Draft Compatibility Determination

Title

Draft Compatibility Determination for Right-of-Way for Fiber-Optic Cable installation, Selawik National Wildlife Refuge.

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

Rights-of-way (utility). The right to use and possibly alter the landscape through construction, maintenance, and operation of water or fuel pipeline, power line, telecommunications line or tower, or other utility.

Refuge

Selawik National Wildlife Refuge

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

As stated in the Alaska National Interest Lands Conservation Act (ANILCA) (Public Law 96-487) Section 302 (7) (B), the purposes for which Selawik National Wildlife Refuge (Refuge) was established and shall be managed include:

> (i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Western Arctic caribou herd (including participation in coordinated ecological studies and management of these caribou), waterfowl, shorebirds and other migratory birds, and salmon and Sheefish;
>
> (ii) to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats;
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> (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
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> (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in subparagraph (i), water quality and necessary water quantity within the refuge.

ANILCA Section 702(12) designated approximately 240,000 acres as the Selawik Wilderness. Section 102(13) of the act clarifies the term "wilderness" has "the same meaning as when used in the Wilderness Act." The purposes of the Wilderness Act are additional purposes of the designated Wilderness portion of the Refuge.

ANILCA Sections 602(41) and 605(a) designated that portion of the Selawik River from a fork of the headwaters in township 12 north, range 10 east, Kateel River meridian to confluence of Kugrarak River; within the boundaries of the Selawik Refuge as a wild river pursuant to the Wild and Scenic Rivers Act (WSRA), as amended by ANILCA Section 606. The purposes of the WSRA are to ensure: "certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations."

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System (NWRS) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife,and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No

What is the use?

Right-of-way (utility). The right to use and alter the landscape through construction, maintenance, and operation of a telecommunications line.

NANA Regional Corporation Inc. (NANA) would construct, operate, maintain, and decommission, a fiber optic cable (FOC) network on the Refuge.

Is the use a priority public use?

No

Wildlife-dependent recreational uses, including hunting, fishing, wildlife observation and photography, and environmental education and interpretation are the priority public uses identified in the National Wildlife Refuge System Improvement Act of 1997 (Pub. L. 105-57; 111 Stat. 1252; 16 U.S.C. §§ 664, 668dd, and 668ee).

Where would the use be conducted?

The proposed use evaluated in the Compatibility Determination is described as Alternative 2 in the NANA Region Middle Mile Fiber Optic Project Environmental Assessment, EAXX-006-60-3D-1754935958, (EA) prepared by the National

Telecommunications and Information Administration (NTIA) and the subsequent Finding of No Significant Impact (FONSI) dated December 18, 2025.

A 60' wide right-of-way (ROW) would be granted for construction, operation, and maintenance of the FOC network. The ROW would be up to 77 total miles long and encompass up to 567 total acres (Figure 1). Three ROW segments would be granted (Figure 1), including:

1. Segment 1: approximately 12 miles (90 acres) between the communities of Noorvik and Selawik;
2. Segment 2: approximately 2 miles (15 acres) along the southeast shore of Selawik Lake;
3. Segment 3: approximately 63 miles (461 acres) between communities of Selawik and Ambler;

The ROW would traverse a representative cross-section of the Refuge's dominant landcover types. The most prevalent among these are dwarf birch–tussock tundra, dwarf birch–ericaceous tundra, dwarf birch–willow low shrub tundra, and sedge fens and wet meadows. In addition, the route intersects a variety of less common landcover types associated with riverine and upland habitats, including alder tall scrub, white spruce forest, poplar forest, willow scrub, and riverine gravel barrens. Of note, the northeastern portion of the Refuge contains white spruce–lichen woodlands underlain by stabilized sand dunes. While these are not distinguished in current landcover mapping products, high-resolution satellite imagery suggests that the proposed route likely intersects this unique and ecologically significant vegetation type.

The ROW would intersect approximately 230 streams, rivers, and lakes, and mostly occur within wetlands. Major rivers crossed within the Refuge borders include the Kobuk River, Singuaruk River, Fish River, and Kugarak River.

The ROW would traverse important habitat for species and species groups named in refuge purposes and/or identified as priority resources of concern, including caribou, scoters, white-cheeked geese, waterfowl, shorebirds, other migratory birds, salmon, sheefish, whitefish, and northern pike.

