
INTERNET FOR ALL

Finding of No Significant Impact

Doyon, Limited (NT22TBC0290063)



U.S. Department of Commerce
National Telecommunications and Information Administration

Finding of No Significant Impact

National Telecommunications and Information Administration

Tribal Broadband Connectivity Program

Alaska FiberOptic Project

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). NTIA has 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:	Doyon, Limited
Grant Project Name:	Alaska FiberOptic Project
Grant Award No.:	NT22TBC0290063
Program Location:	Central Interior Region of the Yukon River, Alaska

Program Summary

The NTIA awarded a grant to Doyon, Limited, 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. The Doyon, Limited project is called the Alaska FiberOptic Project and proposed activities are scheduled to occur in the central interior region of the Yukon River within the communities of Fort Yukon, Beaver, Stevens Village, Rampart, and Tanana.

Doyon, Limited completed an Environmental Assessment (EA) for this Project in June 2024. NTIA reviewed the EA, determined it is sufficient, and adopted it as part of the development of this FONSI.

The Project includes installation of fiber optic cable (FOC) that would be installed underground, on the ground surface, aerially on existing and new utility poles, and in the deep channels of the Yukon River. The Project is divided into two corridors—the Terrestrial Corridor and the River Corridor—each corresponding to a geographical portion of the Project. The River Corridor contains an overland route, the Canyon Bypass, which avoids the Rampart Rapids.

- **Terrestrial Corridor.** The Terrestrial Corridor originates in Fairbanks, Alaska and extends to the north end of the E.L. Patton Bridge crossing over the Yukon River. In the 132 mile-long Terrestrial Corridor, new FOC would be installed aerially on existing and new poles and installed underground in existing utility right-of-way (ROW). A FOC regeneration site would be placed at a mid-point along the Terrestrial Corridor (in the vicinity of Livengood) to boost the signal.
- **River Corridor.** The River Corridor originates at the north end of the E.L. Patton and extends east up the Yukon River to Fort Yukon and west down the Yukon River to the eastern terminus of the Canyon Bypass, and from the western terminus of the Canyon Bypass downriver to Tanana. Approximately 316 miles of FOC would be installed in the River Corridor; the new FOC would be laid in the thalweg of the Yukon River and would be installed under the riverbed from the thalweg to a point onshore within each of the five communities and adjacent to the western and eastern termini of the Canyon Bypass. In and at each of the five communities, a beach manhole (BMH) and communications shelter will be installed, and then the FOC would be installed on existing poles each community.
- **Canyon Bypass.** Downstream of Rampart and upstream of Tanana, a section of the Yukon River has been identified as unsuitable for the laying of FOC in the river due to the velocity of currents in this area. To avoid this stretch of the river, an overland alignment—termed the Canyon Bypass—was identified to transit around this area.

Based on a review of the analysis in the EA, NTIA has determined that the project, implemented in accordance with the Proposed Action, 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 (<https://broadbandusa.ntia.gov/funding-programs/documentation-and-reporting>) and the following contact:

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Project Purpose and Need

The purpose of the Alaska FiberOptic Project is to connect approximately 600 households in five underserved, predominantly Alaska Native communities along the Yukon River to a reliable and affordable hard-wired high-speed broadband network. This network would bridge the digital divide in one of the most remote, isolated, high-cost, and difficult to serve areas of the United States.

The Proposed Action would:

- Create permanent jobs for Alaska Native and rural residents;
- Bring new opportunities for distance education, telemedicine, public health and safety, and rural economic development;
- Provide an essential tool for cultural survival acting as a hub for language preservation; and
- Connect youth and adults with Alaska Native Elders, mentors, and networking resources.

Project Description

Doyon, Limited (Doyon) proposes to construct and operate the Alaska FiberOptic Project (Project). Doyon proposes to provide hard-wired broadband access to approximately 600 households in five underserved, predominantly Alaska Native communities within Doyon's Alaska Native Regional Corporation boundary. The five communities are Fort Yukon, Beaver, Stevens Village, Rampart, and Tanana.

