight submarine cable. The cable would be buried where the route is near trails, crosses streambanks and riverbanks, or is in other places where the cable may be susceptible to damage. Additionally, unless the cable is being routed on riser poles, it would be trenched within 0.6 mile of each community.

Where crossing lakes and ponds, the cable would be laid with adequate slack on the ice surface to allow it to passively drop into the waterbody during spring break-up. When the cable sinks into the waterbody, the weight of the cable would allow it to self-bury within aquatic bed sediments. Submarine cable would be used to cross streams and rivers. Segments crossing major rivers would use a landing craft and lay single or double armored submarine cable encased in split pipe articulated armor. Natural sediment transport would passively bury the cable.

The position of the laid cable would be recorded with a survey-quality Global Positioning System. Post-lay inspection for terrestrial components would be conducted following snow and ice melt.

Community Shore Route: This route is the terrestrial FOC segment that connects BMHs or CVs with CLSs. CLSs house the infrastructure needed to convert incoming terrestrial cable to FTTP cable. Terrestrial cable would extend beyond BMHs and CVs to a CLS built on pilings and a gravel pad. Each CLS would be equipped with fully redundant heating, ventilation, and air conditioning as well as direct current power systems with 8-hour battery backup. Cable segments within community shore routes would be trenched or attached to existing utility poles and located adjacent to existing Unicom facilities where possible.

FTTP Route: This route would bring cable from the CLSs, either trenched or attached to existing utility poles, to residential and commercial users. This segment would terminate the FOC route within each community. FTTP begins at the CLS, which houses the FTTP local access distribution equipment. FTTP is then routed throughout the community, connecting to local nodes where splitters enable branching into feeder lines that deliver connectivity to the premise locations. No new utility poles would be constructed for the Proposed Action; it would

instead use existing utility poles where they are present. Where utility poles are not present, the FTTP route would be trenched.

A summary of the Proposed Action is provided in the following table:

Proposed Action Component	Phase 1 Total Length (miles)	Phase 2 Total Length (miles)	Proposed Action Total Length (miles)	Phase 1 Associated Facilities	Phase 2 Associated Facilities
Marine Route (below MLW)	330.4	75.7	406.1	BU: 1	BU: 1
Landfall Route (MLW to BMH)	0.6	0.2	0.8	BMH: 3	BMH: 2
Overland Route	49.3	27.6	76.9	CV: 5	CV: 4
Community Shore Route	1.2	0.6	1.8	CLS: 4	CLS: 2
FTTP Route	55.3	15.2	70.5	None	None
Total	436.8	119.3	556.1	—	—

Analysis of Alternatives

Unicom's EA includes an analysis of the alternatives for implementing the project to meet the purpose and need. NTIA conducted a review of Unicom's analysis of alternatives for implementing the project to meet the purpose and need, including a review of the "no action" alternative. Each alternative was evaluated for impacts against the "no action" alternative and impacts from other alternatives, as a component of selecting the preferred alternative. The following summarizes the alternatives analyzed in the EA.

Proposed Action (Preferred Alternative): The preferred alternative involves the installation of 556.1 miles of FOC and includes five BMHs, nine CVs, and six CLSs.

No Action Alternative: No action was also considered. This alternative represents conditions as they currently exist. The EA examined this alternative as the baseline for evaluating impacts relative to other alternatives being considered.

Under the no action alternative, NTIA would not provide funding to Unicom, the Proposed Action would not be constructed, and the 10 southwestern Alaska communities would continue to rely on the existing long-haul microwave and geostationary satellite earth stations network.

Internet provided by long-haul microwave and geostationary satellite earth stations limits the efficacy of providing healthcare, government, and educational services to remote Alaska. Heavy data demands would continue to inundate this pre-existing form of telecommunication. High latency and low bandwidth make the ever-growing capacity requirements for these services much too "heavy" for effective and efficient carriage over geo-synchronous satellite systems. Economic development is slowed because businesses in southwestern Alaska cannot employ the same technologies as their competitors due to the high latency and low bandwidth as well as the capacity of satellite and long-haul microwave systems.

Alternatives Considered but Not Carried Forward: Unicom also considered the following alternatives:

Fixed-wireless network distribution: This alternative would distribute the telecommunications connection throughout the Proposed Action's communities via fixed-wireless signal local distribution networks.

