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ON THE COVER

A winter view of the Nenana River facing approximately northeast across park land to mountains in alpenglow. NPS photo

Winter and Shoulder Season Plan

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Chapter 1. Introduction

This *Winter and Shoulder Season Plan* addresses the visitor experience and management of the winter and shoulder seasons in Denali National Park and Preserve (Denali). These seasons encompass more than seven months, approximately mid-September through mid-May, a portion of the year that has experienced marked changes in visitation since 2012. The intent of this plan is to address the management of the winter and shoulder seasons in Denali, outline the role that Denali may play in regional tourism and outdoor recreation in these seasons, and increase the quality of the winter and shoulder season visitor experience while protecting park resources and values.

Issues addressed in the *Winter and Shoulder Season Plan* include access to the park via the Park Road and other means, trail establishment and maintenance, commercial services, visitor facilities, seasonally relevant desired conditions, resource monitoring and adaptive management, and the role that Denali could play in the evolving landscape of winter and shoulder season tourism in Alaska. Options for addressing these issues are constrained by factors beyond park control, including climate and weather conditions, the length of daylight during these seasons, wildlife activity during these seasons, and federal hiring and funding regulations.

It is the intent of park managers that Denali continues to provide outstanding opportunities for non-motorized and wilderness recreation, a connection to history, and an unparalleled wilderness that is reasonably accessible to many people. Visitor opportunities explored in this plan are intended to be consistent with these aims and with park values and resource protection goals.

Access to the park could be facilitated by winter plowing of the Park Road west of Headquarters as early as mid-February and as far as the Mountain Vista rest area, approximately mile 13 of the Denali Park Road. When unplowed during periods of snow cover, the Park Road could continue to be informally groomed by aufeis monitoring efforts to provide a non-motorized recreation opportunity. Access to the Park Road in the fall and spring could be shared in a variety of ways by private vehicles, large bus tours, and smaller tour operators. Access for mushers could be maintained with realignment and maintenance of the Spring Trail access route.

Trails proposed in the Nenana River area by separate planning efforts (NPS, 1997) could be constructed to provide additional winter recreation opportunities, including groomed trails. The National Park Service (NPS) could continue grooming existing trails in the entrance area of the park. Existing winter routes at the Mountain Vista rest area could continue to be marked with wands to guide visitors and safely separate user groups. A musher's access route in the Mountain Vista area could also be established.

Commercial services could include guided skiing, snowshoeing, mushing, and gear rentals in some areas of the park. Food service could be provided by a commercial operator in the entrance area of the park.

Potential changes to visitor facilities could include an improved winter visitor center, shoulder season access to several campgrounds, and a trial period to explore the possibility of winter-accessible public use shelters.

Resource protection issues include impacts to soundscape and wilderness character, the preservation of dark night skies, and human-wildlife interactions as well as other impacts to wildlife.

The actions, developments, and management strategies discussed in this plan are intended to sustainably increase the quality of the winter and shoulder season visitor experience, continue Denali's resource stewardship legacy, and prepare the park for an uncertain future during the winter and shoulder seasons.

Purpose and Need

The purpose of the *Winter and Shoulder Season Plan* is to describe a vision of park management during these seasons and the role that Denali could play in regional tourism and resource management. The need to articulate a vision for the winter and shoulder seasons in Denali originates primarily with changes to park visitation during these seasons. From fall 2012 to spring 2019, visitation between October and April grew by approximately 400%, from 3,468 to 14,056¹. Although these numbers are small relative to Denali's total annual visitation (approximately 2% of the 594,660 total visitors in 2018), this rapid rate of increase during the non-summer months represents a substantial change in visitation patterns and is reflective of increasing winter and shoulder season visitation across Alaska (Alaska Department of Commerce, 2018; NPS, 2019c).

Winter and shoulder season visitation in Denali has also diversified since 2012. In the recent past there has been an increase in tour groups and international visitors to Denali during this time of year. Existing park management documents address management of the winter and shoulder seasons, but their focus is largely on the summer season and they do not anticipate the recently observed changes to visitation in the non-summer months. An increasing and diversifying visitor population necessitates a reexamination of the visitor experience offered by Denali during the winter and shoulder seasons, as well as the potential resource impacts from possible changes to visitor services and facilities.

In addition to marked changes in winter and shoulder season visitation, the 2018 expiration of the winter road plowing trial period authorized by the 2013 Winter Road Plowing FONSI (Finding of No Significant Impact) requires the establishment of a more permanent direction for winter management of the Denali Park Road. The trial period was extended via a categorical exclusion (CE) in 2018 to last until a planning effort establishes a long term strategy for use of the Park Road during winter months. The *Winter and Shoulder Season Plan* considers winter plowing of the Park Road in the broader context of visitor opportunities and resource impacts during this time of year.

¹ Visitor numbers are collected by hand at the Murie Science and Learning Center, which has served as Denali's winter visitor center since 2005. Visitor center staff attempt to count individual visitors when each visitor enters the visitor center. Because some visitors may not ever enter the visitor center this method does not provide a census of winter and shoulder season visitation but does allow for year-to-year comparisons of visitor numbers.

Analysis Area

Temporal Scope - The Winter and Shoulder Seasons

This plan concerns the winter and shoulder seasons in Denali, typically mid to late September through mid to late May.

Since the 1990s, the winter and shoulder seasons, or “off season,” in Denali has generally been recognized to begin in September at the conclusion of the four or five days of Road Lottery, which starts the second Friday after Labor Day.

The spring transition from the “off season” and into summer has fluctuated in the past, but has generally occurred around May 15-20 and is characterized by the full complement of summer services and facilities opening to the public. This has included tour and transit bus service west of Teklanika, restriction of private vehicles on the Park Road west of the Savage River, operation of all entrance area facilities including the Denali Visitor Center and Denali Bus Depot, and the operation of all roadside campgrounds except Wonder Lake. This plan includes a variety of ideas that could have different implications for when the spring shoulder season transitions into the summer season.

Geographic Scope – Park Areas Considered

The *Winter and Shoulder Season Plan* includes the entire park area with the exception of a portion of the southern 1980 park additions (Figure 1). The area not included in the plan consists of the southern park additions northwest of the Parks Highway and extending to the western edge of the Kahiltna Glacier. Although this area has received significant winter visitation in the past, use patterns here have typically been very different from other areas of the park (NPS, 2000). This area might, therefore, have different resource protection and visitor experience needs from the other areas of the park that the plan considers. Incorporating these southern park additions in the plan could increase the complexity of the plan and compromise its ability to address emerging issues in other park regions.

Additionally, although use patterns in these southern additions are known to have been different from the rest of the park in the past, there is no detailed information regarding current visitor use in this area. It is unknown whether changes to visitation that have occurred in other areas of the park or further shifts in visitation have also taken place in the southern additions. The park intends to study this area in greater detail after this initial *Winter and Shoulder Season Plan* to determine if a separate planning effort is needed to address the southern park additions.