The Proposed Action consists of installing approximately 468 miles of fiber optic cable (FOC): 132 miles would be installed underground and overhead within previously-disturbed rights-of-way along existing roadways between Fairbanks and the Yukon River, 316 miles would be laid underwater in the deepest active channel of the Yukon River, and 20 miles would be installed underground and on the surface of a remote, undisturbed, Canyon Bypass; FOC would also be installed within each of the five communities. Underground installation would be accomplished primarily using vibratory plowing and horizontal directional drilling (HDD); aerially-installed cable would be placed primarily on existing poles. Installation along the Yukon River would utilize underwater plows and HDD.

The Proposed Action is divided into two corridors—the Terrestrial Corridor and the River Corridor—each corresponding to a geographical portion of the Proposed Action. The River Corridor contains an overland route, the Canyon Bypass, which avoids the Rampart Rapids.

Terrestrial Corridor

The Terrestrial Corridor originates at the Alaska Communications System (ACS) switching station at 321 Hagelbarger Avenue in Fairbanks, Alaska and extends to the north end of the E.L. Patton Bridge. In the 132 mile-long Terrestrial Corridor, new FOC would be installed aerially on existing poles between the ACS switching station and within the vicinity of the Lower Chatanika River State Recreation Area (LCRSRA). The FOC would be installed generally

underground in existing utility ROW along the Steese Highway, Elliott Highway, and Dalton Highway. The table below summarizes proposed installation techniques along the corridor.

Installation Technique	Location	Distance	Area of Impact	Seasonal Timing
Aerial	Project Start (321 Hagelbarger Ave.) to MP 14 on the Elliott Highway	20 miles	n/a	Summer/Fall
Vegetation Clearing	To support all underground installation	92 miles	168 acres	Spring/Fall*
Subsurface Installation**	Starting at MP 14 of the Elliott Highway and continuing until the E.L. Patton Bridge at the Yukon River	112 miles	160 acres	Summer/Fall/ Winter
HDD	All waterbody and roadway crossings	0.78 miles	0.09 acres	Summer/Fall/ Winter
Vaults	Vaults would be located no greater than every 20,000 feet	n/a	0.03 acres	Summer/Fall/ Winter

* Vegetation clearing would follow the USFWS Timing Recommendations to Avoid Land Disturbance and Vegetation Clearing guidelines (USFWS 2017).

**Includes vibratory plowing, traditional trenching, frost trenching, benching.

River Corridor

The River Corridor originates at the north end of the E.L. Patton Bridge and extends east up the Yukon River to Fort Yukon and west down the Yukon River to the eastern terminus of the Canyon Bypass, and from the western terminus of the Canyon Bypass downriver to Tanana. Approximately 316 miles of FOC would be installed in the River Corridor; the new FOC would be laid in the thalweg of the Yukon River and would be installed under the riverbed from the thalweg to a point onshore within each of the five communities and adjacent to the western and eastern termini of the Canyon Bypass. The infrastructure installed in the River Corridor consists of the middle-of-river FOC, river-to-shore FOC, a beach manhole (BMH), a communications shelter, and then the FOC in the communities.

Construction methodology and equipment that may be used during installation of the FOC in the River Corridor is addressed in the sections below. The table below summarizes proposed installation techniques along the corridor.

Installation Technique	Location	Distance	Area of Impact	Seasonal Timing
Jet Plow	Fort Yukon to Beaver	88 miles	10.7 acres	Summer/Fall
Scratch Plow	Beaver to Tanana	228 miles	27.7 acres	Summer/Fall
HDD	Tie locations at each of the five communities, one at the Yukon River Bridge, and two for exit and reentry at the Canyon Bypass.	n/a	<0.001 (35 square feet)	Summer/Fall

Canyon Bypass

Downstream of Rampart and upstream of Tanana, a section of the Yukon River has been identified as unsuitable for the laying of FOC in the river due to the velocity of currents in this area. To avoid this stretch of the river, the 20-mile-long Canyon Bypass overland alignment was identified to transit around this area. The majority of the FOC would be installed using the vibratory plowing methodology and HDD, and approximately 1 mile of

the FOC would be laid directly on the ground surface to avoid and minimize impacts to wetlands. The table below summarizes proposed installation techniques along the Bypass Corridor.