Unicom eliminated this alternative from further consideration based on the following reason:

This alternative would result in a lower quality experience for end users than is possible over fiber. Certain community areas may experience busy hour conditions that provide variable delivery. Performance can be hindered by harmful interference and the harsh weather of the region, which causes severe icing, and would decrease system reliability. Also, fixed-wireless access relies on the construction of multiple towers throughout each community, which would introduce new permitting and land use issues that are largely avoided with a local FOC network.

Utility pole distribution: This alternative would attach overland FOC to overhead utility poles in lieu of trenching.

Unicom eliminated this alternative from further consideration based on the following reason:

This alternative would require the installation of potentially thousands of utility poles across YK Delta wetlands. It would not meet the Proposed Action's purpose to provide reliable broadband communications to the 10 YK Delta communities. This alternative would result in unacceptably frequent service outages, and the costs of repairing these outages would be very high because most of the Proposed Action area is remote and difficult to access. It would also affect the Togiak National Wildlife Refuge and Wood-Tikchik State Park.

Low earth orbit satellite delivered internet: The current system for this region is based on a combination of long-haul microwave and geostationary satellite earth stations. This alternative would be carried out by transitioning to the low earth orbit satellite system.

Unicom eliminated this alternative from further consideration based on the following reason:

While this alternative would provide an upgrade to current conditions, it would not provide fast, reliable internet services that meets the Proposed Action's purpose. Latency issues and unreliable bandwidth have made satellite services at the community level inadequate for modern communications.

Findings and Conclusions

Unicom's EA analyzed existing conditions and environmental consequences of the preferred alternative and the no action alternative for potential impacts in the major resource areas of Noise, Air Quality (including greenhouse gases [GHGs]), Geology and Soils, Water Resources, Biological Resources, Historic and Cultural Resources, Aesthetic and Visual Resources, Land Use, Infrastructure, Socioeconomic Resources, and Human Health and Safety. The results of the analysis are summarized in the table below:

Resource Area	Preferred Alternative	No Action Alternative
Noise	No Significant Impact	No Impact
Air Quality (including greenhouse gases [GHGs])	No Significant Impact	No Impact
Geology and Soils	No Significant Impact	No Impact

Water Resources	No Significant Impact	No Impact
Biological Resources	No Significant Impact	No Impact
Historic and Cultural Resources	No Impact	No Impact
Aesthetic and Visual Resources	No Significant Impact	No Impact
Land Use	No Impact	No Impact
Infrastructure	Beneficial – No Adverse Impact	No Significant Impact
Socioeconomic Resources	Beneficial – No Adverse Impact	Significant
Human Health and Safety	Beneficial – Less than Significant Impact	Significant

The sections that follow provide a brief narrative for those resource areas where there has been a potential impact indicated in the table above. If consultation regarding a resource area was required, a summary of the results of required consultation with the appropriate agency or agencies is included below.

Noise

Preferred Alternative: Temporary noise impacts in the terrestrial environment would occur from the use of mechanized construction equipment, including but not limited to trucks, back hoes, excavators, rock saws, chain trenchers, and other heavy equipment. Upon completion of construction, noise levels would return to previous levels. Diesel-powered generators housed in CLS facilities would only operate during power outages. These impacts would be short term and localized.

The Proposed Action would not have a substantial or long-term impact on sensitive sound receptors in the terrestrial environment. No significant terrestrial noise impacts are anticipated.

Temporary noise impacts would occur during construction activities in the marine environment. Vessels used for construction would generate underwater noise from the collapse of air bubbles (cavitation) created when propeller blades move rapidly through the water. These impacts would be temporary and limited to the duration of vessel transit and cable laying. Upon completion of construction, noise levels would return to previous levels.

Less than significant marine noise impacts from the preferred alternative are anticipated.

Air Quality

Preferred Alternative: Exhaust emissions from heavy machinery and vehicles used during construction would typically include particulates, hydrocarbons, sulfur oxides, nitrogen oxides, and carbon monoxide. Reductions in air quality resulting from these impacts would be minor, localized, and temporary. The use of construction vehicles and equipment over unpaved surfaces may generate fugitive dust. Excavation and earth-moving activities may cause re-entrainment of dust particulates and possibly other pollutants into the atmosphere. These effects would be temporary and primarily local in nature.