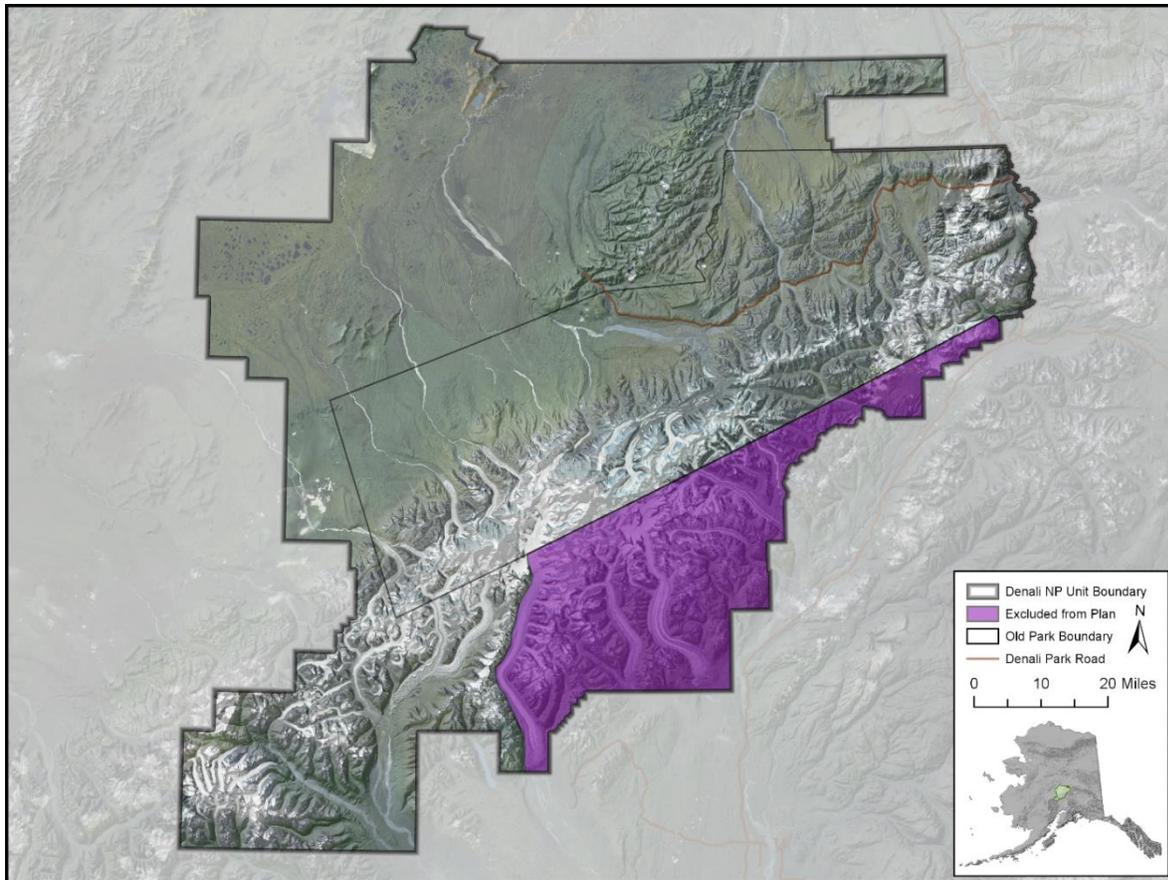


Figure 1. Areas not included in the Winter and Shoulder Season Plan

Plan Guidance

The following policies and planning documents are relevant to the *Winter and Shoulder Season Plan* and informed the creation of the plan. Some proposals discussed in the plan build upon ideas in these existing documents, and some proposals would require revision of existing planning documents.

NPS Management Policies

The NPS is required to follow policies set forth in the *2006 NPS Management Policies*. Policies with relevance to the *Winter and Shoulder Season Plan* include:

- | | |
|---|---|
| 1.4.3 The NPS Obligation to Conserve and Provide for Enjoyment of Park Resources and Values | 6.4 Wilderness Use Management |
| 1.5 Appropriate Use of the Parks | 8.2 Visitor Use |
| 4.9 Soundscape Management | 8.2.2.1 Management of Recreational Use |
| 4.10 Lightscape Management | 8.2.2.4 Backcountry Use |
| 6.3 Wilderness Resource Management | 8.2.7 Tourism |
| 6.3.10.2 Trails in Wilderness | 9.3.1.3 Visitor Centers |
| 6.3.10.3 Shelters and Campsites | 10.2.2 Commercial Visitor Services Planning |
| | 10.3 Commercial Use Authorizations |

Planning Documents

1997 Entrance Area and Road Corridor Development Concept Plan

This document proposed actions related to visitor use, resource protection, and facility development in the frontcountry of Denali National Park. The frontcountry was defined to include nonwilderness areas along the George Parks Highway, the entrance and Headquarters areas, and the Park Road corridor. The Development Concept Plan also established management zones within the frontcountry. As of 2019, most of the frontcountry development proposed in the 1997 Development Concept Plan has been completed.

2000 Environmental Assessment for Permanent Closure of the Former Mount McKinley National Park to Snowmachine Use and Finding of No Significant Impact

Under the Alaska National Interest Lands Conservation Act (ANILCA) section 1110(a) snowmachines (i.e., snowmobiles) are allowed for traditional activities in conservation system units, including Denali National Park. The 2000 snowmachine closure environmental assessment (EA) found that there were no traditional activities for which snowmachines were used in the former Mount McKinley National Park, and therefore recommended closure of this area of Denali National Park to snowmachine use. The closure was implemented by federal regulation published in the Federal Register on June 19, 2000. The regulation also states that snowmachine use in the former Mount McKinley National Park would be detrimental to the resource values of the area.

A similar determination for other areas of Denali National Park considering traditional activities for snowmachine/snowmobile use has not been conducted and is beyond the scope of this *Winter and Shoulder Season Plan*.

Snowmachine use is allowed in the former Mount McKinley National Park for administrative purposes. Since 2017 the NPS has used a snowmachine to groom several miles of trails in the entrance area of the park under a memo to file authorizing this administrative use.

2002 Environmental Assessment for Construction of a Springtime Dogsled and Skiing Trail from Headquarters to Mile 7 of the Park Road and 2003 Finding of No Significant Impact

The NPS authorized construction of approximately 4.25 miles of trail roughly paralleling the Park Road from Headquarters to mile 7.63. This trail was to provide a recreational opportunity as well as access for the NPS kennels operation beginning in March after spring road opening removes snow from the surface of the Park Road. Construction was to be accomplished primarily with brushing and tussock removal, minimizing problems with aufeis and providing enough trail width for recreationists to pass each other. Summer use of the trail was not intended.

2006 Backcountry Management Plan (BCMP) Environmental Impact Statement and Record of Decision

The BCMP guides management of all areas of the park except the road corridor, adjacent development zones, and backcountry day use zones which are addressed by the *1997 Entrance Area and Road*

Corridor Development Concept Plans. The BCMP establishes management areas in the park's backcountry with associated indicators, standards, and thresholds. These management areas and associated metrics apply year-round unless stated otherwise. Other guidance from the BCMP with direct relation to the *Winter and Shoulder Season Plan* includes:

- The unplowed portion of the Park Road is a backcountry hiker management area, and recreation there is treated as though it takes place in adjacent backcountry units
- Authorized commercial opportunities include guided ski and snowshoe trips in the park additions and preserve, and guided dog mushing as well as dogsled freight hauling in all areas of the park
- The establishment of additional formal winter trails beyond those described in the *1997 Entrance Area and Road Corridor Development Concept Plan* is not authorized
- Allows for creation of a warming hut at Headquarters to support winter use, but no other new facilities to support winter and shoulder season recreation

[2012 Vehicle Management Plan and Environmental Impact Statement and Record of Decision](#)

The Vehicle Management Plan (VMP) outlines how vehicle use of the Park Road will be managed and establishes indicators and thresholds to monitor desired conditions for resources and the visitor experience along the Park road. Limits on vehicle traffic established in the VMP (160 vehicles per day west of the Savage River) and in the Code of Federal Regulations (CFR, 10,512 vehicles west of the Savage River per year) apply only during the "allocation season," approximately Memorial Day weekend through mid-September. NPS has not systematically monitored or enforced desired conditions, standards, or thresholds described in the VMP outside of the allocation season.

[2013 Winter Road Plowing Environmental Assessment and Finding of No Significant Impact](#)

The NPS authorized a five year trial period of plowing the Park Road to the Mountain Vista rest area beginning in mid-February each year. The first year of the trial period was 2014, and the trial expired after 2018. A 2018 categorical exclusion extended the trial period for up to two additional seasons (February 2019 and 2020) during the development of the *Winter and Shoulder Season Plan*. The 2013 Winter Road Plowing EA authorized commercial use of the plowed portion of the Park Road. It also stipulated that the road west of Headquarters would be plowed at a priority level three (i.e., the road west of Headquarters would be plowed only after the Park Road from the park entrance to Headquarters and administrative areas such as the visitor center and housing areas are plowed).

[2017 Denali National Park and Preserve Commercial Services Strategy](#)

This strategy document seeks to provide clarity and consistency for park management when making decisions regarding commercial services in Denali. It summarizes the criteria for authorizing commercial use in the park, as well as recent trends in park visitation and national outdoor recreation. A section devoted to winter and shoulder season recreation addresses factors drawing visitors to Alaska during these seasons, as well as constraints that the NPS faces providing for winter and shoulder season visitors to Denali.

Other Planning Guidance

Superintendent's Compendium

The Superintendent's Compendium provides greater detail and park-specific variations on National Park Service regulations contained in the Code of Federal Regulations (CFR). Items in the Superintendent's Compendium with direct relation to the *Winter and Shoulder Season Plan* include:

- 2.15(a)(1) Areas Designated as Closed to Pets – pets are allowed in most areas of the park from October 1 – April 14
- 13.904 Backcountry Camping – Between October 1 and April 14 the closed portion of the Denali Park Road is considered backcountry. Backcountry camping is prohibited within one half-mile of and within sight of the open portions of the Park Road
- 13.974 Frontcountry Developed Area (FDA): Camping In the FDA from October 1 Through April 14 – Camping is allowed in the FDA west of where the Park Road is closed to motor vehicle use in winter

Chapter 2. The Plan

Management Under the Plan

This section describes the broad direction that the *Winter and Shoulder Season Plan* outlines for management of these seasons in Denali, including the role NPS intends the park to play in regional tourism and desired resource and visitor experience conditions for various areas of the park.