Installation Technique	Location	Distance	Area of Impact	Seasonal Timing
ROW Clearing		18 miles	32 acres	Summer/Fall
Surface Lay	North end of the bypass. BMH to Garnet Creek	1 mile	n/a	Summer/Fall
Subsurface Installation (Vibratory Plow)	Garnet Creek to river re-entry point	19 miles	1 acres	Summer/Fall
HDD	Under Garnet Creek, Stevens Creeks, Texas Creek, and Jordan Creek, river exit, river re-entry	0.3 miles	<0.001 (33 square feet)	Summer/Fall

Analysis of Alternatives

Doyon’s EA includes an analysis of the alternatives for implementing the project to meet the purpose and need. NTIA conducted a review of the recipient’s analysis of alternatives for implementing the project to meet the purpose and need, including a review of the “no action” alternative, where applicable. 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.

Alternative 1 (Preferred Alternative): Alternative 1 (Proposed Action) is described above in the Project Description section.

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, the Proposed Action would not be constructed, and the five villages would remain underserved by wired high-speed internet service. Antiquated (in modern terms) internet access would continue to be available utilizing the existing microwave-based communication system in the region; newer satellite-based internet service would also continue to be available. The *de minimis* benefits of not constructing and operating the Proposed Action are outweighed in breadth and depth by the needs for, and benefits promised by, the construction and operation of the Proposed Action.

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

Hess Creek/Doyon Land Routing: During the evolution of the Proposed Action’s design, an option was reviewed as a means to increase the portion of the Project that would be installed on land (rather than in the Yukon River) and to maximize the use of Doyon-owned lands, while still providing the necessary connection to the Yukon River. This alignment option (termed the Hess Creek/Doyon Land Routing) included:

- From the Hess Creek Bridge located at approximately MP 24 of the Dalton Highway, FOC would be laid overland in a northwesterly direction to the point where Hess Creek flows into the Yukon River upstream from the community of Rampart. The FOC would

then be installed downstream in the thalweg of the Yukon River as described for the Proposed Action.

- From a point along the Dalton Highway north of the Hess Creek Bridge and south of the E.L. Patton Bridge, FOC would be laid overland in a northeasterly direction across Doyon and State of Alaska land to a point on the south side of the Yukon River across from the community of Stevens Village. The FOC would then be installed upstream in the thalweg of the Yukon River as described for the Proposed Action.

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

The Hess Creek portion uses the active floodplain of a highly sinuous river. The direct laying of the FOC would expose the network to unnecessary points of failure given the variable soil conditions of the floodplain and associated erosion and debris. The northeast extension to Stevens Village is variable, and often steep, forested terrain that would require multiple river crossings. This option would require construction activities that are more complex—and that would result in greater surface disturbance—than installation along the highway and in the Yukon River. The highly variable terrain and dynamic environments along the route would result in the potential for greater environmental impacts both from construction and operational maintenance.

Aerial Installation of Fiber Optic Cable: This alternative would attach FOC aurally to existing and new utility poles along the Terrestrial Corridor in lieu of underground installation.

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

In many parts of the United States, aerial installation of FOC on existing utility poles, or utility poles newly-installed to support the FOC, is the preferred installation method due to the lessened environmental impacts in most environments, lower cost, and faster installation schedule compared with underground installation. However, aerial installation of FOC, except within established communities or along existing ROWs and on existing utility poles maintained by others, is infeasible in the Project area, due in large part to the widespread prevalence of permafrost: timber poles or other directly-embedded poles installed in permafrost are subject to failure as a result of the freeze-thaw cycles of permafrost, resulting in reliability issues. The average burial depth of a utility pole is 12-15 feet at minimum. Permafrost throughout the Terrestrial Corridor is predominately discontinuous. Additionally, this configuration option presents greater potential environmental impacts when compared to the Proposed Action—air emissions, for instance, would be increased if extensive helicopter-supported construction were employed to minimize surface disturbances; if such helicopter-supported construction were not utilized, greater impacts to terrestrial resources (including flora, fauna, and cultural and paleontological resources, if present) would be realized.

Wireless Provision of High-Speed Internet Service: This alternative would provide broadband internet service wirelessly using microwave radio signals or low earth orbit (LEO) satellite systems.