Emissions from the exhaust of diesel-powered generators used at CLS facilities would only be used during power outages, and would be temporary and local in nature. Incremental emissions from the power generators would be considered negligible.

Less than significant air quality impacts from the preferred alternative are anticipated.

Geology and Soils

Preferred Alternative: Transiting construction equipment and trench filling may cause localized soil compaction and alteration in surface water drainage and infiltration. Surface impacts may destabilize soils and make them more susceptible to erosion. All trenching would be limited to areas above permafrost to minimize erosion impacts. These impacts would be localized and minor. A Construction General Permit (CGP) and Storm Water Pollution Prevention Plan (SWPPP) would be needed from the Alaska Department of Environmental Conservation for construction; it would include BMPs for preventing and controlling erosion and stormwater.

Permanent impacts would be limited to the areas where BMH, CV, and CLS facilities are located. These impacts would be localized and minor in nature.

The preferred alternative would have a less than significant impact on geology and soils.

Water Resources

Preferred Alternative: The following section describes potential effects of the preferred alternative on surface water; marine, coastal zone, estuary, and intertidal area waters; and wetlands. Less than significant impacts to water resources are anticipated as a result of the preferred alternative.

Surface water impacts from the preferred alternative would be temporary and associated with construction activities. Jet trenching would create localized turbidity. Divers would be accompanying jet sled trenching operations to monitor trenching performance, and ensure turbidity and disturbance is minimized. These impacts are anticipated to be localized, short-term, and minor.

Construction within communities may result in minor, indirect impacts to surface waters through erosion and stormwater runoff. This may cause a localized and short-term impact on water quality and increased turbidity that would be mitigated through mitigation measures included in the CGP and SWPPP. No significant impacts on surface waters are anticipated.

Direct and indirect impacts to marine, coastal zone, estuary, and intertidal area waters from construction would be temporary and localized. Impacts from the PLGR include alteration of marine sediments and localized turbidity. The cable plow and jet sled would create localized turbidity and disturb marine sediments previously disturbed by the PLGR. Much of marine waters used by the Preferred Alternative (e.g., Nushagak and Kuskokwim Bays) are naturally turbid.

Excavations and backfilling of trenches at intertidal landfall locations would occur completely “in the dry” during a low tide cycle. Localized turbidity would occur at the excavation site as water floods the area during an incoming tide. Intertidal landfall impacts from turbidity would be temporary.

Impacts on the marine, coastal zone, estuary, and intertidal environment from the preferred alternative are anticipated to be less than significant.

The preferred alternative would have permanent impacts on wetlands and would require a Nationwide Permit (NWP) verification from the United States Army Corps of Engineers (USACE) for unavoidable permanent and temporary impacts to Waters of the United States (WOTUS) under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. NWPs are used by USACE when the project would have no more than minimal adverse environmental effects. The preferred alternative would permanently fill 0.28 acre of WOTUS with 2,240 cubic yards of fill material. An additional 930 cubic yards of excavation would occur in WOTUS.

Permanent and temporary impacts to WOTUS are anticipated to be minimal and localized. Unicom submitted an application package for authorization under USACE NWP 57 – Electric Utility Line and Telecommunications Activities. On February 26, 2024, NTIA notified USACE of the conclusion of the public comment period and its determination of no significant effects. No permanent impacts in Section 10 waters would occur. Construction of the preferred alternative would occur in accordance with NWP General Conditions and Alaska Regional Conditions.

No significant impacts on wetlands and other WOTUS are anticipated.

Biological Resources

Preferred Alternative: The following section describes potential effects of the preferred alternative on threatened and endangered species and critical habitat, marine mammals, bald eagles, vegetation, wildlife, and essential fish habitat (EFH). Less than significant impacts on biological resources are anticipated as a result of the preferred alternative.

The potential effects of the preferred alternative on Endangered Species Act-listed species and critical habitat include acoustic disturbance generated by vessels and cable-laying equipment, vessel strikes, effects to prey species, habitat alteration, and pollution.

