

Attachment 1 - Development Plan ADL# 234755

Alaska FiberOptic Project – Lower Kuskokwim River

Project Contact Information

Calista Corporation (Calista), in cooperation with Alaska Communications (ACS), has retained Owl Ridge Natural Resource Consultants, Inc. (Owl Ridge), to provide environmental and permitting support. Below is the agent contact information.

Agent	Owl Ridge Natural Resource Consultants, Inc.
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General Project Description

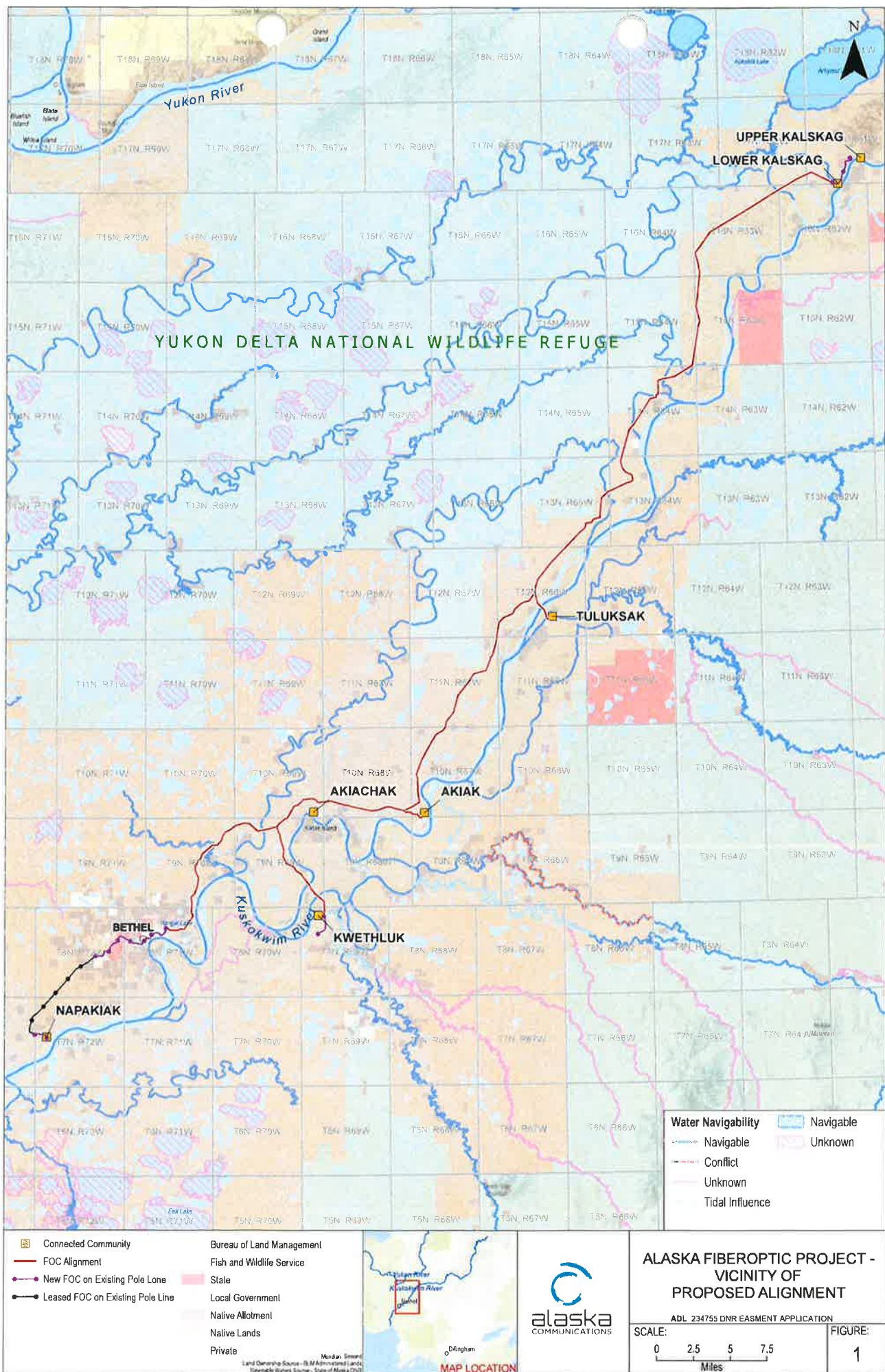
Calista, in coordination with ACS and the National Telecommunication and Information Administration (NTIA), proposes to construct and operate the Alaska FiberOptic Project – Lower Kuskokwim River (Project). The Project will utilize funding provided by a grant from the Tribal Broadband Connectivity Program to provide broadband access to a portion of the area within its Alaska Native Regional Corporation Boundary that is underserved by broadband internet. Calista proposes to provide broadband internet service to seven communities along the Kuskokwim River: Upper Kalskag, Lower Kalskag, Tuluksak, Akiak, Akiachak, Kwethluk, and Napakiak.