Overall Plan Vision

The fall, winter, and spring in Denali National Park are special times of year that provide a contrast to the heightened activity, constant daylight, and crowds of summer. Visitors during the winter and shoulder seasons have valued these distinctions and the opportunity to experience Denali at a different pace, when the quiet, solitude, and freedom offered by the park can seem more apparent (NPS, 2019a). The *Winter and Shoulder Season Plan* aims to preserve this special character of these seasons in Denali, and the contrast that they provide to the summer.

The goal of the *Winter and Shoulder Season Plan* is to equip the NPS to anticipate and manage growth and diversification of off-season visitation. However, given the uncertainty of future visitation, the park must remain flexible and not commit itself to providing for visitor numbers or needs that may never materialize. Conditions beyond the control of the NPS, such as winter temperatures, the length of daylight, and the seasonal habits of wildlife also impact what the park can provide for visitors. The *Winter and Shoulder Season Plan*, therefore, emphasizes visitor opportunities and facilities that will help the park provide for increased visitor numbers that the park can sustain, regardless of changes to visitation and factors beyond the control of the NPS.

A second goal is to outline the park's vision for the role that it will play in winter and shoulder season visitor services across Alaska. Doing so will aid the NPS in avoiding duplication of efforts elsewhere as well as indicate which tourism opportunities might be pursued in Denali and which might be better suited to areas outside of the park.

Denali's winter tourism role is characterized by non-motorized wilderness recreation. Relatively easy access to an area without motorized winter recreational use is rare in Alaska and is part of what makes Denali unique during these seasons. Affordable and straightforward access to wilderness and associated self-reliant recreation opportunities defines Denali's role in visitor services during the winter and shoulder seasons.

In addition to providing access to wilderness recreation, any visitor services or opportunities offered in Denali should be consistent with other park values and principles. These principles include an emphasis on education, history, the NPS tradition, and direct experiences of the natural world. Resource protection is a primary park value, and visitor use during the winter and shoulder seasons will be managed to preserve the vitality and integrity of the biotic, abiotic, cultural, wilderness, and other resources of the park. Visitor uses that are incompatible with these values and resource protection goals or that have only an indirect connection to them would more appropriately be experienced outside of Denali.

Objectives

The NPS can prepare Denali for increased visitation, remain flexible in the face of an uncertain future, and fulfill its role in visitor services by accomplishing the following objectives.

Provide adequate and appropriate access to the park

In order to experience Denali for their benefit and enjoyment, visitors must have access to the park. This need for access must be considered with the need for protection of park resources, and access should not come at the expense of resource protection. Access is appropriate when it does not have substantial impacts to park resources, and access will be managed to minimize resource impacts.

Although access to the park via non-motorized recreation is a focus of this plan, road access for vehicles is also a component of providing adequate access to Denali. Given the special non-motorized character of portions of Denali during winter months, vehicle access to the Park Road during the winter should be provided to the minimum extent necessary to ensure adequate access to the park.

Provide for diverse visitor skill levels, interests, and populations

Denali should be a welcoming place for all visitors. Visitor services and opportunities in the park will be consistent with park values and might not meet every visitor desire, but will provide an engaging and inspiring national park experience for a wide range of visitor skill levels and interests. This could be accomplished by providing a spectrum of trail experiences (e.g., formally groomed, user-maintained, off-trail), access to a variety of terrain, and the availability of quality indoor visitor center experiences as well as outdoor recreation opportunities.

Different visitor populations potentially have different needs and expectations of the park, and to the extent that these needs are compatible with park values, the NPS should try to provide for the diverse visitor populations of the winter and shoulder seasons in Denali. International visitors, Alaskans, package tour groups, and independent travelers are some of the visitor groups currently coming to Denali during the winter and shoulder seasons. If the needs of these groups conflict, the park should seek to minimize the impact of one group on another.

Concentrate development and services near the entrance area

Previous park management documents have emphasized that the visitor experience transitions from urban to rustic to primitive environments as one travels west along the Park Road corridor (NPS, 1997; NPS, 2007; NPS, 2012). This concept is retained in the *Winter and Shoulder Season Plan*. In this plan, development and visitor services are concentrated at the main park entrance area and the level of administrative presence, visitor facilities, and other services generally decreases to the west along the road corridor. This has an impact on the types of commercial services and visitor opportunities that may be appropriate and feasible in different areas of the park. For example, groomed ski trails are more fitting in the entrance area of the park than at the Teklanika rest area (approximately mile 33 of the Park Road). Similarly, visitor opportunities that are appropriate along the road corridor might not be appropriate away from the road or other frontcountry areas.

Foster safety in both the work environment and visitor experience

A visit to Denali presents hazards at any time of year, but perhaps especially during the winter and shoulder seasons when park staffing is typically much lower than during the summer and environmental conditions can be extremely harsh. One way that the park can mitigate these hazards is by adequately communicating with potential visitors about the climate, driving conditions, daylight hours, and extent of visitor services and facilities that they can expect at these times of year. This could be accomplished with the park website and other park informational materials, but it may also be necessary to reach visitors with safety information through state tourism publications, rental car companies, or other entities that interact with winter and shoulder season visitors to Alaska.

Inside park boundaries, the park should provide safe settings while maintaining opportunities for self-reliant recreation by modifying park procedures, facilities, or messaging rather than the wilderness character or environment of the park.

Desired Conditions

Previous park planning documents have established desired conditions for backcountry areas of the park (*2006 Backcountry Management Plan*) as well as the Park Road corridor and other frontcountry locations (*1997 Entrance Area and Road Corridor Development Concept Plan, 2012 Vehicle Management Plan*). Each of these documents also established management areas or zones of the park in which the desired conditions apply. The desired conditions and management areas designated by these previous planning documents apply year-round unless specifically stated otherwise.

The desired conditions outlined in the *Winter and Shoulder Season Plan* (Tables 1 - 6) add seasonally-appropriate nuance and detail to the management areas and desired conditions established by previous planning documents, but do not replace or supplant the pre-existing guidance. This added level of detail will help the park focus on resource issues of particular importance in the winter and shoulder seasons as well as more fully articulate the desired visitor experience during these seasons.

The desired conditions are grouped below by functional areas that categorize the park into regions that are useful when considering winter and shoulder season park use (Figure 2). These functional areas facilitate discussion of park management during these seasons, but do not replace the management areas and zones established by previous planning documents.

For the purposes of this plan, the winter and shoulder seasons are defined based on the yearly cycle of park operations, particularly those concerning the accessibility of the Park Road. These operations largely shape the experiences available to visitors and the resource impacts from visitor use of the park. Many of these operations are contingent on weather conditions, and are difficult to tie to a specific date each year.

- The fall shoulder season begins the day after the last day of Road Lottery, typically in mid to late September.
- Fall transitions into the winter season when wintry weather closes the Park Road, typically at the Headquarters gate near mile three of the Park Road, and it is not plowed open again when the weather breaks.

- Winter transitions into the spring shoulder season when spring road opening operations permit public vehicle traffic west of the Mountain Vista rest area, typically in mid-April.
- The spring shoulder season transitions into summer when the full complement of summer services and facilities are open to the public, typically in mid to late May. This has included tour and transit bus service west of Teklanika, restriction of private vehicles west of the Savage River, operation of all entrance area facilities including the Denali Visitor Center and Denali Bus Depot, and the operation of all roadside campgrounds except Wonder Lake.