The National Marine Fisheries Service (NMFS) has determined that acoustic disturbance from the preferred alternative would not result in immediate or long-term effects to marine mammals because of the transitory nature of the activity and the ability of marine mammals to move away from approaching vessels. Similarly, with respect to the potential for vessels strikes, effects on prey species of listed marine mammals, habitat alteration, and pollution, NMFS found that these effects are discountable. Vessel speeds for the preferred alternative have been intentionally limited to reduce the chance of marine mammal strikes, and the project will use protected species observers. Additionally, modern cable-laying techniques nearly eliminate the risk of marine mammal entanglement. For these reasons, NMFS determined that the preferred alternative may affect, but is not likely to adversely affect, Beringia Distinct Population Segment (DPS) bearded seals, Arctic ringed seals, Mexico DPS humpback whales, Western North Pacific DPS humpback whales, Western North DPS gray whales, North Pacific right whale, sperm whales, fin whales, or Western DPS Steller sea lions. Additionally, in their Letter of Concurrence, NMFS determined that acoustic disturbance from preferred alternative vessels within Steller sea lion critical habitat would be too small to detect.

The United States Fish and Wildlife Service (USFWS) determined that the preferred alternative would have no effect on short-tailed albatross, Southwestern DPS northern sea otter, and spectacled eiders. USFWS also determined that the preferred alternative may affect, but is not

likely to adversely affect, Steller's eiders. The potential for spills to injure or kill eiders would be minimal because spill prevention and response measures would be in place at all vessels.

The preferred alternative is anticipated to have less than significant impacts on threatened and endangered species.

Since the cable would be buried, it is not expected to disrupt the movement of any terrestrial mammals. Terrestrial mammals present during construction may be temporarily disturbed by activities. Ongoing maintenance of the preferred alternative is expected to be minimal. As such, periodic disturbance from human presence is expected to be minimal.

For the same reasons stated above concerning the may affect, but not likely to adversely affect determination to threatened and endangered marine mammals by NMFS, USFWS and NMFS have determined noise from vessels would not rise to harassment under the Marine Mammal Protection Act, and vessel strikes are unlikely. As such, the preferred alternative is not anticipated to adversely affect marine mammals.

Bald eagle nests have not been recorded within 2,500 feet of the preferred alternative. While both bald and golden eagles may be present within the preferred alternative area, construction is not anticipated to disturb nests, and any noise impacts are anticipated to be minimal.

No significant impacts on wildlife from the preferred alternative are anticipated.

The majority of vegetation clearing would be to areas with grasses and small shrubs. Clearing and terrestrial construction would occur outside the bird nesting window for the YK Delta, when migratory birds are not present. Marine construction would generally occur outside the window when migratory birds would be molting and wintering. FTTP construction would occur year-round; however, any vegetation clearing that would happen from FTTP construction would likely occur along existing roads within the serviced communities and is anticipated to be limited.

Re-vegetation of disturbed areas with local and native species would occur as soon as practicable, and clean gravel would be used for construction pads. The preferred alternative is therefore unlikely to contribute to the spread of invasive species.

An EFH assessment was prepared to describe the preferred alternative, designated EFH and impacts on EFH within the preferred alternative corridor, and potential mitigation or conservation measures. Additionally, an Alaska Department of Fish and Game Fish Habitat Permit (FH23-II-0071) was obtained for the preferred alternative detailing components that would require work in or near fish habitat. Consultation preceding obtaining this Fish Habitat Permit detailed construction within and adjacent to anadromous waterbodies intersected by the preferred alternative.

Habitat disturbance from surface laying submarine cable would be relatively minimal and temporary. Once placed, this surface-laid submarine cable is not anticipated to adversely affect fishery management plan managed fish species nor the habitats' ability to support managed species.

PLGR, cable plowing, and jet trenching would physically alter habitat, resulting in a reduction of habitat quality and a temporary increase in turbidity. Habitat reduction and modification would be limited spatially and temporally. However, when jetting in fine, muddy substrates, increased turbidity may be visible for several days. The slow speed of the marine-disturbing activities

would allow most fish to move away from the active construction; however, small or juvenile benthic species or life stages (e.g., larval, egg) may be vulnerable to injury or potential burial and unable to avoid the disturbance.

NMFS concurred with the EFH assessment prepared for the preferred alternative, specifically that the preferred alternative may adversely affect EFH, but those impacts would be minimal and short term.

Impacts on fisheries and EFH from the preferred alternative are expected to be less than significant.