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

The use of microwave-provided wireless high-speed internet service is infeasible in the Project area due to the lack of established infrastructure. The range of a wireless broadband signal is approximately 30 miles; this would require the installation of approximately 10 tall radio towers along the Yukon River (including in the Yukon Flats National Wildlife Refuge). Further, this

would require the installation of a dedicated power service for each of the towers, which would likely be diesel-fueled generators due to their reliability and ubiquity in rural Alaska; the use of diesel generators would entail frequent refueling and increased operations and maintenance requirements. The use of microwave-provided wireless internet service would not meet the purpose and need because it would not provide a hard-wired high-speed internet connection. Further, this option presents increased potential environmental effects from the operation of diesel generators (including new generators in each of the villages, and the concomitant potential environmental and human health effects); the avoidable impacts to avian species associated with tall, guyed structures like the necessary radio towers; the increased greater operations and maintenance costs; and the lowered service speeds associated with wireless technologies.

LEO satellite systems require a large array or “satellite constellation” to provide wireless broadband service to ground based receivers. LEO systems depend upon clear unobstructed line of site connection with the satellites and are not designed to work in extreme cold temperatures that exist in interior Alaska. The LEO broadband systems are viable backup systems, but do not compare in the reliability and speed of a hard-wired fiber optic system for long term dependable internet service. LEO satellite system-provided wireless internet service would not meet the purpose and need for the Project because it would not provide a hard-wired high-speed internet connection.

Findings and Conclusions

The recipient’s EA analyzed existing conditions and environmental consequences of the Proposed Action, other alternatives, 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, Recreation/Travel and Transportation, Subsistence, Infrastructure, Socioeconomic Resources and Environmental Justice, and Human Health and Safety. The results of the analysis are summarized in the table below:

Resource Area	Proposed Action	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 Significant Effect	No Impact
Aesthetic and Visual Resources	No Significant Impact	No Impact
Land Use	No Significant Impact	No Impact
Recreation/Travel and Transportation	No Significant Impact	No Impact
Subsistence	No Significant Impact	No Impact
Infrastructure	No Significant Impact	No Impact
Socioeconomic Resources and Environmental Justice	Beneficial—No Adverse Impact. Environmental Justice (EJ) communities would gain access to hard-wired broadband internet access.	Significant Impact. Environmental Justice (EJ) communities would continue to lack access to hard-wired broadband internet access.
Human Health and Safety	Beneficial—Less than Significant Impact	Significant Impact

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

Air Quality

Emissions during construction would include criteria air pollutants. Construction-related emissions would be temporally distributed across the construction period and geographically distributed along the Terrestrial Corridor, River Corridor, and Canyon Bypass. The emissions associated with the proposed construction activities would represent a fraction of the regional emissions inventory, and no pollutants would be emitted at levels that would result in a change in the air quality classification for any geographic location, nor exacerbate the degree of non-attainment, and would not hinder attainment of the national ambient air quality standards in the area, thus ensuring general conformity. Therefore, air quality-related emissions during construction would not be significant.

Routine operation of the components would not generate emissions, and therefore there would be no air quality-related impacts during routine operation.

No Action Alternative: Under the No Action Alternative, no air quality-related impacts would be generated.

Geology and Soils

No impacts to geologic formations would be realized given the small dimensions of the clearing, plowing, trenches, and borings necessary to install the FOC and the small size of each excavation required for each new BMH and occasional utility pole. The installation of new utility poles and the underground installation of the FOC would involve surface disturbance. Soil erosion and sedimentation would be avoided or minimized through implementation of best management practices and compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements.

Underground installation of the FOC by plowing, trenching, or benching, and the installation of new utility poles, would be unlikely to impact permafrost (where permafrost is present). Boring may exceed the depth of the active layer; however, the installed infrastructure is of small diameter, would operate at ambient temperatures, and significant impacts to permafrost would not be realized. Construction techniques, including compaction and creation of water bars with impermeable material, will mitigate against thermal erosion and thus degradation of permafrost. Impacts to soils (specifically permafrost) resulting from construction of the Proposed Action would not be significant.

Routine operation of the components would not result in impacts to geology or soils.

No Action Alternative: Under the No Action Alternative, no impacts to geology and soils would be generated.

Water Resources

The following section describes potential effects of the Proposed Action on surface water; groundwater; coastal zone, estuary and inter-tidal areas; floodplains; and Wild and Scenic Rivers. No impacts to coastal zone, estuary and inter-tidal areas, and Wild and Scenic Rivers,

would be realized as these are not found in the project area. Less than significant impacts to the other water resources are anticipated under the Proposed Action.