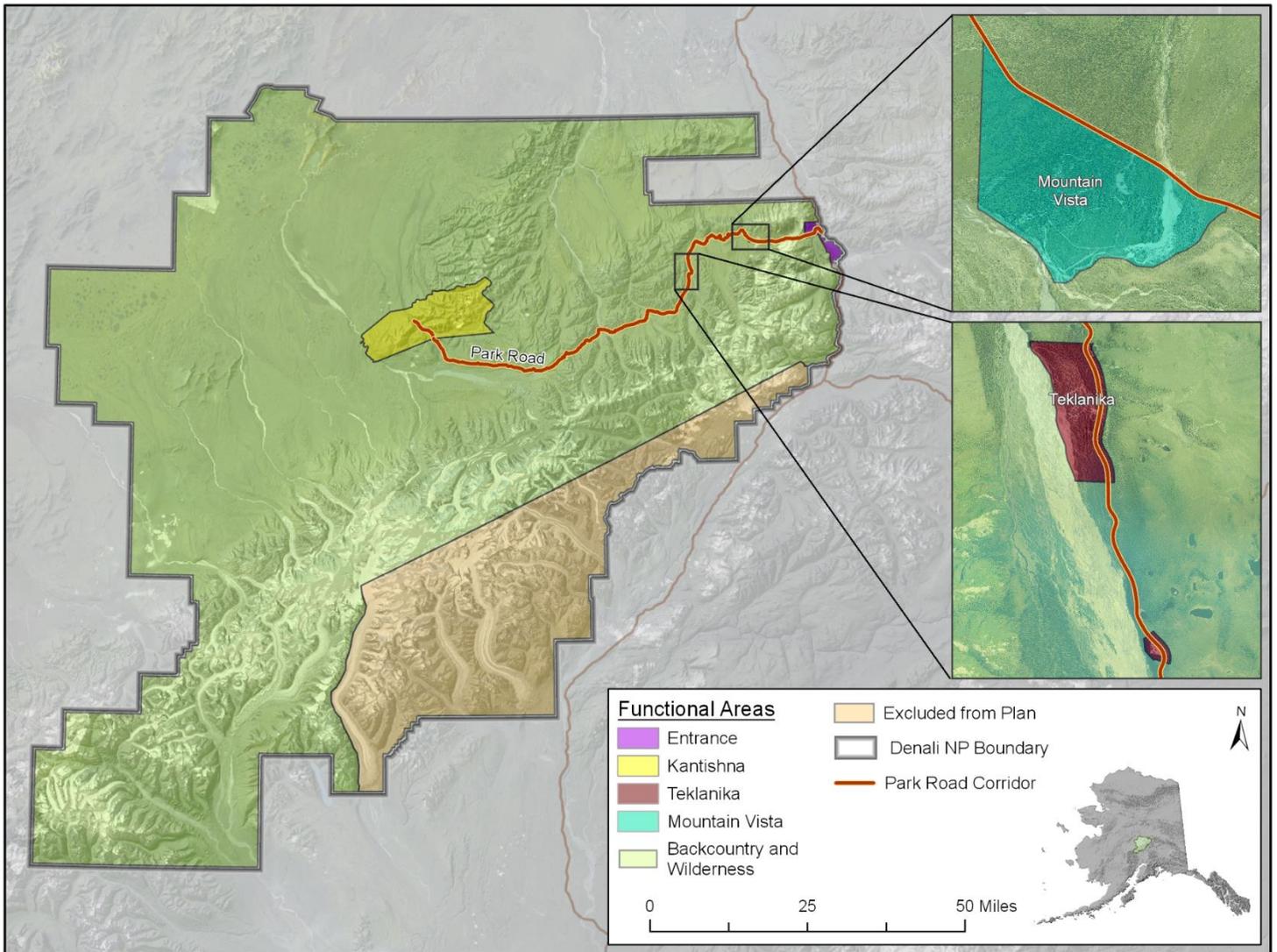


Figure 2. Winter and Shoulder Season Plan functional areas.

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

This area includes the ineligible wilderness from the bridge over the Nenana River at mile 231 of the Parks Highway north to the former Mount McKinley National Park boundary near Mt. Healy, and west

along the Park Road corridor until just west of Headquarters, including the Headquarters area. The areas between the Parks Highway and the Nenana River and any development proposed there are also included.

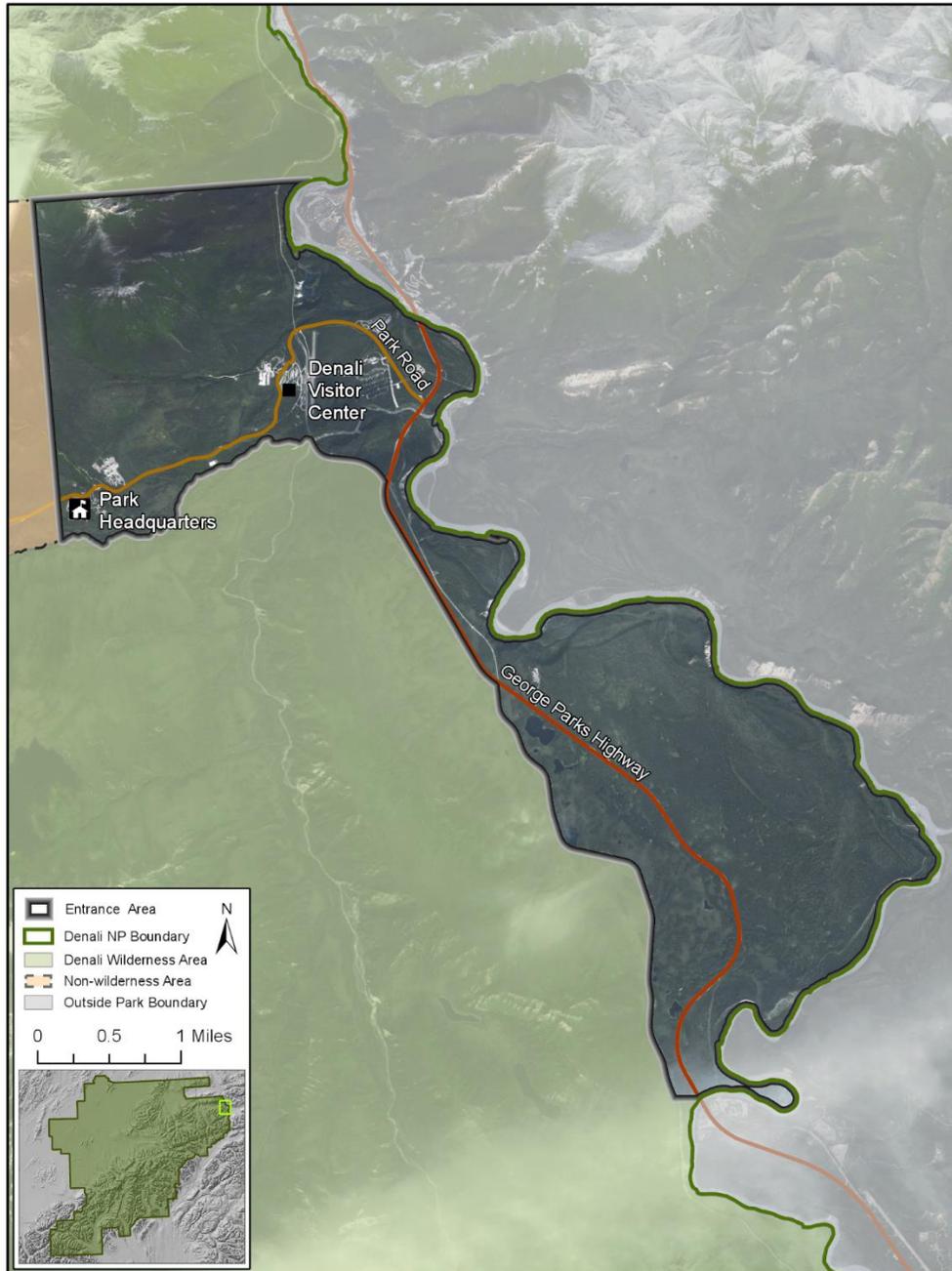


Figure 3. Entrance area - Headquarters and MP 231 / Nenana River trails area

Table 1. Desired conditions for the entrance area to Headquarters and milepost 231 / Nenana River trails areas