How would the use be conducted?

Within the refuge borders, the FOC route would incorporate a combination of terrestrial ground-laid, trenched, directionally bored, and aerial cable placement methodologies. The majority of the network would consist of ground-laid fiber (GLF). GLF would be placed directly on the snow across refuge lands and waters and would be allowed to settle naturally into vegetation and waterbodies during spring thaw. This relatively new technique has been deployed between Utqiagvik and Atqasuk on the western Alaska North Slope where the predominant land cover is arctic tundra,

transitioning from a wet coastal tundra to a slightly drier shrub-sedge tundra inland, with relatively few stream crossings. Cable anchors would be placed at splice points, elevation transitions, on either bank of stream and lake crossings, and at regular intervals of up to 6,000 feet along the route. Construction of GLF sections of the network would involve transiting the refuge using snowmobiles and heavy equipment such as PistenBully 600s, D6 dozers, tractors, excavators, and trailers. Trees, shrubs, and other vegetation above snow level would be cleared to allow for transit of equipment and for the FOC to drop to ground level. Width of vegetation clearing within the ROW would be 10-30 feet. Trenching would be required at up to 10 water bodies where the angle of the bank is too steep to allow for the cable to follow the natural contour. Trenching at water bodies would involve use of an excavator to create a trench approximately 12 inches wide, and 10 feet long, on each bank to ease the angle of entry of the cable onto winter ice. Trenches would be backfilled with original material after cable is installed. Crews would be housed in mobile units on trailers hauled by equipment.

Large rivers would require the cable to be routed aerially above the river or under the river bed using directional boring. Aerial crossings would be constructed at approximately 4 locations within the refuge borders, with up to three crossing occurring on refuge-owned lands (Kugarak River, Kuchuk Creek). At aerial crossings, a support structure consisting of up to three, 35-45 foot-tall treated wooden poles and guy-wires would be constructed on both sides of the river. FOC would be strung between the support structures, at least 20' above the bank elevation. Construction of aerial crossings on refuge lands would occur during the winter and would involve the use of drilling equipment to bore holes for placement of poles.

Directional boring would be required at up to 4 locations within the refuge border (Kobuk River channels). Construction activities would take place on private lands adjacent to the rivers. Boring locations would be accessed by barge. HDD methods require use of local water sources, ranging from 200 – 1,000 gallons for each individual crossing. These would be withdrawn from the local waterbody. A horizontal directional drilling (HDD) rig would be used to install 2-inch diameter conduit approximately 4 feet beneath the riverbed. FOC would be pulled through the conduit.

On private lands in and adjacent to communities within the refuge (Noorvik, Selawik), FOC would be buried and/or strung aerially on existing poles.

After construction, annual maintenance would include at least one low-level (less than 500' above the ground) overflight of the ROW using helicopters and/or fixed wing aircraft to inspect for damage or potential network vulnerabilities. Helicopter landing numbers are unknown as they are dependent upon assessment of damage or vulnerabilities.

When breaks in the FOC occur, damaged sections would be spliced together. Replacement sections of cable would be spliced into the network when damage or

network vulnerabilities occur over an extended length of FOC. Method of access for repairs would depend on factors including location(s) of damage, extent of damage, and time of year. For small repairs, access via helicopter or snowmachine may be adequate. For larger repairs, including repairs to aerial crossing structures or HDD segments, access via equipment similar to what was used for construction would be required.

Decommissioning of the system would require removal of visible structures on, at, or above the ground surface, including aerial crossing structures and portions of the FOC that did not settle into the ground. To avoid further ground disturbance, buried FOC and anchors that have settled into the ground would be left in place.

When would the use be conducted?

Construction activities would occur on refuge lands during the winter (November-April) during periods of adequate snow cover and frost depth. Construction activities on private lands within the refuge border would occur during winter and summer. Total time for construction activities within the refuge border is not expected to exceed 180 days. Scheduled annual maintenance and low-level overflights, including initial adjustments to alignment, would occur during the summer months (June-August). The ROW infrastructure would occupy the Refuge year-round for 20 years. Repairs could occur at any time during the year. Activities associated with decommissioning of the line would primarily occur during the winter.

