

**U.S. Department of the Interior  
Bureau of Land Management**

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**Environmental Assessment  
Amended Doyon Winter Trail**

**PREPARING OFFICE**

U.S. Department of the Interior  
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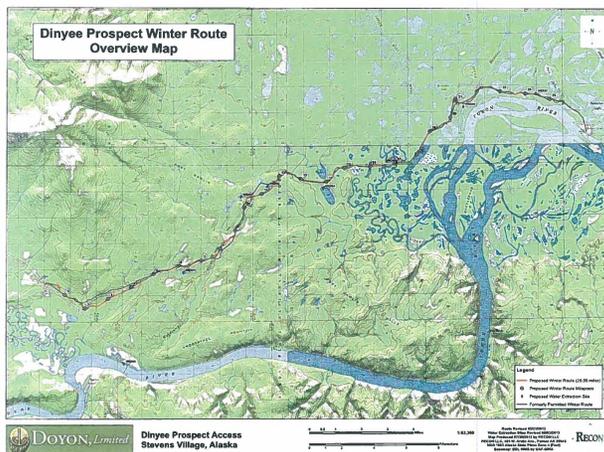




# Environmental Assessment Amended Doyon Winter Trail

Prepared by  
U.S. Department of the Interior  
Bureau of Land Management  
Fairbanks, Alaska

## Doyon Winter Trail Map



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# **Chapter 1. Introduction**

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## **1.1. Identifying Information:**

On April 24, 2006, Doyon Limited received a Patent No. 50–2006–0201 to lands near Stevens Village. They are now proposing to conduct low level oil and gas exploration on a portion of these lands. To support this effort they require access across public lands for an overland move of necessary equipment. On July 19, 2012, Doyon Limited was authorized a right-of-way grant for a staging area and winter access trail from 5 Mile airport off the Dalton Highway to Stevens Village. Subsequent surveying of the route by the applicant, it was discovered that some grades were not conducive to winter trails and work was abandoned.

### **1.1.1. Title, EA number, and type of project:**

Amended Doyon Winter Trail to Stevens Village, DOI-BLM-AK-030–2014–0006–EA

### **1.1.2. Location of Proposed Action:**

The proposed winter trail will begin at the Dalton Highway mile post 57 and traverse east to Stevens Village more particularly described as Secs. 12, 13, 14, 21, 22, 23, 28, 29, 30 and 31, T. 13 N., R. 10 W., and Secs. 26, 35 and 36, T. 13 N., R. 11 W., Fairbanks Meridian, containing approximately 36.36 acres of public lands.

### **1.1.3. Name and Location of Preparing Office:**

Central Yukon Field Office, 1150 University Avenue, Fairbanks, Alaska 99709

### **1.1.4. Identify the subject function code, lease, serial, or case file number:**

Case file number F-95741

### **1.1.5. Applicant Name:**

Doyon, Limited

## **1.2. Purpose and Need for Action:**

Doyon, Limited proposes to amend an existing authorization for a right-of-way for a staging area and winter access trail from the 5 Mile Airport off the Dalton Highway to Stevens Village in support oil and gas exploration on private lands. Additionally, they propose to clear turnouts, temporary pull outs and extract water from approximately six (6) ponds along the route with three (3) of the ponds on public lands.

## **1.3. Scoping, Public Involvement and Issues:**

During the processing of the original authorization scoping letters were mailed on December 23, 2011 to all interested parties near the area of impact. Seven (7) comments were received all of

which were mitigated. Because public notification of this EA was published to the Central Yukon Field Office electronic NEPA register website on December 30, 2013, BLM determined it was not necessary for additional scoping. No comments have been received as of February 12, 2014.

# **Chapter 2. Proposed Action and Alternatives**

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## 2.1. Description of the Proposed Action:

Doyon, Limited proposes to build a winter trail to access their property to conduct oil and gas exploration using a subcontractor (not determined at this time). The amended trail begins at the at 5 Mile Airstrip off the Dalton Highway mile post 57 and traverses public lands easterly for approximately nine (9) miles before continuing on to private lands ending at Stevens Village. The amended route would be more feasible to avoid steep topographic relief, maximize the use of open and marshy areas that freeze solid and do not require any cutting and would minimize stream crossings. In addition, unmanageable cross slopes would be avoided. Mobilization of trailblazing/mulching equipment is planned to begin 2013–2014 as soon as frozen ground conditions can support the weight of equipment. This equipment would be used to clear trees and brush without damaging ground that would result in erosion or long term vegetation loss.