The Project's purpose is to connect the approximately 881 households in these seven underserved, predominantly Alaska Native communities to a reliable and affordable high-speed broadband network. There is a growing need for a fiber optic network that links rural Native Alaska communities to broadband to improve economic, educational, and social opportunities in these remote communities. There is also a need to provide enhanced access to healthcare, improved public safety measures, and the preservation of cultural heritage through increased social connectivity. The absence of reliable highspeed internet severely limits opportunities for job creation, economic diversification, and educational advancement. The proposed network would bridge the digital divide in some of the most remote, isolated, high-cost, and difficult to serve areas of the United States.

The Project would install approximately 125 miles (mi) of new FOC from Napakiak (southern terminus) to Upper Kalskag (northern terminus) (Figure 1). The Project is divided into two corridors: the Napakiak–Bethel Corridor and the Kuskokwim Corridor. Construction of the approximately 10.1-mile-long Napakiak–Bethel Corridor includes placement of two new communications

shelters, installing approximately 2.4 mi of new fiber to the premise (FTTP) throughout Napakiak, and hanging approximately 7.7 mi of new FOC within the community of Bethel. No construction will be completed within the existing approximately 8-mile-long Napakiak Ircinraq Power Company pole line that extends from Bethel to Napakiak. The power utility has granted Calista an Indefeasible Right of Use, allowing Calista to lease fiber from them.

The Kuskokwim Corridor originates as the FOC transitions out of Bethel and extends north to Upper Kalskag. The proposed FOC alignment is located on the right (west) side of the Kuskokwim River. The use of right and left sides is based on the direction that the water flows. Approximately 95 mi of direct buried single armored FOC would be installed in the Kuskokwim Corridor; approximately 19.5 mi of FTTP FOC would be installed in the served communities. Current estimates of overall FOC installations are preliminary and will be refined in December 2025.



Land Status

The majority of the surface estate the Project is located on is owned by Native village corporations and includes: Akiachak, Limited, Kokarmuit Corporation, Bethel Native Corporation, Kwethluk, Incorporated, The Kuskokwim Corporation, Napakiak Corporation, and Tulkisarmute, Incorporated. Calista owns the subsurface estate.

Land managed by the DNR is limited to the lands below navigable waterbodies within the project corridor where horizontal directional drilling (HDD) activities are proposed. Additional land ownership will be further identified as FOC alignment is refined within each community. Consultation with the Alaska Department of Transportation and Public Facilities (DOT&PF) as well as municipal entities, Native corporations, and private landowners is anticipated.

1. State Lands Project Activity

1.1. Legal Description of State Lands within the River Segment

See Table 1 for the legal description of State land within the project area.

1.1.1. State Navigable Waters

Review of the DNR online Navigable Waters Mapper identified 9 navigable waterbodies that are crossed by the FOC alignment (Appendix A). Table 1 outlines the waterbody name, location, approximate bore diameter and distance of the HDD, and the season of installation at each navigable waterbody crossing.