The Proposed Action crosses numerous surface waters (i.e. lakes and rivers) along the Terrestrial Corridor. In areas where the FOC would be installed on existing utility poles, surface waters would be spanned aurally, with installation equipment sited on adjacent upland areas. No new poles would be installed within or adjacent to a surface water. In areas where FOC would be installed underground, and where surface waters are present (i.e., are not culverted), HDD would install the FOC underground beneath surface water features. As with aerial construction, equipment would be staged on upland areas set back from the surface waters.

To protect surface water quality, in areas where surface waters are present, vegetation removal would be limited to the extent feasible and buffered from the edge of the features. Necessary permit(s) and certifications—including one or more permits and certifications issued under Sections 404 and 401 of the Clean Water Act and Section 10 of the River and Harbors Act—would be obtained for work in or adjacent to wetlands and navigable waters, and the proponent would ensure compliance with the terms and conditions of those permit(s). Implementation of BMPs contained in the SWPPP(s) developed for the Proposed Action—including BMPs regarding sediment and stormwater controls, fueling, materials handling and storage, and spill response—would minimize potential impacts to surface water quality during construction.

Given the naturally high level of turbidity and suspended solids present in the Yukon River, this degradation associated with the disturbance of bottom sediments would be de minimis with the river swiftly returning to preconstruction conditions. Long term erosion and shifts in riverbed stability are not anticipated. Therefore, only less than significant impacts to surface waters are anticipated during construction.

No significant impacts to groundwater quality or quantity would result from construction. The depth to groundwater varies across the corridors; in areas with shallow groundwater, burial of the FOC, installation of new poles, or installation of BMHs may encounter groundwater. If encountered, groundwater would be discharged to the surface. Impacts to groundwater quality during construction would not be significant, and implementation of BMPs would further reduce potential impacts. The very small cross-sections of infrastructure to be installed underground would have no effect on groundwater flow at any meaningful scale.

Mapped floodplains occur in both the Terrestrial and River corridors. Given that all aboveground components (including the communications shelters in the communities, new utility poles, and the regeneration site) are small in scale, that no changes to the morphology or drainage patterns of surface waters would be realized as surface waters would be either spanned aurally or HDD would be used to install FOC below surface waters, and that the small cross-section of underground installation of FOC would not alter surface flow patterns, no adverse impacts to floodplains are anticipated.

Routine operation of the components would not result in any impacts to water resources, as operation of the components is passive.

No Action Alternative: Under the No Action Alternative, no impacts to waters or water resources would be generated.

Biological Resources

The following section describes potential effects of the Proposed Action on wildlife, vegetation, threatened and endangered species, Bureau of Land Management special status species, critical or threatened/endangered habitat, migratory birds and eagles, fish/essential fish habitat (EFH), and wetland habitats. No federal- or state-listed threatened or endangered species or designated critical habitat are found along the corridors, and therefore no impacts to these resources would occur. Less than significant impacts on biological resources are anticipated as a result of the Proposed Action.

A number of terrestrial and avian wildlife species may be found along the corridors or may transit the corridors. Along the Terrestrial Corridor and River Corridor, construction would not be anticipated to cause any significant or long-term disturbance to these species as there are numerous existing sources of anthropogenic noise, light, and odor, and thus individuals found in these areas are taken to be acclimated to human disturbance. In the short-term, terrestrial species individuals or groups proximate to a construction area may alter their behavior as a result of construction activities or the individuals or groups may disperse to adjacent unaffected areas to minimize or avoid being further impacted; these impacts would not be significant. Along the Canyon Bypass, construction would also not be anticipated to cause significant disturbance to any terrestrial species as there is ample space into which individuals can disperse. The installation along the Canyon Bypass anticipated to be relatively short in duration.

Potential direct impacts to nesting avian species would be minimized through the following actions. Vegetation clearing would, to the extent possible, be performed in accordance with USFWS vegetation clearance timing guidance for the area. If vegetation clearing is performed during the time period during which the USFWS recommends avoiding vegetation clearing, pre-construction nesting bird surveys would be performed. Indirect impacts would be reduced by minimizing vegetation removal and trimming to the extent feasible, and by re-vegetation activities following construction. Non-nesting avian species would be expected to disperse to non-affected adjoining areas during construction; given the largely undeveloped nature of the vast majority of the length of the corridors, and the narrow linear area of disturbance presented by the Proposed Action, sufficient areas exist to which avian species can disperse. Therefore, the impact would be low.