The right-of-way would be cleared up to a maximum of 30 feet wide within in which would be a single lane snow and ice trail approximately 16 feet wide. Because it would only be a single lane trail, turnouts would also be constructed to allow for passing traffic at regular locations. Additionally, small temporary clearings would be developed every mile for temporary equipment parking and laydown during winter road development and maintenance activities. Short spur access trails would be cleared to water extraction sites.

The following equipment would be used in the construction of this trail: D5G mulcher, D6 LGP dozer, tracked excavator, tracked feller/buncher, tracked carrier, Cat 966, crew carrier, fuel sled with tracked carrier with double walled fuel tank, supply connex, trail groomer, snowmachines (4) and 10 persons camp. Personnel will be housed at established facilities at Fairbanks, Fox, Livengood, and Stevens Village.

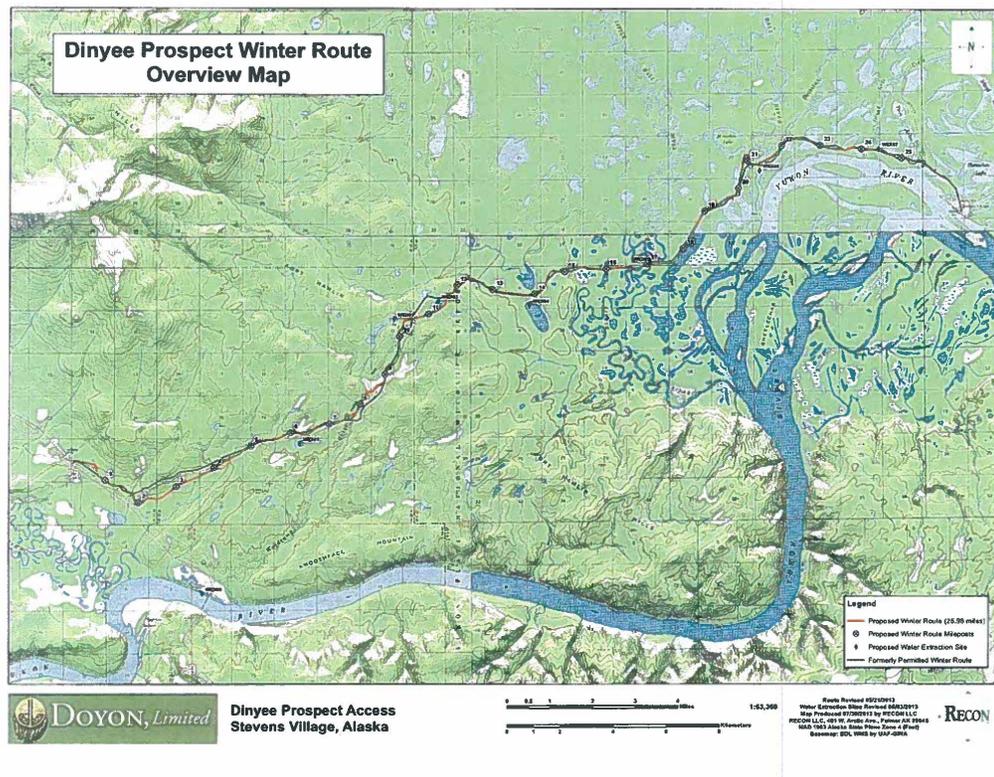
Water will be needed to harden the snow surface for travel within the winter access route. Water will be obtain from the Yukon River and six (6) other ponds designed on a map (3 of which are on public lands). Equipment would cross frozen streams during construction of the trail and transportation of all supplies. Proposed stream crossings are Ray River and tributaries, Woodcamp Creek, Dall River and tributaries and Dakokan Creek.

After the trail is cleared, mobilization of up to 200 pieces of equipment would traverse the trail in support of mineral exploration. Doyon does not propose to restrict trail access to the public but does proposes to minimize the presence of the trail to avoid “general” public use.

Additionally, Doyon proposes to stage heavy equipment at the southern end of the 5 mile airstrip. Doyon has obtained permits from the State of Alaska for extracting water, fish habitat permit, letter of concurrence, scenic by-way design requirements and access agreement from Stevens Village. They propose a five (5) year authorization.

### Agency Decision to be Made

The BLM will decide whether or not to grant the right-of-way, and if so, under what terms



**Figure 2.1. Map of Amended Route**

## 2.2. Description of Alternatives Analyzed in Detail:

No alternatives were analyzed in detail as neither was a feasible route.