1.2. Term Requested and Rationale

Calista Corporation (Calista) is requesting an indefinite easement term. The rationale for an indefinite easement term request is consistent with the project purpose, which is to provide reliable, affordable, scalable, and future-proofed high-speed broadband network to seven underserved, predominantly Native communities along the Kuskokwim River into the foreseeable future. The scope and scale of the project requires that this type of easement be indefinite.

1.3. Terrain / Ground Cover

State impacted lands are limited to the lands below navigable waters. Surrounding terrain is relatively flat ground consisting of lake-dotted marshy plains rising from sea level with many small tributaries flowing into the Kuskokwim River. The Kuskokwim River is a major river system in western Alaska. Hydrologically, the Kuskokwim is a low-gradient, meandering river for most of its length, with seasonal discharge variations influenced by snowmelt and rainfall.

The riverbed composition varies along the course of the Kuskokwim River. The middle and lower reaches of the Kuskokwim River are comprised of a broad alluvial channel characterized by sand, silt, and fine gravel substrates, with numerous braided channels, sloughs, and sandbars. In the delta region, near Bethel and downstream to Kuskokwim Bay, the river becomes tidally influenced, with a muddy and silty bottom typical of lowland estuarine environments. The lower reaches of tributaries near their confluence with the Kuskokwim are likely to have similar substrates to the Kuskokwim River (Alaska Division of Geological & Geophysical Surveys 1989 & Dupré 1980).

1.4. Access and Materials / Equipment Staging

Equipment used on DNR-land includes a HDD rig and involves installation of new casing and conduit under the riverbeds. The drilling rig will be staged, operated, and terminated on lands adjacent to DNR managed lands. No heavy equipment will operate below the ordinary high-water mark. Borings under the Kuskokwim River and Kuskokuak Slough will be completed from the east (left) side of the river during the summer. All other borings will be completed as the FOC is installed during the winter.

All materials, construction equipment, and personnel would be staged from Bethel or one of the served communities. Wherever feasible, existing heavy equipment already present in these locations would be used during construction. There will be no restrictions to access/movement along the waterways.

1.5. Buildings and Other Structures

All major stream crossings will be installed using HDD. New casings and conduit would be bored a minimum of 10 ft below the bottom of the streambed or riverbed with no impact to the watercourse (Figure 2). The HDD bores drilled under most waterways are estimated to be small (6 inches in diameter) and short (less than 1,000 ft); the bores under the Kuskokwim River and Kuskokuak Slough would be larger (8 inches in diameter) and longer (~1,500 ft to ~3,200 ft). Evaluations are currently being conducted to identify all HDD locations throughout the corridor. Currently only HDD under navigable waters is identified in the current mapping (Appendix A).

To install the casings/conduit under a streambed or riverbed, bore pits would be excavated in areas adjacent to both sides of the waterway to be crossed. Temporary rig matting would be used to limit ground surface disturbance. All HDD related activities will be set back a minimum of 20 ft from the ordinary high-water mark. The HDD equipment would be staged adjacent to one of the bore pits, and the drill would bore beneath the streambed or riverbed to then exit at the other bore pit. Following the drilling of the bore, the casing and/or conduit would be installed in the bore. For the Kwethluk, Akiak, and Tuluksak spurs, two FOCs would be installed in a single conduit. Prior to FOC installation in the conduit, field tests would be conducted using a mandrel/soft conduit pig to confirm the HDD conduit is free from obstructions prior to cable operation.

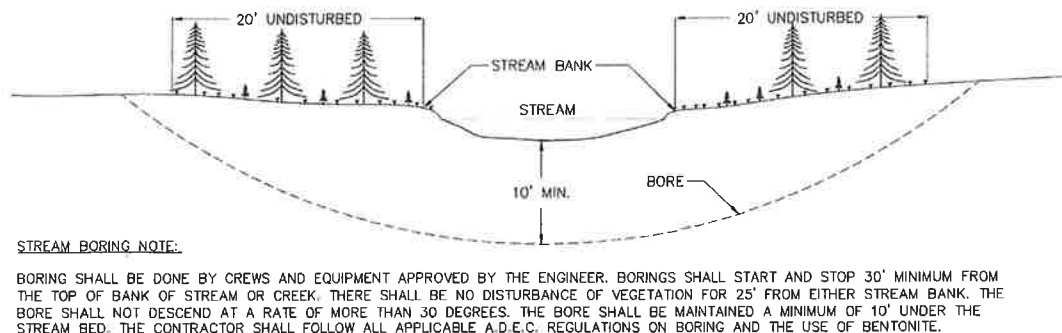


Figure 2. Typical HDD river crossing cross-section.