Historic and Cultural Resources

Preferred Alternative: Provisions under Section 106 of the National Historic Preservation Act require federal agencies to consider the potential effects of federal undertakings on historic properties (i.e., cultural resources eligible for or listed in the National Register of Historic Places), and to consult with the State Historic Preservation Office (SHPO), appropriate Tribal entities, and other stakeholders.

No known historic properties exist within the preferred alternative route. On May 18, 2023, Section 106 consultation initiation letters were sent to SHPO and 34 potentially interested consulting parties/entities. Calista Corporation and the City of Dillingham responded with requests to consult on the preferred alternative. On October 20, 2023, NTIA sent SHPO and these two parties letters notifying them of a finding of no historic properties affected and attached the terrestrial cultural resources survey report for the preferred alternative. The City of Dillingham did not request further information or consultation regarding the project. In a letter dated February 23, 2024, Calista Corporation requested that tug and barge operators reach out to communities early and often prior to engaging in broadband installation activities and be respectful of subsistence users on the river.

Aesthetic Visual Resources

Preferred Alternative: The structures and facilities proposed by the preferred alternative would be relatively small and located within communities, considering the broad landscapes within the region, and would not change the overall aesthetics of the preferred alternative area.

The preferred alternative is anticipated to have a less than significant impact on the visual characteristics of the existing natural environment.

Infrastructure

Preferred Alternative: The preferred alternative would have minor impacts on travel patterns during construction due to the presence of work vehicles within construction areas. Traffic Control Plans would be used to ensure safety by temporarily diverting vehicle or foot traffic around construction areas. A minor impact on marine transportation is anticipated during cable-laying activities as boats may have to detour around the cable-laying ship. Upon implementation of new broadband services within each community, a minor decrease in regional air travel demand is expected as individuals rely more on the internet for services.

The preferred alternative would make high-speed broadband service available to 10 communities. Improved internet may result in residents spending more time inside and online, which would increase the demand for electricity. This increase is expected to be permanent, though minimal, and within the capacity of each community's power supply.

During construction, a slight increase in demand for public services is anticipated due to the presence of construction crews. This impact is expected to be minor and temporary.

Short- and long-term beneficial impacts on infrastructure from the preferred alternative are anticipated.

No Action Alternative: The no action alternative is not expected to adversely affect the transportation system or public services/utilities beyond existing conditions. If an increase in population growth continues for these communities, existing infrastructure may not be able to sustain usage demands without adequate internet alternatives. Therefore, the no action alternative is anticipated to have a less than significant impact on infrastructure.

Socioeconomic Resources

Preferred Alternative: The preferred alternative would have a beneficial impact on socioeconomic resources as it would improve the function of the services provided to residents. It would not have a disproportionate adverse impact on minority or low-income populations and therefore would not have any environmental justice impacts. The preferred alternative would increase communities' access to reliable and fast broadband service, which would positively affect many socioeconomic aspects of each community, including the accessibility of health and educational services for all residents.

Increasing access to broadband internet is anticipated to provide new economic opportunities as more people are able to engage in remote work. It will improve the ability of existing individuals and organizations to participate in online meetings, reducing cost and improving efficiency. The preferred alternative is anticipated to create 248 jobs, with 29 jobs being for Alaska Natives. These jobs would be in network construction, network operations, and community customer services. The preferred alternative would also provide workforce development opportunities through a partnership with Yuut Elitnaurviat, a non-profit organization.

The preferred alternative would have a beneficial impact on educational services as it would provide an updated system for students to participate in their education, provide more educational opportunities, and benefit schools. Improved internet would also result in quality-of-life improvements as people would be able to have access to improved phone and video calls, better access to online goods and services, and increased participation in social media groups.

Construction activities would require workers to live within each community for several weeks while construction is ongoing. This is expected to have a positive economic impact on the communities as workers would pay for lodging and food.

The preferred alternative would have short- and long-term beneficial impacts on socioeconomics by improving services to residents.

No Action Alternative: Under the no action alternative, schools as well as public health and safety facilities would continue to be underserviced and not meet statewide broadband

standards. The no action alternative would continue to delay economic development as use of the existing system would continue to operate with high latency, low bandwidth, and the limited capacity of satellite systems. Additionally, satellite systems remain the highest cost alternative over time. The no action alternative would continue the disparity in socioeconomic resources for this region and would negatively affect all Tribal communities within the area as it would not address the lack of internet access as well as lack of access to health care, education, and economic opportunities. Therefore, the no action alternative would have significant adverse impacts on socioeconomics.