### No Action Alternative

No other practicable alternatives were identified that would be less environmentally damaging. Under the no alternative action, Doyon, Limited would not receive an amended right-of-way for a winter access trail to support their oil and gas exploration.

## 2.3. Alternatives Considered but not Analyzed in Detail

1. A nearby RS2477, also known as Wood Chopper Creek Trail was considered as a viable corridor. This trail is already used as a winter trial route by snowmachiners and has been cleared of vegetation for a winter trail. However, the route leaves from the Dalton Highway immediately north of the Yukon River Bridge and crosses under the Trans-Alaska Pipeline System (TAPS). The height and load restrictions to cross under TAPS would severely restrict the allowable vehicles and would not meet the overall purpose and need for this project.

2. During the winter, the Yukon River is frozen and is used frequently as a transportation corridor to Stevens Village. There is a boat ramp on the west side of the Dalton Highway that allows access to the river, which can be followed the entire route to Stevens Village. Water beneath the

frozen river is flowing all winter creating thin ice in some areas and buckling or “over flow” in others. Use of this route is highly dependent on local winter weather conditions and is only rarely capable of supporting equipment of the size and weight expected to be used on this project.

## **2.4. Conformance**

The EA is in conformance with the Utility Corridor Resource Management Plan and Final Environmental Impact Statement approved January 11, 1991. The proposed action is in conformance with plan because it is specifically provided for in the following planning decision (objectives, terms, and conditions):

Appendix N Lands Program Objectives (page N 7- 9)

Process applications for land use authorizations from the general public, federal and state agencies, and research organizations on a case by case basis.

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## **Chapter 3. Affected Environment:**

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BLM guidelines include a list of issues that are addressed, where applicable, in NEPA assessments. Some elements are not present in the project area and are, therefore, not discussed further. A summary listing of related issues are considered by the Central Yukon Field Office staff is provided in Table 3.1.

Table 3.1

Critical Elements and Other Elements to be Considered					
Critical Elements	Affected		Critical Elements	Affected	
	Yes	No		Yes	No
Air Quality		X	Native American Religious Concerns		X
Areas of Critical Environmental Concern		X	Threatened or Endangered Species		X
Cultural Resources		X	Hazardous and Solid Wastes		X
Environmental Justice		X	Water Quality- Surface and Ground		X
Essential Fish Habitat	X		Wetlands/Riparian Zones	X	
Prime and Unique Farm Lands		X	Wild and Scenic Rivers		X
Floodplains		X	Wilderness	X	
Invasive, Non-native Species	X				
Other Elements	Affected		Other Elements	Affected	
	Yes	No		Yes	No
Access	X		Visual Resources		X
Fire Management		X	Wildlife/Aquatic		X
Mineral Resources		X	Wildlife/Terrestrial	X	
Soils		X			
Subsistence	X				
Vegetative Resources	X				

#### Invasive, non-native plants:

A vegetation survey was conducted in 2004 within the Dalton Management Area from the Yukon River Bridge to Galbraith Lake. The primary focus was to inventory for non-native invasive plant (NIP) species along the highway, trails and adjacent disturbed sites. Burn areas north of the Yukon River Bridge and south of Coldfoot were visited in 2005 through 2007 to determine impacts of fire on the introduction and spread of NIP. Inventory and monitoring surveys have been conducted from 2008 to present. Twenty-eight non-native plant species were found during these years, three of which, *Vicia cracca* (bird vetch), *Sonchus arvensis* (perennial sowthistle), and *Linaria vulgaris* (yellow toadflax), are considered as noxious weeds by the State of Alaska. Species of greatest concern have been identified by the interagency Alaska Committee for Noxious and Invasive Plants Management (AKEPIC 2005). The following species of greatest concern occur in the Dalton Management Area: *Leucanthemum vulgare* (oxeye daisy), *Tanacetum vulgare* (common tansy), *Melilotus alba* (white sweetclover), *Melilotus officinalis* (yellow sweetclover), *S. arvensis*, *V. cracca*, and *L. vulgaris*. Several of these occur at the staging area, including *M. alba* and *V. cracca*, or within 5 miles of the area, such as *S. arvensis*. *M. alba* occurs at a very high and aggressive rate. No surveys have been conducted at the site of the proposed action but plots at MP 59 and 64.

No surveys for non-native invasive species other than plants have been conducted at the site of the proposed action.