Why is this use being proposed or reevaluated?

NANA received a $65,168,000 grant from NTIA under the Tribal Broadband Connectivity Program (TBCP) to develop the NANA Regional Broadband Network Project that would provide broadband internet to eight rural, underserved and unserved, predominately Alaska Native communities in the Northwest Arctic Borough, Alaska, including Ambler, Buckland, Deering, Kiana, Kivalina, Kobuk, Noatak, and Shungnak. Additionally, the proposed project would provide additional broadband capacity to the communities of Noorvik and Selawik. The project was accepted as a FAST-41 project under the Fixing America's Surface Transportation Act, with NTIA identified as the lead agency.

NANA submitted a ROW permit application to the U.S. Fish and Wildlife Service (Service) for a transportation and utility system (TUS) to cross the Refuge. The Service responds to TUS applications in accordance with Title XI of the Alaska National Interest Lands Conservation Act (ANILCA) (16 USC §§3161-3173) and the National Wildlife Refuge System Administration Act as amended by the National Wildlife Refuge System Improvement Act (16 USC 3101, 664, 668dd and 668ee and 43 USC 666).

The Service identified potentially economically feasible and prudent alternative

routes for consideration that could result in fewer or less severe adverse impacts to the Refuge. Alternatives include routing through State of Alaska managed waterways, across lands owned by NANA, and across lands of Kobuk Valley National Park. NTIA, as the FAST-41 lead agency, assumed responsibility for completion of the EA to meet National Environmental Policy Act (NEPA) requirements for all Federal agencies involved in the permitting process. A single "purpose and need" statement for the project was developed for the EA. Some alternatives that would result in fewer or less severe adverse impacts to the Refuge did not meet the shared purpose and need and were not analyzed in detail in the EA. This Compatibility Determination focuses only on alternatives considered for detailed analysis in the EA.

Availability of Resources

Resources would be required for administration, monitoring, and coordination of the use to ensure that it does not interfere with or detract from fulfillment of Refuge purposes and the mission of the NWRS, and to ensure that the use is conducted within the terms and conditions of the ROW permit. Administration, monitoring, and coordination would occur prior to construction, during construction, on an annual basis throughout the life of the network, and during decommissioning of the network. An accurate estimate of the resources required for administration, monitoring, and coordination related to the use is limited by uncertainty around the timing and frequency of required repairs to the system and uncertainty associated with the rapid environmental change in the region which could affect infrastructure reliability and present unexpected challenges to achieving Refuge purposes and mission of the NWRS.

Administrative activities include review of application materials, preparation of NEPA documentation, documenting compliance with applicable laws (eg. ANILCA, National Historic Preservation Act, Endangered Species Act, Wilderness Act, Wild and Scenic Rivers Act, etc.), preparation and execution of a ROW authorization, reviewing annual operating plans and annual reports, and development and review of additional plans, as needed.

Monitoring for compliance with permit conditions would be required, as well monitoring for impacts to fish, wildlife, habitats, subsistence opportunities, water quality, and wildlife dependent recreational activities. Monitoring activities include development of monitoring protocols, data collection, data analysis, and report development. Equipment required for field monitoring include snowmachines, boats, aircraft, and field gear for winter and summer operations.

Winter (November through April) field monitoring would typically include the following activities: monitoring snow and frost depths and stream and river ice thickness to determine adequacy for allowing travel in the ROW; regular inspection of construction activities with a focus on vegetation clearing and ground-disturbing activities, such as trenching, drilling, and digging; and inspection of maintenance activities. Monitoring snow and ice conditions would typically begin in November and

continue until conditions are adequate for opening to travel, and would restart in March to assess timing for closure. Snow and ice monitoring would occur as needed for the life of the ROW permit. Monitoring construction activities would require a dedicated presence to ensure compliance with the permit and to identify any potential environmental damage for follow-up in the summer season and for long-term monitoring. Monitoring maintenance activities and operations would occur as needed in the winter. At least one winter field monitoring trip is anticipated each year.