	Winter	Shoulder Seasons
Entrance – HQ & MP 231 / Nenana River Trails		
Overview	This area serves as a relatively structured gateway to other, wilder portions of the park. Compared to other areas in the park, this area most heavily moderates visitor interactions with the Alaskan winter through the availability of services, information, and facilities. Visitors can also have a less structured winter experience here. Facilities and trails are relatively easy to navigate, and the entrance area is a welcoming place for people with varying degrees of skill, available time, and desire to interact directly with the winter environment.	In the shoulder seasons, the entrance area feels and functions like a quieter, less active version of what occurs here in summer. Visitors can spend their time exploring the area, or pass through on their way to other adventures in the park. Administrative presence is high, and facilities and trails are relatively easy to navigate. The visitor center appropriately accommodates the level of shoulder season visitation. Trails may be closed seasonally, especially during the spring thaw, to prevent resource damage.
Visitor Experience	A variety of visitor opportunities that accommodate a diversity of skill levels is easily accessible in this area, including indoor time at the visitor center, on-trail experiences, and the opportunity to independently venture off-trail. Visitors are equally well-served by this area whether it is their sole destination or the beginning of a longer experience that includes other areas of the park.	The entrance area provides a gateway to the park as well as an interesting destination in its own right during the shoulder seasons. Although many of the amenities of summer may not be available (e.g., baggage claim, bus ticketing), visitors can expect information, interpretation of park resources, and reasonable comfort here. The visitor center provides adequate space and facilities for shoulder season visitation levels. Hiking, biking, and other recreational opportunities are available in the shoulder seasons, although some trails may be closed for portions of the season.
Resources	Although sounds of human use (vehicles, large groups) are present, the soundscape is often in its natural state, and visitors have the opportunity to experience stretches of silence, especially as distance from roads and facilities increases. This area of the park has the highest concentration of artificial light. Even so, artificial light sources are kept to a minimum to provide for visitor and employee safety. Night skies are clearly visible. Wildlife that exists in this area is largely undisturbed by visitor activity, and human-wildlife interactions are minimal. Visitor use of off-trail areas beyond existing winter travel routes has minimal to no adverse impact on vegetation.	Although sounds of human use (vehicles, large groups) are present, the soundscape is often in its natural state, and visitors have the opportunity to experience stretches of silence, especially as distance from roads and facilities increases. Wildlife that exists in this area is largely undisturbed by visitor activity, and human-wildlife interactions are minimal. Management actions, including temporary closures, may be instituted when necessary to protect wildlife and visitor safety.

Plowed / Open Section of Park Road

Winter

In the winter season, the plowed section of Park Road includes any portion of the Park Road that is plowed for public vehicle access west of the gate at Headquarters. When unplowed, these portions of road would be considered part of the unplowed section of Park Road functional area.

Shoulder Seasons

During the spring and fall, the open section of Park Road area includes any portion of the Park Road that is open to public vehicle traffic. This has typically encompassed the Park Road from the entrance to the gate near the Teklanika rest area.

Table 2. Desired conditions for the plowed or open section of Park Road area

	Winter	Shoulder Seasons
Plowed / Open Section of Park Road	<p>Portion of road plowed west of Headquarters Only relevant in concepts where the road is plowed west of Headquarters</p>	<p>Portion of Park Road accessible to private vehicles</p>
Overview	The plowed portion of the Park Road provides vehicular and non-motorized (pedestrian, bicycle) access to the park. The road is open only when safe driving conditions are present. The emphasis is on viewing wildlife and scenery as well as providing access for non-motorized excursions off the road corridor.	Affordable, sustainable access that provides opportunities for independent exploration is a priority. Although commercial users and / or shuttles may be operating, independent access remains important. Vehicular road access west of the Savage River allows for private vehicles to a greater extent than during the summer season. Limits on the number of vehicles allowed west of Savage or other management actions affecting vehicle access may be instituted if needed to provide for wildlife protection and visitor experience.
Visitor Experience	The plowed portion of the Park Road offers relatively easy access farther into the park for visitors wishing to view wildlife and scenery or begin an overnight or day trip into the backcountry. Other visitors are frequently encountered, including independent travelers and commercial groups. Visitors can expect the road to be closed when safe driving conditions cannot be maintained.	Visitors are able to independently explore this section of road which is normally closed to most private traffic. Visitors may travel in an unhurried, uncrowded manner. Encounters with other visitors may be common, but the road has an open, remote quality, and traffic congestion does not adversely impact the visitor experience.
Resources	The natural soundscape of the plowed road is disturbed by vehicle traffic at times. Although there may be long periods of time without the presence of vehicles, vehicle traffic and its associated noises can be present any time the road is open. Night skies are generally unaffected by artificial light. The NPS does not provide any artificial light installations. Wildlife on the road are treated in the same manner as they are during the summer, with little to no disruption of wildlife movement, feeding, or other behaviors.	The natural soundscape of the open section of the road may be disturbed by vehicle traffic with portions of time when natural sounds dominate. Wildlife on the road are treated in the same manner as they are during the summer, with little to no disruption of wildlife movement, feeding, or other behaviors.

Unplowed / Closed Section of Park Road

Winter

In winter, the unplowed section of Park Road includes any portion of the Park Road that is not plowed to allow public vehicle access. Because this area begins at the western terminus of winter road plowing, the sections of road included in this area depend on whether winter road plowing is continued, and to what extent. For example, depending on decisions about winter road plowing the unplowed section of Park Road may include all of the road west of Headquarters, or the portion of road west of Mountain Vista. When plowed for public vehicle access, any portion of the Park Road would be included in the plowed section of Park Road area.

Shoulder Seasons

The closed section of Park Road includes portions of the Park Road that are closed to public vehicle access. During the height of the shoulder seasons, this has typically included the Park Road west of the gate near the Teklanika rest area.

Table 3. Desired conditions for the unplowed or closed section of Park Road area

Unplowed / Closed Section of Park Road	Winter	Shoulder Seasons
Overview	The unplowed Park Road provides non-motorized visitor access into the winter wilderness of Denali, as well as an easier-to-navigate winter route. From the visitor perspective, there is little that distinguishes the unplowed Park Road from the surrounding wilderness.	The closed section of the Park Road is essentially a trail for non-motorized recreational use in the shoulder seasons. Pedestrians and bicycles dominate the traffic, and although administrative motorized traffic maintains a presence, it does not adversely impact the visitor experience.
Visitor Experience	The unplowed section of the Park Road provides a backcountry experience for users of many ability levels. It is easy to access and its width and relatively gentle grades make portions of it suitable for beginner-level recreationists. For more experienced visitors and those desiring to go further into the park, the unplowed Park Road provides easier-to-navigate access. Multiple uses and a variety of ability levels may be accommodated simultaneously.	Visitors are encouraged to use non-motorized means to explore the park on the closed section of the Park Road. Although visitors may encounter other recreationists on the road and occasional motorized administrative use, crowding and administrative vehicular traffic does not adversely impact the visitor experience. Vault toilet restroom facilities on the closed portion of the Park Road are available for shoulder season use.
Resources	Resource conditions of the unplowed portion of the Park Road are nearly indistinguishable from resource conditions in surrounding wilderness, and wilderness character quality is high. Silence and natural sounds dominate. The NPS does not provide any artificial light installations on the unplowed portion of the Park Road, and the night sky is unaffected by artificial light. Wildlife that exists in this area is largely undisturbed by visitor activity, and human-wildlife interactions are minimal.	Silence and natural sounds dominate the soundscape. Wildlife on the road are treated in the same manner as they are during the summer, with little to no disruption of wildlife movement, feeding, or other behaviors.

Mountain Vista / Teklanika Areas

Winter

The Mountain Vista area includes the entire frontcountry developed area / ineligible wilderness surrounding the Mountain Vista rest stop and Savage campground. This area does not extend into surrounding designated wilderness. This area is an easily accessible visitor node during winter when the road is plowed as far as the Mountain Vista rest stop. If the park did not plow the road west of Headquarters during portions of the winter prior to spring road opening, this area would be treated as part of the unplowed section of Park Road area.



Figure 4. Mountain Vista area

Shoulder Seasons

The Teklanika area acts as a visitor node during the shoulder seasons when it is accessible to private vehicle traffic, and includes the Teklanika rest stop and the Teklanika campground. Current visitor use in this area is focused on the Teklanika rest stop, and the Teklanika campground is dormant and unused during the shoulder seasons. In the future, the Teklanika campground may play a larger role as overflow parking for the Teklanika rest stop or as a campground available during portions of the shoulder seasons (see the discussion of facilities for the Teklanika area, p. 48).