No mammalian or fish species identified as BLM Special Status Species are found on lands administered by the BLM that are crossed by the corridors; therefore, no impacts to these species would be realized. Impacts to avian species would be minimized and low as described above.

A variety of migratory bird species and eagles may be found along the corridors either year-round or seasonally. Work would be conducted pursuant to the MBTA and the BGEPA. Vegetation clearing would, to the extent possible, be performed in accordance with USFWS vegetation clearance timing guidance. If that is not possible, then pre-construction nesting bird surveys would be performed, as stated above.

Essential Fish Habitat (EFH) encountered along the River Corridor is migratory habitat for Chinook, chum, coho, and to a much lesser extent, sockeye salmon. The primary impacts to EFH and managed species would be the temporary disturbance of the Yukon River streambed for the cable lay and conduit tie ins. Localized short term increases in turbidity and total suspended solids (TSS) along the in-river alignment and at conduit tie-in locations can also

occur but would remain within typical ranges seen in the river. Potential impacts of water withdrawal on EFH would be immeasurable in terms of volume withdrawn and adherence to screened intake specifications that would be contained in fish habitat permits would reduce the potential for individual fish mortality. An EFH Assessment (EFHA) was prepared and submitted to the National Marine Fisheries Service (NMFS). The EFHA determined that project activities may adversely affect EFH in the project area, however those impacts would be minimal and temporary in nature. On February 14, 2024, the NMFS concurred with this determination based on the adherence to conservation recommendations proposed in the EFHA and best management practices.

Construction along portions of the corridors would occur in wetland habitats. Impacts to wetland habitats cannot be avoided; best management practices—including limiting clearing areas and preserving existing vegetation—would be employed to minimize impacts. Permanent and temporary wetland impacts would be permitted under Nationwide Permit (NWP) 57 (Electric Utility Line and Telecommunications Activities).

No Action Alternative: Under the No Action Alternative, no impacts to biological resources would be generated.

Historical and Cultural Resources

To comply with the requirements of Section 106, a Programmatic Agreement (PA) has been developed by NTIA, in consultation with the Alaska State Historic Preservation Office and other stakeholders, to allow for a phased process to identify, evaluate, assess, and avoid, and/or mitigate project effects on historic properties. The PA contains the following key agreements which, if applicable, must be completed prior to construction:

- Archeological field survey(s) would be completed prior to construction in areas of medium to high probability to contain previously unrecorded cultural resources.
- A Cultural Resource Management Plan (CRMP) that clearly identifies the procedures to follow should cultural resources be discovered. The CRMP also clearly defines steps taken should human remains be identified.

Prior to the initiation for the Section 106 process and development of the PA, public outreach and general project updates have been communicated by Doyon to numerous stakeholders within the region by newsletters. On February 7, 2024, letters were sent to stakeholders initiating consultation under Section 106 of the National Historic Preservation Act.

On April 18, 2024, a draft of the PA was sent to all stakeholders for their review and input. Following publication of the draft PA, a webinar was held for Doyon stakeholders. This meeting provided an update on project status, and key aspects of the PA will be presented. Comments on the draft PA were received from BLM and SHPO on May 18 and 21, 2024, respectively. On July 23, 2024, the PA was finalized.

The Area of Potential Effect (APE) for the entire corridor is divided into land-based and in-river activities. The APE for all land-based activities is centered on the FOC installation alignment centerline with a 30-foot buffer either side of the alignment, 60 feet wide in total. The APE for the all in-river activities is centered on the FOC burial in the bed of the Yukon River, with a 100-foot buffer either side of the centerline, 200 feet wide in total. The APE for the Canyon Bypass is centered on the FOC installation alignment centerline with a 30-foot buffer either side of the

alignment, 60 feet wide total. At stream crossings in the Canyon Bypass, the APE is 100 feet wide at the streambank edge, 50 feet each side of the centerline, narrowing to 60 feet, 30 feet each side of the centerline, 100 feet beyond the stream bank. The Alaska Heritage Resources Survey (AHRs) database listed 40 cultural resources located within the APE; of these cultural resources, 14 have been determined eligible for, or listed on, the National Register of Historic Places (NRHP); 22 have been determined not eligible; and 4 (four) properties are listed on the AHRs database but do not contain a Determination of Eligibility (DOE).