Summer (June through August) field monitoring activities would typically include conducting a low-level flight in a helicopter to assess environmental conditions and identify potential environmental damage in the ROW. Additionally, the ROW would be accessed for monitoring of fish and wildlife populations and habitats within or traversing the ROW. A minimum of two days of helicopter to fly the route each season for the life of the permit would be necessary. Over-flights would typically be conducted during the maximum phase of vegetation growth at the end of July. Additional boat-based and pedestrian monitoring efforts would occur as needed.

Coordination would be required in all phases (construction, operation, and decommissioning) of the project and in conjunction with administration and monitoring activities. Coordination would occur internally within the NWRS at regional and national levels, and externally with NANA and companies working on it's behalf, other Federal agencies, Tribes, the State of Alaska, and local governments. Additionally, public outreach and responding to public concerns would be required.

Field staff that would participate in the above activities include: Refuge Manager, Deputy Manager, Wildlife Refuge Specialist, Biologists, Outreach Specialist, Refuge Information Technician, and Maintenance Workers. Additional support would be required from regional staff, including Realty Specialists, Planners, Biologist(s), Archaeologists, and Pilots/Aviation experts. Current field staffing levels are not adequate to address all administrative, monitoring, and coordination tasks required to ensure compatibility of the use, while also continuing to administer other Refuge uses directly related to fulfillment of Refuge purposes and the mission of the NWRS.

The Refuge currently has adequate snowmachines, boats, and field gear for monitoring activities, however yearly upkeep and replacement of equipment would be required. Costs associated with aviation needs have increased, and there is uncertainty about availability of Service aviation resources and funding for contracted aviation resources, which would be required for access to the ROW during spring, summer, and fall.

At present budget and staffing levels, the direct and indirect costs of administration, monitoring, and coordination associated with the use would interfere with and detract from the fulfillment of Refuge purposes and mission of the NWRS. Mechanisms for recovering costs would be necessary to ensure continued fulfillment of purposes and mission.

Table 1. Estimated cost to administer right-of-way for the NANA Regional Broadband Network.

Category and Itemization	One-time Cost	Recurring Annual Expenses
Staff time and incidentals for administration and coordination	$96,000 – Initial permitting costs, recovered from NANA through agreement	$12,000 – review annual plan of operations, monitoring reports, administer ROW requests (60 hours approximately)
Construction monitoring	$256,000 (1,280 hours approximately)	--
Staff time for monitoring	--	$40,000 (200 hours approximately)
Average annual monitoring expenses (excluding FTE staff time)	--	$20,000 – helicopter use and availability $5,000 –equipment average over 20-years
Total expenses	**$352,000**	**$72,000**

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

Western Arctic Caribou Herd

The Refuge is important wintering and migratory habitat for the Western Arctic Caribou Herd (WACH). The WACH is one of the Refuge's identified Special Values (CCP, page 1-14). The WACH population has been declining since the early 2000's, with most recent population estimate of approximately 121,000, down from a high of 498,000; a population decrease of approximately 76%. The entirety of the proposed ROW would occur within the wintering and migratory range of the WACH. Presence of the fiber optic cable, anchors, and aerial crossing structures is not likely to significantly affect caribou abundance or distribution. Presence of construction equipment, personnel, and aircraft would temporarily displace caribou.

Displaced caribou may expend extra energy while avoiding human activity. Changes to caribou habitat from intentional vegetation clearing and unintentional impacts to vegetation from use of equipment during construction and repairs are likely to occur, however the amount of habitat affected in relation to available habitat is small, and habitat changes from the use are not likely to significantly affect the overall population or distribution of caribou.

Waterfowl, shorebirds, and other migratory birds

The Refuge is important nesting and migratory habitat for migratory birds. Wetlands and waterfowl are one of the Refuge's identified Special Values (CCP, page 1-14). Aerial wires at river crossings would cause mortality of migratory birds, especially during low-visibility conditions. The introduction of aerial wires over streams and rivers and removal/disturbance of vegetation would result in a long-term loss of migratory bird habitat. Nesting birds would be flushed by low-level helicopter traffic and other activities occurring during the nesting period, including scheduled or emergency maintenance.