#### Riparian/Wetlands

Riparian canopy vegetation observed along these streams includes a mix of *Salix spp.* (willow) and *Alnus spp.* (alder). Aspen (*Populus*) and spruce (*Picea*) grow along the banks. Some of the more common shrub and herbaceous species of vegetation growing in the riparian-wetland community include: *Vaccinium uliginosum* (Bog blueberry), *Rosa acicularis* (prickly wild rose), and grass species (Rockwell 1978).

Subsistence: The proposed action is within an area identified by Stevens Village as the traditional land use and occupancy area (Sumida 1988). The area has been identified by Alyeska Pipeline Service Co (2002) as a subsistence use area for residents of Stevens Village. Moose (*Alces alces*), caribou (*Rangifer tarandus*), wolves (*Canis lupus*), black and brown bears (*Ursus americanus* and *U. arctos*, respectively), furbearers and small game all occur in the general area. While caribou sometimes occur in the area in the winter, moose, wolves, bears, furbearers such as marten (*Martes americana*) and lynx (*Lynx canadensis*) and small game such as snowshoe hare (*Lepus americanus*) and ptarmigan (*Lagopus sp.*) are the most likely subsistence species to occur along the winter trail.

Moose and brown bears are both thought to occur at low population densities (< 1.0 moose/mi<sup>2</sup> and .033/mi<sup>2</sup>, respectively) in the general area (Central Yukon Field Office Field files, Alaska Department of Fish and Game 2008). No estimates of black bear, wolf or furbearer numbers are available.

#### Threatened and Endangered Species:

There are no known threatened or endangered species (TES) present in the area of proposed action or adjacent to the area. No appropriate habitat for TES occurs at the site or in the vicinity. This element will not be analyzed further in this assessment.

Vegetation: Vegetation at the project site is predominated by open needleleaf and woodland needleleaf communities (USDI/BLM et al. 2003) and is characterized by scattered, small, white spruce trees (*Picea glauca*). The area of the proposed action is within the burn perimeter of the 2004 Ft. Hamlin Hills fire and burned inclusions are adjacent to the staging areas. Some of the areas burned through the vegetation mat.

Wildlife/BLM AK Sensitive Species: A variety of mammals and migratory birds occupy habitat at the project site. Some of the migratory birds may nest at the site of the proposed actions between April 15 and August 15.

BLM/AK SENSITIVE SPECIES: The published ranges of several wildlife species that appear on the BLM AK Sensitive Species List overlap the project area. These include: the Golden eagle (*Aquila chrysaetos*), Blackpoll warbler (*Dendroica striata*), Olive-sided flycatcher (*Contopus borealis*), and Rusty blackbird (*Euphagus carolinus*). Watch list species Townsend's warbler (*Dendroica townsendi*) and Gray-cheeked thrush (*Catharus minimus*) may also occur in the area. No comprehensive inventories for Sensitive Species have been conducted in the area of the proposed action. Surveys for cliff nesting raptors conducted prior to 1990 and in 2010 in the Utility Corridor resource management planning area have included the BLM AK Sensitive Species, the Golden eagle. No historic or active Golden eagle nesting territories were found in the area of proposed action.

Based on habitat preference and breeding bird survey data from the nearby Dalton Highway, Blackpoll warbler and Rusty blackbird are the other Sensitive Species most likely to inhabit the project area. This element will not be analyzed further in this assessment.

# **Chapter 4. Environmental Effects:**

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## Impacts of the Proposed Action

Invasive, non-native plants: *Direct effects:* The staging area is known to be infested with many non-native invasive plant (NIP) species, such as *Melilotus alba*, *Crepis tectorum* and *Vicia cracca*. If vehicles and equipment are parked in the staging area before snow is deep enough to cover all vegetation, especially seed heads and pods, some seed will be moved by vehicles from this area along the winter trail. If it is necessary to park vehicles and equipment at the staging area prior to adequate snow cover the area will need to be treated to remove all NIP prior to staging.

Non-native invasive plants, such as white sweetclover, can retain viable seed above snow pack. Seefeldt and Craig (2011 pers comm.) demonstrated that seeds retained by this plant above snow pack can collect in snow and ice on equipment as it moves through an infestation that is not fully covered by snow. Further, they demonstrated that 3% of seed recovered from the equipment germinated in laboratory tests, suggesting that seed picked up at staging areas or along the winter overland route would move with equipment and thereby be introduced to new locations. Viable seed would germinate during the growing season. As long as permit stipulations require adequate snow to cover herbaceous vegetation, any NIP along the route will not be spread by the winter moves.