The majority of known AHRs sites within the APE are located within the Terrestrial Corridor. Of the 14 known cultural resources that have been determined eligible for, or listed on the NRHP, 13 are located with the APE along the Terrestrial Corridor. A "Recommend No Adverse Effects Finding" determination has been made for each. One NRHP eligible site, the Rampart Historic District (TAN-00008), was identified along the River Corridor in Rampart; it has not been recorded in detail. Landfall and the placement of BMHs and aerial installation of the FOC are not expected to have an adverse effect on any contributing elements to the Rampart Historic District. Known cultural resources within the communities would be avoided, and thus no adverse effects are anticipated to any cultural resources.

During the laying of the FOC in the Yukon River, multibeam sonar (MBS) scans would be performed to maintain a course over the thalweg of the Yukon River. Obstacles revealed by the MBS imagery as riverbed anomalies would be avoided—such obstacles may include boulders, submerged logs and natural debris, and possibly cultural materials (e.g., skiff sized boats, larger shipwrecks, fuel drums). Avoidance assures that if any of the anomalies are submerged cultural resources, the preferred action would not impact them; therefore, no adverse effects are anticipated to any cultural resources.

Along the Canyon Bypass Corridor, the GIS-based probability analysis performed for the Proposed Action indicated that approximately three-fourths of the nominal length of the Bypass present a medium to high probability for the presence of archaeological sites. Prior to construction, the Canyon Bypass Corridor would be subject to a pedestrian archaeological survey as outlined in the PA; identified resources would be avoided through minor re-routing. Therefore, no adverse effects are anticipated to any cultural resources.

During the operations phase, activities may be necessary to repair the FOC. The potential effects on historic and cultural resources would be identical to those identified for the construction phase as these operations-phase activities would occur in the same locations where construction would occur.

No Action Alternative: Under the No Action Alternative, no effects to cultural and historical resources would be generated.

Subsistence

Temporary, short-term, less than significant impacts to subsistence use of the lands and waters along the corridors would be realized during construction. Given its remote location, subsistence use of lands along the Canyon Bypass is taken to be de minimis. Along the terrestrial corridor, harvesting of berries along the highway would be temporarily impacted from the movement and staging of equipment or from clearing vegetation. Road pullouts and parking may be limited during construction and some brush would be removed or made inaccessible during installation of the FOC. Work and the staging of equipment at the Yukon

River Camp and adjacent boat ramp, which are used extensively in the fall, would be avoided during this period, and thus only less than significant impacts to subsistence would be realized along the Terrestrial Corridor.

Impacts to subsistence from the river installation of the FOC would be minor and temporary. The equipment would be moving very slowly in the deep-water channel of the river. The position and slow movement of the equipment would not impact the migration of salmon that use the shallower, slower water of the Yukon River for their upstream migration. Subsistence fishing and fishwheels are conducted in the near shore waters where there would not be any construction equipment except the specific locations of the HDD transitions to the river FOC. Subsistence users would have to avoid the construction equipment as it moves downstream but would not restrict access to the shoreline to conduct subsistence activities.

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.

Infrastructure

The Proposed Action would result in no significant adverse direct or indirect impacts to existing infrastructure. Installation and operation of the broadband infrastructure represents a significant positive impact to the infrastructure in the region, including improved access to telehealth and emergency services access infrastructure.

The Project Proponent would coordinate with the owner(s) of existing utility poles to ensure the installation of the FOC does not adversely affect the loading or stability of the poles. To avoid impacts to existing buried utilities or infrastructure, the Project Proponent would utilize 811/Alaska Digline to identify buried utilities in the ROWs prior to any construction activities. A major utility permit from the Alaska Department of Transportation and Public Facilities is also required. Where construction would occur adjacent to or within any road, traffic control measures would be utilized to ensure the safety of the construction crew and public. The Project Proponent would coordinate with the BLM and the operator of Yukon River Camp prior to construction to minimize disruptions to the use of the boat ramp and to avoid access disruptions to Yukon River Camp; the Yukon River Camp and the boat ramp area is largely disturbed, thus providing flexibility to install the FOC in locations that would minimize disruptions.