Salmon and sheefish

The Kobuk River Delta, within the Refuge, provides critical habitat for chum salmon and sheefish migrating to spawning areas upstream of the Refuge. The delta also provides habitat for juvenile fish. The Selawik River, entirely within the Refuge, provides critical habitat for migrating and spawning sheefish. Sheefish are economically and culturally important in the northwest Alaska, and all sheefish in the region rely on Refuge waters. Whitefish spawning habitat in the upper Selawik and Fish rivers is one of the Refuge's identified Special Values (CCP, page 1-14). Construction and operation of the project presents risks of water contamination and sedimentation, which could affect adult or juvenile sheefish and salmon, however potential for sedimentation or contaminant release at levels that would have population-level effects on these species is not expected.

Conservation of other fish and wildlife populations and habitats in their natural diversity

Temporary displacement of fish and wildlife would occur during construction, maintenance, and decommissioning of the FOC network, however changes to overall fish and wildlife populations are expected to be minor as a result of the proposed use.

Within the ROW corridor vegetation extending above the surface of the snow would be cut, mowed, or trampled. Most vegetation clearing would occur along the edges of lakes, streams and rivers. Habitat along the corridor would also be altered if equipment used for construction or repairs unintentionally contacts vegetation or

soils. Habitat changes due to removal of vegetation and over-land travel would be minimal in comparison to the overall acreage of available fish and wildlife habitat of the Refuge. A linear corridor of altered habitat would be visible on the landscape and would result in minor changes to wildlife movements and behaviors.

Wildfires occur in and around the proposed ROW corridor and contribute the natural diversity of the landscape. Changes to fire behavior as a result of the project have the potential to impact the habitat of the Refuge. Vegetation removal along the ROW corridor could act as a fire break preventing spread of natural fire across the ROW. Changes to fire-management strategies aimed at protecting infrastructure on the Refuge could also significantly alter the natural diversity of Refuge habitats, though project plans do not currently propose or suggest that fires within or near the ROW need to be extinguished.

The long-term presence of infrastructure would change the landscape in some portions of the Refuge. For example, visible change would occur through forested areas where trees and shrubs are removed, creating an artificial linear corridor; operation of equipment across vegetated sand dunes could decrease stability of dunes; aerial wires, poles, and support cables would result in changes to habitat use by wildlife; and trenching along waterbodies would increase rate of erosion. Some changes would be irrevocable and/or could create or contribute to new, unanticipated habitat dynamics. Rapid environmental change is occurring in the region and GLF is untested in the Refuge environment at the proposed scale, creating uncertainty about the relative reliability of the system. Remediation would be required to restore refuge habitats at the end of the permit term.

Treaty obligations

Migratory bird treaties provide clear mandates for identifying and protecting important habitats and ecosystems, and for protecting and managing individual species. Impacts of the proposed use on migratory birds are described above. The proposed use is not expected to affect the Refuge's ability to fulfill international treaty obligations.

Subsistence opportunity

The communities most impacted by the proposed use of Refuge lands and waters are Selawik, Noorvik, Ambler, Shungnak, Kobuk, Kiana and Kotzebue. Most residents within and surrounding the Refuge rely on wild-caught foods and materials for a substantial portion of their sustenance and for cultural meaning. The locations in which subsistence hunters search for and harvest animals vary from year to year, depending on a variety of factors such as migratory timing, species abundance, costs of gas and groceries, and ease of access to desired animals. Subsistence activities on Refuge lands and waters take place throughout the year. Subsistence users would be

temporarily displaced from areas where construction, maintenance or decommissioning activities are occurring. During the winter near to the ROW corridor refuge subsistence users are primarily seeking caribou, wolves, furbearers, and ptarmigan. During the summer, fish, waterfowl, and berries are sought in and around the ROW corridor. Improved internet access of rural residents could result in changes to patterns of subsistence use, including potential for less time spent on subsistence activities.

Water quality and quantity

Trenching and changes to vegetation along water bodies would result in sedimentation and contribute to permafrost thaw, which would have minor, localized effects on surface water quality. Accidental discharge of fuels or other hazardous materials could occur and affect water quality. Water quantity is not expected to be impacted.

Wilderness

The proposed ROW would occur in close proximity (as close as 90 feet, and within 600 feet for approximately 1 linear mile) to the Selawik Wilderness Area. Heavy equipment, helicopters, snowmachines, and personnel involved in construction, maintenance, and repairs would be visible and audible from within Selawik Wilderness and could impact wilderness character. Installed cable anchors and splice points could also be visible from Selawik Wilderness. Changes to wildfire behavior in close proximity to Selawik Wilderness could impact wilderness character.