Human Health and Safety

Preferred Alternative: The preferred alternative would have a beneficial impact on public health and safety as it would provide updated services to these facilities. Faster and more reliable internet would improve existing services and provide opportunities for new services. Improved internet access would provide more opportunities for residents to access medical information available online in addition to providing more access to telemedicine opportunities. This could reduce costs to health care providers and patients. Greater access to care is anticipated to improve the overall health of community residents.

Short- and long-term beneficial impacts on health and human safety are anticipated from the preferred alternative.

No Action Alternative: Under the no action alternative, public health and safety facilities (including telemedicine) would continue to be underserviced and not meet statewide broadband standards. If an increase in population growth continues for these communities, human health and safety services may experience strain as local populations inundate their current capacity without adequate internet alternatives. Therefore, the no action alternative may have significant adverse impacts on health and human safety.

Cumulative Impacts

The preferred alternative would not have significant, adverse, cumulative impacts on any environmental resource evaluated in the EA. All construction impacts are expected to be minimal and localized to areas immediately adjacent to preferred alternative activities. While additional construction projects are anticipated to occur in close proximity to the preferred alternative in the near future, they are not expected to influence the preferred alternative in a way that would cause impacts to rise to a level of significance.

Impacts on infrastructure, socioeconomic resources, and human health and safety from the preferred alternative are anticipated to be beneficial. The preferred alternative would provide 10 underserviced communities in remote southwestern Alaska with technological opportunities that would promote education, health, the economy, and the well-being of Alaskan residents. In doing so, the preferred alternative would further community comprehensive plans within the region. The preferred alternative would create transformational opportunities across the YK Delta and provide a framework for future projects to build on.

Public Comment

NTIA and RUS completed a public comment period for the Airraq Network – Phases 1 and 2 EA. The public comment period began on January 23, 2024, and ended on February 25, 2024. Public notice was placed in advertisements in the *Bristol Bay Times* and *Delta Discovery* in print and online. Flash drives containing the EA and printed fact sheets on the preferred alternative and National Environmental Policy Act (NEPA) process were made publicly available within Dillingham, Bethel, Platinum, Eek, Napaskiak, Quinhagak, Tuntutuliak, Atmautluak, Nunapitchuk, Kasigluk, and Oscarville. Flyers with information about the project and the public comment process were posted in each community. NTIA also posted a notice on their website for the EA and directions on how to comment. NTIA received comments from Calista Corporation that were supportive of the project and the associated analysis. Calista requested that tug and barge operators reach out to communities early and often prior to engaging in broadband installation activities, and that they be respectful of subsistence users on the river, particularly during limited fishing openers within the project area. NTIA did not receive any comments in opposition to the EA.

Other Local, State, Tribal, or Federal Permits/Approvals

The grantee and its contractor(s) will comply with all applicable environmental and historic preservation laws and regulations addressed as part of the NEPA review as well as those outside of it (collectively, “Environmental Requirements”). Environmental Requirements include, without limitation, any statute, law, act, ordinance, rule, regulation, order, decree, permit, or ruling of any federal, state, local, and/or tribal government, or administrative regulatory body, agency, board, or commission or a judicial body, regulating and/or restricting impacts to and/or protection of human health, the environment, and/or historic preservation. The grantee or its contractor(s) will be the party of record for all permits and/or approvals related to deploying, operating, and maintaining the preferred alternative and will be solely responsible for obtaining any new or revised permits and/or approvals needed to deploy, operate, and maintain the preferred alternative.

Decision

NTIA concludes that constructing and operating the project as defined by the preferred alternative, identified BMPs, and protective measures will not require additional mitigation. A separate mitigation plan is not required for the project. The analyses indicate that the Proposed Action is not a major federal action that will significantly affect the quality of the human environment. NTIA has determined that preparation of an EIS is not required.

Issued on March 6, 2024, by:

AMANDA PEREIRA
Digitally signed by AMANDA PEREIRA
Date: 2024.03.06 14:10:47 -05'00'

Amanda Pereira

Environmental Program Officer
National Telecommunications and Information Administration
U.S. Department of Commerce Room 4878
1401 Constitution Avenue, NW, Washington, DC 20230