No Action Alternative: Under the No Action Alternative, the significant positive impact to the infrastructure in the region resulting from installation and operation of the broadband infrastructure would not be realized, nor would the socioeconomic and human health benefits addressed below. Overall, if the proposed fiber optic cable is not constructed and operated, there would be a significant adverse impact to the study area because of the lost opportunities for improved quality of life the new cable would provide to residents and communities.

Socioeconomic Resources and Environmental Justice

Potential effects of the Proposed Action on the existing economic and social environment would derive from any substantial changes to education, employment, income, population, housing, infrastructure and utility use, access, social factors, and lifestyle. There would be short-term beneficial effects from construction. During the time that the system is operational, significant beneficial effects would be realized from the availability of the hard-wired broadband internet connectivity, including creating new permanent employment; providing new opportunities for distance education, telemedicine, public health and safety, and rural economic development; providing an essential tool for cultural survival acting as a hub for language preservation; and connecting youth and adults with Alaska Native Elders, mentors, and networking resources.

The Proposed Action would not result in disproportionate impacts to the EJ populations along the Terrestrial or River corridors. Access to and the significant positive benefits associated with the new high-speed broadband network would be available to all residents including the EJ populations within the affected communities.

No Action Alternative: Under the No Action Alternative, the significant beneficial effects realized from the availability of the hard-wired broadband internet connectivity addressed above would not be realized. Overall, if the proposed fiber optic cable is not constructed and operated, there would be a significant adverse impact to the study area because of the lost opportunities for improved quality of life the new cable would provide to residents and communities.

Health and Human Safety

There are no anticipated conflicts with, or impacts to, human health and/or safety as a result of construction, operation, or maintenance of the components of the Proposed Action. The Proposed Action may, in some instances, reduce potential impacts to human health and safety. Reliable hard-wired broadband access would facilitate access to telemedicine services and distance education opportunities, for instance; improved access to medical professionals and increased rates of education are both key to improved overall health and wellbeing. Access to telemedicine services for acute conditions or emergency situations may improve survivability in these remote communities. Further, broadband access may improve cross-generational and cross-community interactions, improving the communication of traditional knowledge and promoting increased individual and community-level wellbeing.

No Action Alternative: No human health and safety-related impacts beyond those currently present would be realized under the No Action Alternative. Overall, if the proposed fiber optic cable is not constructed and operated, there would be a significant adverse impact to the study area because of the lost opportunities for improved quality of life the new hard-wired broadband internet connectivity would provide to residents and communities.

Cumulative Impacts

The Proposed Action 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 Proposed Action activities. While additional construction projects are anticipated to occur in proximity to the Proposed Action,

they are not expected to influence the Proposed Action 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 Proposed Action are anticipated to be beneficial. The Proposed Action would provide underserved communities with technological opportunities that would promote education, health, the economy, and the well-being of Alaskan residents.

Public Comment

NTIA completed a public comment period for the Alaska FiberOptic Project EA. The public comment period began on April 29, 2024, and ended on May 29, 2024. Public notice was placed in advertisements in the Fairbanks Daily News-Miner in print and online. NTIA also posted a notice on their website for the EA and directions on how to comment.

Public notice(s) were posted in Fort Yukon, Beaver, Stevens Village, Rampart, and Tanana that contained similar language to the newspaper advertisement. The notices were placed on public notice board(s) in community buildings and at each community's post office. The notice also informed community members that a copy of the EA is available for review and that they can obtain a copy of the EA on an external USB drive, supplies of which were provided to each community. A liaison in each community, such as a community leader, was identified to ensure the availability of the EA. Notice to stakeholders was provided via email.

NTIA received comments from the United States Coast Guard, National Oceanic and Atmospheric Administration, United States Fish and Wildlife Service, and the Alaska Department of Fish and Game. Comments, as applicable, were addressed in the EA. 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 Proposed Action and will be solely responsible for obtaining any new or revised permits and/or approvals needed to deploy, operate, and maintain the Proposed Action.

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 July 23, 2024, by:

AMANDA PEREIRA
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