Selawik Wild River

The proposed right-of-way corridor would cross tributaries of the Kugarak River and the main stem of the Kugarak River, which joins the Selawik River at the terminus of the WSRA designated Selawik Wild River. Depending on water levels, water from the Kugarak River may back-flow into the Selawik Wild River. Although impacts to water quality could occur on the Kugarak River and it's tributaries, significant impacts to waters in the WSRA designated portion of the Selawik River are not expected.

Mission of the NWRS

The Refuge is undergoing unprecedented, rapid environmental change. Environmental conditions and challenges for the conservation, management, and restoration of fish wildlife, plants and habitats for over the proposed ROW term (20 years) are not easy to predict. Adaptive management would be required to meet challenges. Allocation of resources for administering uses that are not directly tied to

the mission of the NWRS could result in a decrease in resources available for other activities associated with conservation, management, and restoration of fish, wildlife, and plant resources and their habitats.

Viewshed and soundscape of the refuge would be impacted by the presence of infrastructure, equipment, and aircraft associated with the use. Evidence of human modification and changes to the landscape would be noticed by Refuge users participating in wildlife dependent recreational activities, including hunting, fishing, wildlife observation and photography.

Public Review and Comment

The draft compatibility determination will be available for public review and comment from February 6, 2026 to February 27, 2026. The public will be made aware of this comment opportunity through emails and/or letters to local Tribes, municipal governments, and the State of Alaska; public notices on local radio stations and in local newspapers; and via Selawik Refuge's social media accounts. A hard copy of this document will be posted at the Selawik Refuge Headquarters in Kotzebue and electronically at www.fws.gov/refuge/selawik_nrbn_cd. Concerns expressed during the public comment period will be addressed in the final Compatibility Determination.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

In addition to the requirements, terms, and conditions in the Service's rights-of-way General Regulations at 50 CFR 29, ANILCA TUS Regulations at 43 CFR 36, and plans, minimizations, mitigations, Best Management Practices, and other measures detailed in the EA, the following stipulations may be sufficient to ensure the use meets the minimum threshold for not materially interfering or detracting from the fulfillment of Refuge purposes and the NWRS mission.

1. The permittee shall conduct the use in accordance with the information provided in the permit application and analyzed in NEPA documentation. Any changes to, or deviations from, information provided in the permit application must be reported to, and approved by, the Refuge Manager.
2. The permittee is responsible for keeping the construction area clean. All trash and food waste shall be removed from the Refuge. Burning of trash, solid waste

or any other substances or materials is prohibited. At the completion of construction, a final cleanup shall be conducted by the Permittee and approved by the Refuge Manager.

3. All human waste shall be removed from the Refuge and disposed of at an approved off-Refuge facility.
4. Fuel storage, cleanup, and spill reporting will be conducted in accordance with Service policies. Absorbent material in sufficient quantity to handle spills must be on hand at all times for use in the event of an oil or fuel spill. All hazardous wastes (as defined by the Resource Conservation and Recovery Act of 1976, as amended) will be stored, transported, and disposed in accordance with regulation requirements.
5. Vehicles and equipment used for construction, operation, maintenance, and decommissioning of the project shall remain within the right-of-way corridor at all times, except that snowmachines (snowmobiles) may transit other Refuge lands and waters during periods when there is adequate snow cover to prevent damage to vegetation or soils, and boats may transit Refuge waterways to access the right-of-way.
6. Types of vehicles and equipment used, and the manner in which they are used on Refuge lands and waters, is limited to what is listed in the right-of-way permit application and NEPA documentation. Any deviations must be approved, in writing, by the refuge manager.
7. Vehicles and equipment (excluding snowmachines) may only be used on refuge lands when the minimum average snow depth is greater than 9 inches or there is a minimum of 3 inches of snow water equivalent (SWE).
8. Vehicles and equipment (excluding snowmachines) may only be used on refuge lands when the soil temperature at 12 inches below the tundra surface (measured from the top of the organic layer) is below 23°F (-5°C) to ensure adequate soil freezing.
9. A formal protocol shall be developed by the permittee to ensure consistent and repeatable measurements of snow depth, SWE, and frost depth along the proposed route. The protocol shall be submitted to the Refuge Manager for approval.
10. The Refuge Manager, or designee, upon request, shall be afforded the opportunity and logistical support from the nearest commercial transportation site to accompany the permittee for the purpose of inspection and monitoring permitted activities.
11. During the term of the permit, an Annual Operating Plan (AOP) will be submitted to the Refuge Manager for review and approval. Review may include consultation with Tribes and coordination with other Federal, state, and local agencies. Adjustments to the AOP may be required to minimize impacts to