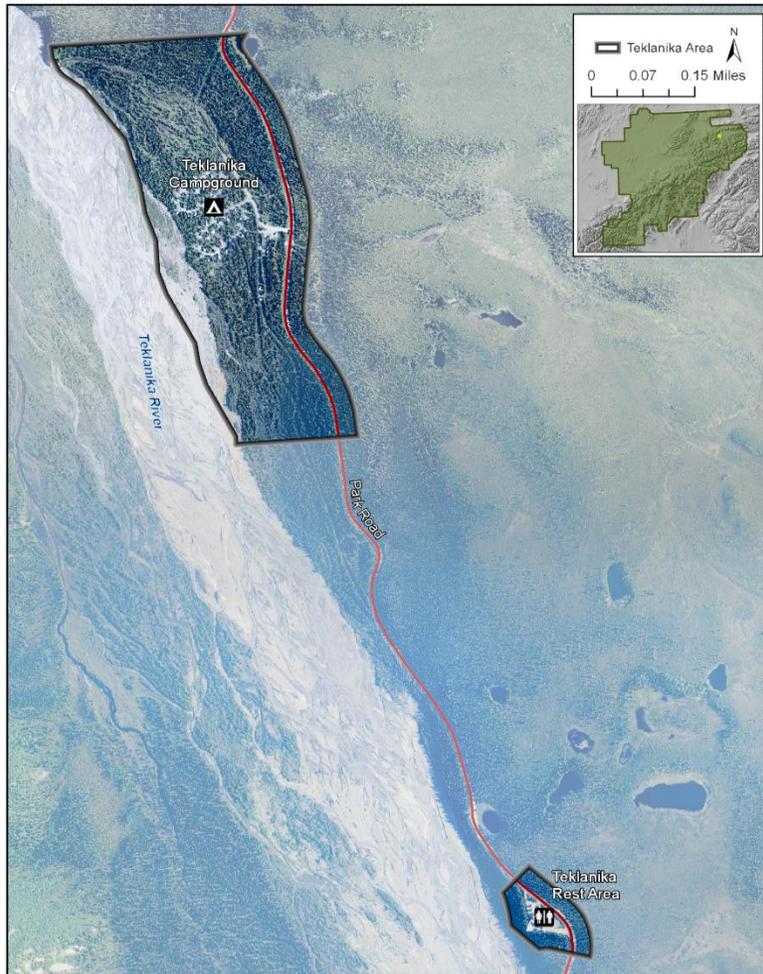


Figure 5. Teklanika area as described in the Winter and Shoulder Season Plan

Table 4. Desired conditions for the Mountain Vista and Teklanika areas

	Winter	Shoulder Seasons
<p>Winter: Mountain Vista</p> <p>Shoulder Seasons: Teklanika</p>	<p>Mountain Vista</p> <p>Only relevant in scenarios where the road is plowed west of Headquarters. Otherwise, this area would have conditions similar to the surrounding areas</p>	<p>Teklanika</p>
Overview	<p>This area provides a wilderness threshold experience in concepts where the road is plowed to Mountain Vista. Rest areas, parking areas, and NPS facilities are maintained. Trails and winter routes are available for visitors to explore. Established trails may have signage or wands to improve visitor experience and increase safety, but are generally maintained to a lesser degree than trails near the entrance area. Visitors may use these areas as a portal into the park, and are largely left to their own devices beyond plowed parking areas and maintained facilities.</p>	<p>As weather allows during the shoulder seasons, the Teklanika rest stop area is the terminus of vehicle traffic and a gateway for further non-motorized exploration of the park. As a visitor hub, the area includes maintained restrooms, parking areas, and interpretive installations. NPS presence is higher here than at other points along the open portion of the road, but typically not as high as in the entrance area.</p>
Visitor Experience	<p>This area provides a gateway into the wilderness of Denali. Facilities exist, but are relatively minimal and the overall experience is not as managed and structured as the majority of the experiences visitors have at the entrance area. For many visitors unaccustomed to route finding and the Alaskan winter, this area will provide all the characteristics of a wilderness experience. For other visitors, this area will feel like the last development on the edge of a vast wilderness.</p>	<p>As the terminus of vehicle traffic on the Park Road, the Teklanika rest stop area is a visitor hub in the shoulder seasons, though to a lesser extent than the entrance area. Visitors can expect to encounter many vehicles and other people in this area, but crowding does not adversely affect the visitor experience. Maintained restrooms and interpretive or educational signs and opportunities facilitate visitor use of the area although the overall visitor experience is not as structured as the majority of the experiences visitors have at the entrance area.</p>
Resources	<p>The soundscape in and around parking areas might be impacted by vehicle noise. This impact diminishes with greater distance from the road and parking areas. Vehicles are not allowed to idle in parking areas. Night skies are generally unaffected by artificial light. The NPS does not provide any artificial light installations. Wildlife that exists in this area is largely undisturbed by visitor activity, and human-wildlife interactions are minimal. Visitor use of off-trail areas beyond existing winter travel routes has minimal to no adverse impact on vegetation.</p>	<p>The soundscape in and around parking areas might be impacted by vehicle noise and a relatively high concentration of people. This impact diminishes with greater distance from the road and parking areas. Wildlife that exists in this area is largely undisturbed by visitor activity, and human-wildlife interactions are minimal.</p>

Kantishna

The Kantishna area includes the 1980 park additions north of Wonder Lake that consist of the backcountry day use area established by the 2006 BCMP and backcountry units 41, 42, and 43. This definition is consistent with the definition of the Kantishna area outlined in the 2019 *Kantishna and Wonder Lake Area Plan*.