Non-native invasive plant seeds embedded in mud and other debris on heavy equipment brought from other locations could introduce new NIP to the staging area and along the winter trail. Seeds can dislodge along the way during winter moves and germinate in disturbed areas during the growing season. NIP are pioneer species adapted to poor conditions. With no natural plant pests to keep NIP in control, they can spread rapidly if conditions are suitable. All equipment, including vehicles and personal gear, should be cleaned at the point of origin to remove all plant material, mud and debris that may harbor seeds. Equipment being moved over the snowpack in the winter should be thoroughly cleaned before freezing temperatures make it difficult to remove mud and debris that may harbor NIP seed. Heavy equipment being transported from Fairbanks, Anchorage, or other road based areas are most likely to carry NIP seeds. Pressure wash and a collection system work best for cleaning heavy equipment and vehicles, such as a commercial vehicle wash a facility that accommodates large equipment. Portable wash stations with collection systems are a viable option. Stiff brushes and/or scraping tools may remove mud from tracks and treads in lieu of a portable wash system; however the undercarriage also harbors mud and debris and would most likely be missed without high pressure water.

Other non-native invasive species, such as insects, can be harbored as egg masses or cocoons on any equipment. Few non-native and invasive insect and plant pathogen pests are known to occur in interior Alaska currently. Equipment used only in Alaska is less likely to harbor these kinds of pests. Thorough cleaning of equipment and personal gear as described for NIP will also remove egg masses and cocoons and is recommended for equipment and vehicles that are from outside the State.

*Indirect effects:* If non-native invasive species become established from this action, they are likely to spread along rivers and other natural disturbances and could result in environmental and economic costs, such as control costs or loss of wildlife habitat, depending on the invading species. Spellman (2008) studied impacts of the invasive plant *Melilotus alba* (sweetclover) in early-succession floodplain habitats, including competitive displacement of willow on gravel bars. Since willow is a favored winter browse of moose, implications of some infestations to the subsistence and recreation economy of Alaska could be significant.

*Cumulative effects:* Past, current and reasonably foreseeable actions in the area are not expected to result in cumulative impacts in combination with the proposed action. If exploration for oil and gas results in future development, cumulative effects may result. The impacts would be mitigated through stipulations to prevent the introduction and spread of NIP from this and future actions.

Riparian/Wetlands: Some of the riparian and wetland vegetation growing along the trail will be crushed or cut. Recovery time is uncertain though with a root system intact regrowth is likely. Depending on snow cover and ground freezing depths, additional effects from trail use may include settling, soil compaction, and surface moisture changes all of which could impact vegetation growth and diversity. Mitigation that ensures adequate snow cover and soil freezing depths prior to travel will increase the chances of maintaining natural conditions and allow wetland/riparian areas to recover to a fully functional condition. Annual trail monitoring should be undertaken to evaluate and confirm that riparian and wetland vegetation is healthy.

#### Cumulative Effects:

In addition to the proposed action, there are active gravel quarrying sites, an airstrip, the Trans-Alaska Pipeline, the Dalton Highway, private inholdings, and a State of Alaska DOT highway maintenance facility near the proposed trail, all of which have altered habitat and condition. The additional disturbance from this permitted activity is anticipated to be minor and will not change the current functionality of wetlands and riparian vegetation on a landscape scale since most of the surrounding watershed remains in a natural condition.

Wildlife: Although the proposed route will not be legally open to public use and signs forbidding road use off the Dalton Highway will be present, actual physical restrictions (e.g. a gate restricting road entry) to public access will not be present. Therefore this new overland route will physically open access to illegal hunting activity in the area if the closure of the route to public use is not enforced. Furthermore it is reasonably foreseeable that in the future, legal restrictions to public use of this route, and subsequently ADFG DHCMA restrictions to non-subsistence hunter access, could be lifted. If this future scenario occurs, then taking of wildlife (including, but not limited to, caribou and moose), in the area would likely increase.

Subsistence: *Direct, indirect and cumulative effects:* The Stevens Village Council (Council) was contacted by Doyon for concurrence with this action. The Council, through a resolution, supports issuance of the winter access trail to Doyon by BLM. Support from the Council in combination with the overland move being conducted with a requirement for snow cover of 12” and ground freeze depth of 6”, result in no impacts to harvestable resources or subsistence uses. A letter and resolution from the Council are in the file. As noted in the environmental effects wildlife section above, trespass along the proposed route and/or future lifting of restrictions to road use and non-subsistence hunter access, could result in increased taking of subsistence species by non-subsistence hunters.