refuge purposes and the mission of the NWRS. The plan will include:

a. Anticipated schedule, locations, operating procedures, and rationale for accessing refuge lands or waters;

b. Types of equipment, vehicles, and aircraft, to be used;

c. Number of personnel accessing refuge lands and waters;

d. Flight schedules and routes for aircraft operations occurring within the range of the Western Arctic Caribou Herd;

Subsequent plans must be submitted annually for approval at least 30 days prior to any planned activities. Requests for deviations from the Plan of Annual Operations must be submitted in writing to the Refuge Manager for approval.

12. The permittee shall report to the Refuge Manager, as soon as possible, any access to Refuge lands that was not approved through the Annual Operations Plan or a subsequent written request.

13. The Permittee will provide a report to the Refuge Manager that details the previous year's activities and information on the network's functionality. This report will include:

    a. Dates, locations, and descriptions of operations that occurred on refuge lands or waters;

    b. Types of equipment and vehicles used;

    c. Number of personnel accessing refuge lands and waters;

    d. A log of flights, including type of aircraft used, schedule, routes, and landing locations within the range of the Western Arctic Caribou Herd;

    e. Summary of wildlife interactions and observations on refuge lands and waters, including caribou sitings, disturbances to migratory birds, presence of nesting birds, presence of dead or injured wildlife, and presence of other fish and wildlife in and around the ROW;

    f. Summary of interactions with subsistence users on refuge lands and waters;

    g. Documentation of any disturbances to soils, including bank erosion along water bodies, that is observed within the ROW;

    h. Information on timing, cause, and duration of any internet service interruptions that occurred as a result of network failures/outages.

14. The permittee will take no action that interferes with subsistence and recreational activities of rural users or restricts the reasonable access of subsistence users to refuge lands. This may include, but not limited to disturbance of wildlife and their movements near subsistence hunters.

15. The permittee shall avoid concentrated public use areas and time periods and sensitive wildlife areas and time periods (including areas occupied by the Western Arctic Caribou Herd) to be identified by the Refuge Manager in advance of maintenance activities.
16. Any problems with wildlife and/or animals taken in defense of life or property must be reported immediately to the Refuge Manager and the Alaska Department of Fish and Game, and animals taken must be salvaged in accordance with State regulations.
17. The operation of aircraft at altitudes and in-flight paths resulting in the herding, harassment, hazing, or driving of wildlife is prohibited.
18. Best management practices as described in the US Fish and Wildlife Service's Best Management Practices for Broadband Projects (U. S. Fish and Wildlife Service 2024) shall be implemented to reduce impacts to migratory birds, other wildlife, fish, and habitats.
19. The permittee shall develop and implement a vegetation management plan. The protocol shall be submitted to the Refuge Manager for approval.
20. Best management practices, including the use of certified weed free materials and supplies, shall be adhered to, to ensure that no invasive plants, insects, other invertebrates, or animals are introduced to refuge habitats. The permittee shall be responsible at all times during the life of the permit for preventing the introduction of invasive species on the refuge.
21. The permittee shall do everything reasonably within the permittee's power to prevent starting wildfires and to suppress the spread of any fires that are started as a result of activities authorized by this permit.
22. The permittee shall not take actions to prevent or suppress wildfires or prescribed fires on refuge lands that are not a result of activities authorized by this permit, except at the direction of a duly authorized representative of the United States.
23. Access to the Selawik Wilderness Area is prohibited.
24. Access to the Selawik Wild River corridor is prohibited.
25. Noise levels during normal operations for the life of the project may not exceed levels established in the permit application, unless otherwise authorized in writing by the Refuge Manager.
26. All infrastructure on the refuge will be designed to minimize visual impacts to the extent practical.
27. The use of lighting shall not be allowed on infrastructure unless required as a public safety measure by the Federal Aviation Agency (FAA) or approved in writing by the Refuge Manager.