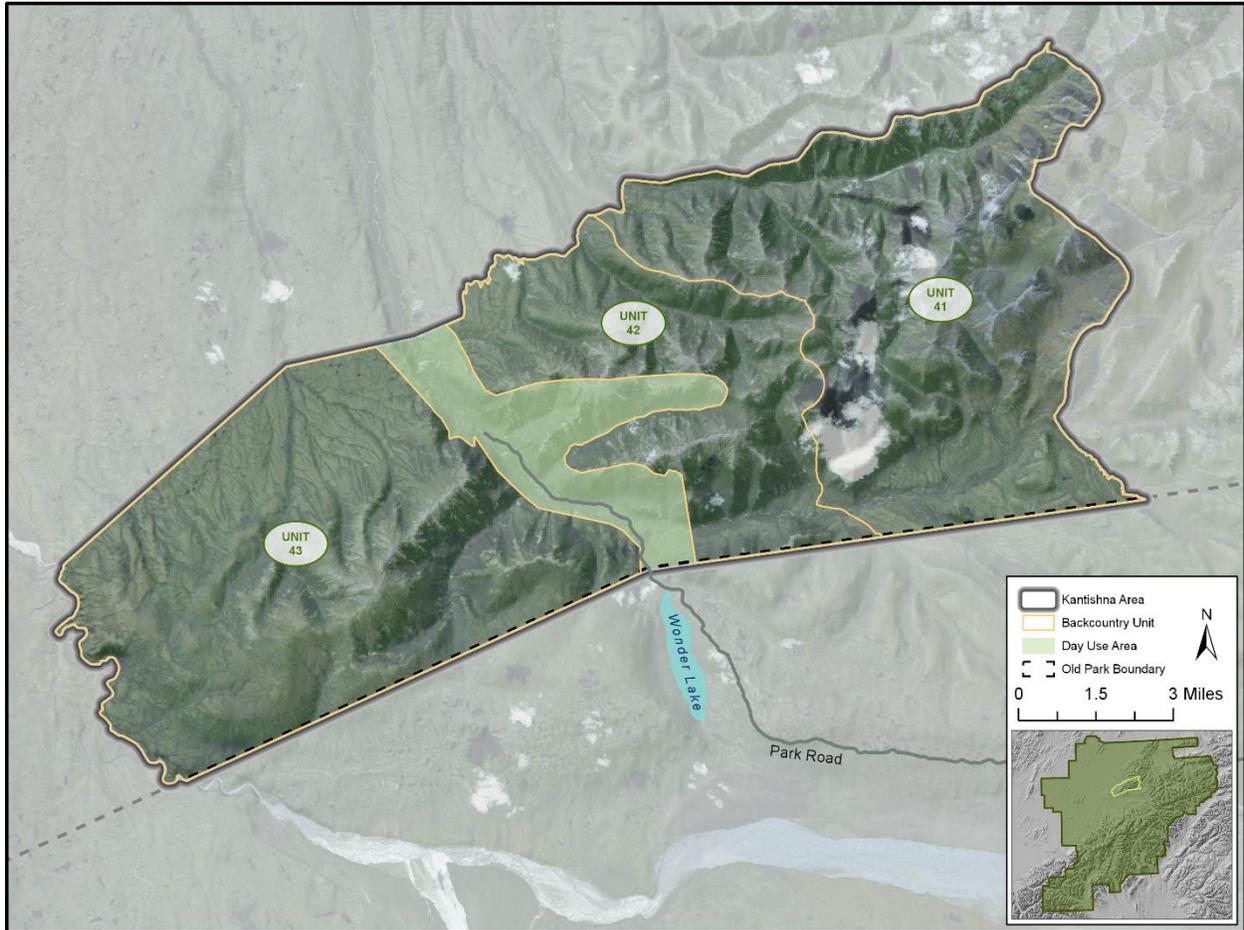


Figure 6. Kantishna area as described in the Winter and Shoulder Season Plan

Table 5. Desired conditions for the Kantishna area

	Winter	Shoulder Seasons
Kantishna		
Overview	This area provides a visitor experience that is largely similar to that of the areas that surround it (backcountry and designated wilderness). It shares many characteristics of a wilderness experience, but there are signs of development (e.g., buildings, lodge activity).	This area provides a visitor experience that is largely similar to that of the areas that surround it (backcountry and designated wilderness). It shares many characteristics of a wilderness experience, but there are signs of development (e.g., buildings, lodge activity).
Visitor Experience	The visitor experience in Kantishna is similar to that of the surrounding designated wilderness and backcountry areas. Because of the possibility of air taxi landings on the Kantishna airstrip, motorized use in the area, existing facilities, and private development or commercial use, this area feels more developed than other surrounding areas and is more accessible.	The visitor experience in Kantishna is similar to that of the surrounding designated wilderness and backcountry areas. Because of the possibility of air taxi landings in Kantishna, existing facilities, and private development or commercial use, this area feels more developed than other surrounding areas and is more accessible.
Resources	Motorized use might be present in the Kantishna area for traditional activities, but at relatively low levels. Usually, the soundscape is relatively undisturbed and there are long periods of time where natural sounds dominate. Night skies are generally unaffected by artificial light. The NPS does not provide any artificial light installations. Wildlife are largely unaffected by human presence. Visitor use of off-trail areas beyond existing winter travel routes has minimal to no adverse impact on vegetation.	The soundscape is relatively undisturbed, despite any private development in Kantishna. Natural sounds dominate the vast majority of time. Wildlife are largely unaffected by human presence during these sensitive times of year.

Backcountry and Wilderness Areas

The backcountry and wilderness areas consist of any park areas included in the *Winter and Shoulder Season Plan*, and not otherwise categorized. This includes, for example, the designated wilderness of the park as well as the preserve areas and the 1980 new park additions not excluded by the plan or in the Kantishna area.

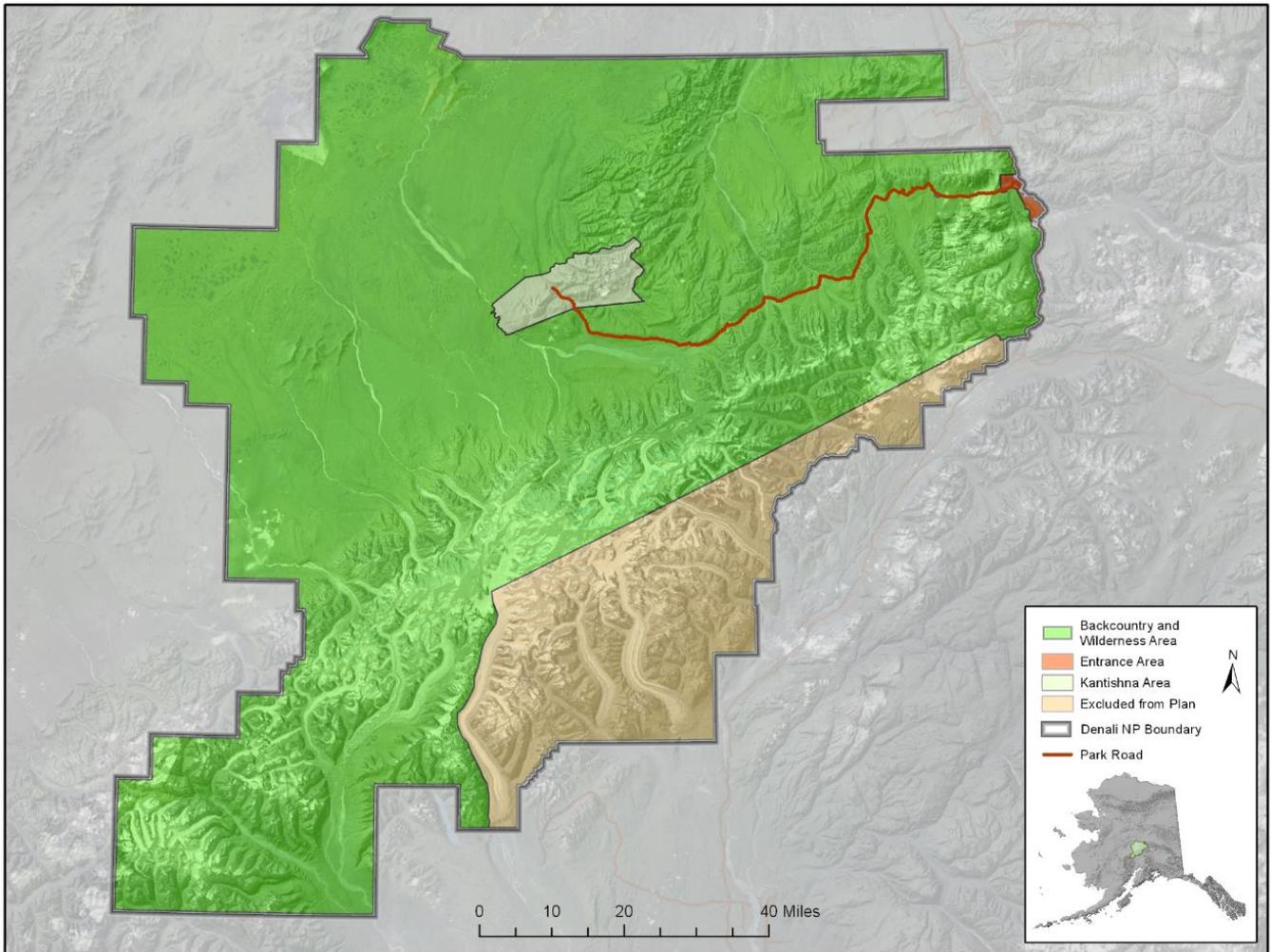


Figure 7. Backcountry and Wilderness areas as described in the *Winter and Shoulder Season Plan*

Table 6. Desired conditions for backcountry and wilderness areas

	Winter	Shoulder Seasons
Backcountry and Wilderness Areas		
Overview	The wilderness and backcountry areas of Denali National Park offer solitudinous and self-reliant visitor experiences in backcountry and wilderness settings. The winter environment functions as naturally as possible, and is undisturbed by development.	During the shoulder seasons, the wilderness and backcountry areas of Denali National Park function much the same as they do during the summer season. Visitor use is dominated by day hiking and overnight backpacking.
Visitor Experience	The emphasis in these areas is on wild and backcountry experiences. Visitors must be prepared to be fully self-reliant, and trails, facilities, and NPS personnel are present at much lower levels than in other areas of the park. However, NPS staff do occasionally patrol and may informally create routes that may be followed.	The visitor experience in these areas of Denali during the shoulder seasons is largely similar to that of the summer. In most areas, visitors can expect to see few, if any, other people and signs of modern human use are rare. Use is dominated by day hiking and overnight backpacking.
Resources	The wilderness character of these areas is intact and preserved to the greatest extent. The soundscape is as close to natural as is possible. Silence and natural sounds dominate. Night skies are unaffected by artificial light. Wildlife are largely unaffected by human presence. Visitor use of off-trail areas beyond existing winter travel routes has minimal to no adverse impact on vegetation.	The wilderness character of these areas is intact and preserved to the greatest extent. The soundscape is as close to natural as is possible. Silence and natural sounds dominate. Wildlife are largely unaffected by human presence during these sensitive times of year. Visitor use of off-trail areas has minimal to no adverse impact on vegetation.

Possible Future Needs

Stampede Corridor and Northern Routes Area

The area of the 1980 new park additions along the Stampede corridor and extending toward Kantishna is currently used by relatively small numbers of motorized and non-motorized recreationists (Figure 8). At current use levels this region does not appear to merit separate attention as a functional area.

If use were to substantially increase, the Stampede corridor might warrant more specific management direction. It may be desirable, for example, to designate separate routes for motorized and non-motorized user groups, or to formally establish the Stampede route as a winter travel corridor similar to other corridors discussed in the 2006 BCMP.

It may be efficient to study visitor use of the Stampede area in conjunction with planned studies of winter use in southern new park addition areas, and to address visitor opportunities in these areas at the same time.