Vegetation: *Direct effects:* Some above snow level vegetation will be lost from trailblazing/mulching and from compaction of equipment traffic over the route. If snow cover and ground frost is adequate, little or no permanent damage from the overland move should be evident.

*Indirect and cumulative effects:* If adequate snow cover and ground freezing depth has not been achieved before use of the winter trail, subsidence and changes in ground cover and moisture may result in changes to vegetation community structure and diversity. Past, current and reasonably foreseeable actions in the area are not expected to result in cumulative impacts in combination with the proposed action. If exploration for oil and gas results in future development, cumulative

effects may result. The impacts would be mitigated through stipulations developed for future actions.

### Impacts of Alternatives

#### No Action Alternative

There would be no effect on non-native invasive plants, wildlife, or vegetation from the No Action Alternative.

#### Mitigation Measures

The applicant would assure that non-native invasive species are not introduced or spread due to staging or winter overland exploration. The applicant would be required to clean all equipment at site of origin before moving to staging areas. If staging must occur in areas with infestations of NIP, BLM personnel will mow at appropriate times to prevent spread of seeds as determined by the invasives specialist.

For winter overland moves, snow depth would be 12 inches and ground will be frozen to 6 inches.

The BLM would mow the non-native invasive species up to three (3) times prior to staging equipment in the staging area and proposed route down the runway.

#### Riparian/Wetlands Mitigation

Winter cross country travel will begin and end when 12" snow cover and 6" frost depth conditions exist for the activities.

Annual trail monitoring will be undertaken by the grantee to evaluate and confirm if healthy. If monitoring determines that the vegetative mat is disturbed to a point that vegetation is no longer living or the trail is subsiding or eroding, such areas will be remediated to the satisfaction of BLM.

### Residual Impacts

Invasive, non-native plants: NIP species that may be introduced by the proposed action may persist and spread along natural and other disturbances in the area, such as scoured sandbars and areas of high intensity burns. The treatment of such infestations requires repeated effort and often involves herbicides.

#### Subsistence Mitigation

Communication with the village representatives will occur before each seasonal operation to coordinate activities to minimize the impact to subsistence activities and to ensure subsistence users are not conflicted by onsite operations.

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## **Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:**

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**Table 5.1. List of Persons, Agencies and Organizations Consulted**

<b>Name</b>	<b>Purpose &amp; Authorities for Consultation or Coordination</b>	<b>Findings &amp; Conclusions</b>
Glenn Ruckhaus, Owl Ridge Natural Resource Consultants	Agent	
Stevens Village IRA Council	Village impacted by trail	Resolution signed
Dinyee Corporation	Village corporation impacted	Resolution signed
State of Alaska	Water permits	Permitted
State of Alaska, ADF&G	Permit for ponds	Permitted
State of Alaska, DOT	Interested Party	None
State of Alaska, SHPO	Cultural	None
Western Interior RAC	Caribou	None
Residents of Wiseman	Town impacted by action	None
Hot Spot Cafe	Interested Party	None
Alyeska Pipeline Service Co.	Interested Party	None
Reanier & Associates, Inc.	Interested Party	None

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## **Chapter 6. List of Preparers**

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**Table 6.1. List of Preparers**

<b>Name</b>	<b>Title</b>	<b>Responsible for the Following Section(s) of this Document</b>
Robin Walthour	Realty Specialist	All
Robert Karlen	Fisheries Biologist	Water, Fish
William Hedman	Archeologist	Cultural
Darrel VandeWeg	Geologist	Minerals
Lisa Shon Jodwalis	Interpretive Park Ranger	Lands with Wilderness Characteristics
Michael Schoder	DSD for Cadastral Survey	Boundary Risk Assessment
Michael Stephan	Surveyor	Boundary Risk Assessment
Gary Foreman	Associate Field Manager	Review
Shelly Jacobson	Field Manager	Review
Cal Westcott	Outdoor Rec Planner	VRM
Kelly Egger	Outdoor Rec Planner	Wild & Scenic Rivers
Erin Julianus	Wildlife Biologist	Subsistence, Wildlife
Jennifer McMillan	Ecologist	Invasives, Wildlife
Rebecca Hile	Hazmat Specialist	Fuels, Hazmat