28. The permittee shall reimburse the Service the cost of administering this ROW and monitoring Refuge resources as a result of this ROW as outlined in Table 1 (50 CFR 29.18(b)).
29. The permittee shall provide the Service proof of a performance bond to cover costs of potential damage, restoration, or reclamation of Refuge resources.
30. The permittee shall develop a decommissioning and reclamation plan for approval by the Service at least one year prior to permit expiration.

Justification

The proposed use would not materially interfere with or detract from the Refuge's primary purpose to conserve fish and wildlife populations and habitats in their natural diversity. Although temporary displacement of wildlife would occur, population level effects would not be expected. Some impacts to migratory birds would occur, including displacement of birds during maintenance activities and mortality from striking infrastructure at river crossings, however the above-listed stipulations would minimize impacts. Significant impacts to fish and water quality are not expected. The number of acres within the ROW are small compared to the overall refuge acreage, however the route would extend across over 2/3 of the refuge's width. Significant impacts to habitats would be avoided by following stipulations and best management practices aimed at 1.) preventing damage to vegetation and permafrost; 2.) restoring impacted habitats; and 3.) allowing natural processes to occur, including wildfires, river meanders, and regrowth of native vegetation.

The proposed use would not materially interfere with or detract from Selawik Refuge's purpose to fulfill international treaty obligations of the United States with respect to fish and wildlife and their habitats as there would be minimal loss of migratory bird habitat from the use.

The proposed use would not materially interfere with or detract from the Selawik Refuge's purpose to provide the opportunity for continued subsistence uses by local residents. The presence of the fiber optic cable, anchors, and aerial crossing structures would not reduce availability or accessibility of subsistence resources. Construction, maintenance, and repair activities would temporarily displace wildlife and subsistence users, however stipulations listed above would help ensure that impacts to subsistence activities are minimized.

The proposed use would not materially interfere with or detract from the purposes of Selawik Wilderness. All activities associated with the use would occur outside

designated wilderness. Construction, maintenance, and repair activities could be seen and heard from Selawik Wilderness, but these activities would be temporally limited.

The proposed use would not materially interfere with or detract from the values of the Selawik Wild River. Activities associated with the ROW would not occur within the river corridor or be visible or audible from the river. Impacts to water quality are not expected as the ROW would not cross up-stream tributaries of the Selawik Wild River.

The resources and staff time (capacity) required for administering the proposed use would diminish the capacity for fulfilling the NWRS mission and Refuge purposes. Monitoring initial construction activities, scheduled and unscheduled maintenance, adherence to permit stipulations, impacts to fish, wildlife, habitats, subsistence, and water quality, and Wilderness character would be required. Additionally, communicating with the public, responding to applicant and public concerns, adaptively managing issues that arise during wildfires and repair activities, and oversight of decommissioning would require capacity. Staff time required would be variable within and amongst years through the permit term. A cost recovery agreement could offset some of the need for capacity but would likely be insufficient for acquiring and retaining full-time employees with necessary skills and knowledge to perform duties associated with administration, coordination, and monitoring of the use. The increasing demand for additional uses of the Refuge could interfere with and detract from Refuge purposes and the NWRS mission in the future.

ANILCA recognized the future need for transportation and utility systems in Alaska. Recent legislation and Executive Orders recognize the need for broadband infrastructure service in rural areas. Improved broadband access may help ensure the sustained viability of communities within and adjacent to Selawik Refuge, which include Tribes.

After fully considering the effects of this activity, it is my determination that this use would not immediately and materially interfere with or detract from the purposes of Selawik National Wildlife Refuge or the mission of the National Wildlife Refuge System. These activities will remain compatible with the implementation of the listed stipulations and adequate capacity for monitoring and adaptively managing the use.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

The initial Right-of-Way permit term is expected to be 20 years. Compatibility of the use will be re-evaluated prior to permit renewal. Re-evaluation would also occur if significant changes to the activity are proposed.

Figure 1. Map of proposed ROW route.