An eight-person crew would complete the HDD work. Standard operating procedures would be implemented during all HDD activities. Prior to deployment, the drilling rig would be thoroughly washed to prevent transmission of invasive plants; the bore pit would be stabilized with earthen berms to prevent any offsite runoff from drilling operations; and the work area would be surrounded by a silt fence.

No temporary or permanent above-ground structures associated with the HDD bore would be installed.

1.6. Power Source

Construction: Portable generators will meet power needs during construction.

Operation: Electricity is necessary to power equipment in each community served and will be connected to local service, but the FOC itself is an unpowered system.

1.7. Waste Types, Waste Sources, Disposal Methods

HDD cuttings and drilling fluids used during HDD activities are water-based materials with no hazardous components as defined by the Resource Conservation and Recovery Act (RCRA). No additional additives would be used during HDD. Minimal drilling fluid would be dispersed into the environment at the bore pits. Cuttings and drilling mud, which are comprised of bentonite and native material would be disposed of at a designated site. Safety data sheet information would be available for each HDD drill site and would be kept on-site for the duration of the drilling work.

1.8. Hazardous Substances

All HDD will be initiated and terminated on uplands adjacent to DNR managed shorelands beneath navigable waterbodies. No fuel, lubricants or fluids will be stored on DNR managed lands. All stationary fuel tanks and fuel transfers would use best management practices (BMPs) with secondary containment. A Spill Prevention, Control, and Countermeasure (SPCC) Plan (40 CFR 112) would be prepared and maintained for construction- and operation-related fuel storage and would be provided to agencies prior to construction.

1.9. Water Supply

Water is needed for HDD related activities. A Temporary Water Use Authorization will be obtained from DNR prior to drilling.

1.10. Parking Areas and Storage Areas

Not applicable.

1.11. Number of People Using the Site

Approximately eight personnel will be working at the waterbody crossing sites at any given time. There will be one site supervisor and seven employees. Once the FOC is installed no further access will be required except during regular or emergency maintenance.

Existing community infrastructure will be used to support project activities in each of the local communities. Construction or placement of a camp is not anticipated.

1.12. Maintenance and Operations

Calista, through an agreement with Alaska Communications, will be responsible for the operation and maintenance of the FOC.

1.13. Closure / Reclamation Plan

Not applicable.

2. Construction on Adjoining Lands

Construction on adjacent lands to support the project will occur on land owned by Calista and several Native Corporations including Akiachak, Limited, Bethel Native Corporation, Kwethluk, Incorporated, The Kuskokwim Corporation, and Tulkisarmute, Incorporated. There are no native allotments within 500 ft of the proposed DNR requested easement locations. Construction will also occur in each of the seven communities, impacting municipal land and land owned by the DOT&PF.

2.1. Authorizations to Access Adjoining Lands

Requests and approvals to access lands adjoining the proposed DNR requested easement areas are currently being obtained and will be provided to DNR upon receipt.

2.2. Permitting

A permitting matrix is attached (Appendix B).

3. Non-State Lands Project Activity

An environmental assessment (EA) is currently being drafted outlining detailed project activities and any potential environmental impacts. The federally required EA will be made available for public review by the applicant prior to construction.

4. References

- Alaska Division of Geological & Geophysical Surveys (DGGS). 1989. Material studies along Kuskokwim River, southwestern Alaska. Public Data File 89-16. Fairbanks, AK.
https://dggs.alaska.gov/webpubs/dggs/pdf/text/pdf1989_016.pdf.
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