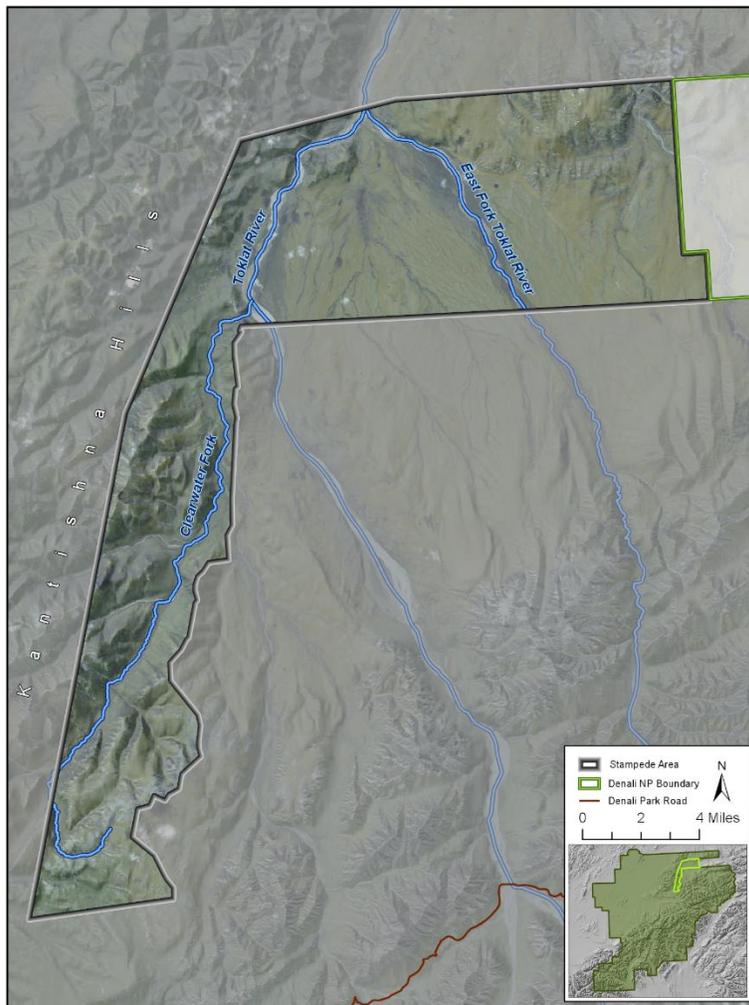


Figure 8. Possible Stampede corridor area, if future needs develop

Range of Considered Proposals

This section explores ideas to address access, trails, facilities, commercial opportunities, and the visitor experience in different areas of the park. Multiple contrasting options describe various directions that the NPS may decide to pursue.

Access

Current Condition

Currently, summer access to the Park Road ends at the conclusion of Road Lottery in mid-September. During the fall shoulder season following Road Lottery, private vehicles are allowed to access a portion of the Park Road, typically to the Teklanika rest area. This access stops when the first winter weather of the year prompts closure of the Park Road at Headquarters (approximately mile 3). Until 2014, the Park Road was closed to motor vehicle traffic until spring road opening efforts opened the road to private vehicle traffic to the Savage River area followed by the Teklanika rest area, typically in mid-April.

In 2014, the park began a five-year trial period of plowing the Park Road to the Mountain Vista rest area (approximately mile 13 of the Park Road) beginning in mid-February. This trial period expired in 2018, but was extended until a more comprehensive planning initiative could address winter plowing of the Park Road.

After the road is opened to private vehicle traffic to the Teklanika rest area in mid-April, concessioner-operated tour buses begin operating in early to mid-May. This is followed in late May by the beginning of the summer season, including transit and tour bus service west of the Teklanika rest area and the concurrent restriction of private vehicle access west of the Savage River.

Denali has typically received less visitation during the fall shoulder season (typically mid-September – October) than during the spring shoulder season (typically mid-April – May) (NPS, 2019). The fall shoulder season consequently has generally had less commercial activity, fewer vehicles on the Park Road, and fewer resource concerns than the spring shoulder season.

In the past, private vehicles have been allowed unrestricted access to the Park Road as far west as the Teklanika rest area from the end of Road Lottery in mid-September until the first winter weather of the season closes the Park Road at Headquarters, typically in mid-October. Bus tours operated by the transportation concessioner have operated until shortly after Road Lottery in mid-September.

Other current means of access to the park during the winter and shoulder seasons include the McKinley airstrip near the park entrance, the Kantishna airstrip, and the Alaska Railroad depot. Park access related to trails is covered in the Trails section (p. 36).

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

This area serves as the primary access point for most park visitors, and current means of access are likely to be maintained. The park will consider maintaining the current levels and modes of park access in the Entrance Area – Headquarters and Milepost 231 area, including access via the Parks Highway, the Park Road, the McKinley airstrip, and the railroad depot.

Plowed / Open Section of Park Road

Winter – Section of Park Road plowed west of park Headquarters

Option 1. The park could consider terminating the winter road plowing trial that began in 2014 and reverting to the previous regime of closing the Park Road at Headquarters in the fall with the first winter weather, and not plowing until spring road opening efforts begin, typically in mid-March. This would limit vehicular access to the park during winter months, but would also eliminate impacts to wildlife, soundscape, and wilderness character that stem from winter road plowing. Commercial services and other visitor opportunities afforded by winter plowing could be focused instead in the entrance area of the park, and the unplowed Park Road surface west of Headquarters could be used for non-motorized recreation. The plowed section of Park Road functional area would no longer exist.

Option 2. The park could also consider continuing the winter plowing effort that began in 2014. This would allow for a motorized sightseeing opportunity in the park during the winter, provide easier access to more of the park, and provide easier access to a greater variety of terrain for non-motorized recreationists in a way that minimizes plowing impacts to park resources.

Winter plowing, if conducted, should begin no earlier than February, and should not extend further west than the Mountain Vista area. Plowing the road and having it open to the public before mid-February would increase costs and resource impacts during a time of year when visitation has historically been at its lowest, daylight is severely limited, and staffing levels are generally low. A mid-February opening of the road to public traffic coincides with a return of daylight and an associated increase in visitation across Alaska, including Denali (Alaska Department of Commerce, 2018). Road opening dates at this time in the winter season make it financially viable for the park to staff road and facility maintenance activities, provide an improved and safer visitor experience, and moderate resource impacts from plowing. Although weather, snow accumulation, and ice formation all impact how easily the road is plowed, striving for a consistent opening date in mid-February, such as February 15, would allow park operations, businesses, and visitors to anticipate and plan around a known road opening date.

The Mountain Vista rest area is an ideal location for the terminus of winter road plowing. It has ample parking, restrooms, trails, and informational signs. Regular winter plowing of the gravel portion of the Park Road beyond the Savage River has the potential to damage the road surface, and may impact the road's usability during the summer season. An increased extent of winter road plowing would also increase the impact of plowing on park resources. For these reasons, the NPS is not considering, and does not intend to consider, winter plowing of the gravel portion of the Denali Park Road.

The Savage rest stop area has many of the advantages of the Mountain Vista area, and would provide access to approximately three additional miles of the Park Road. However, it could be more difficult for multiple buses and other vehicles to park and turn around in the Savage area and there is often a great deal of snow and ice accumulation on the road between Mountain Vista and Savage that would require special attention. The trails in the Savage area are also more prone to ice accumulation and damage from visitor use when wet or icy, presenting hazardous hiking conditions.

If the winter plowing that began in 2014 is continued, access to the plowed road could continue to be allowed for both private vehicles and commercial tours. Access to the plowed portion of the Park Road for private and commercial tours would be entirely contingent on the presence of safe driving conditions.

Vehicular road access would not be allowed during periods of time when safe driving conditions could not be maintained.

Future Considerations for Winter Road Access

Potential future changes to visitation levels and other conditions may indicate that winter access to the plowed portion of the Park Road should be managed differently. Substantially decreased winter visitation, for example, may affect the value of providing a motorized sightseeing opportunity, and could result in the park stopping winter plowing efforts.

For the reasons outlined above, increased visitation would not automatically indicate that an earlier start date or further extent of plowing would be warranted. Rather, the park could decide to manage access to the plowed road for increased numbers of visitors differently. This could include offering shuttle service to Mountain Vista in order to relieve crowding, decrease wildlife disturbance, and provide a safer visitor experience. If increasing visitor numbers or other factors created an increase in safety issues, these issues could also be mitigated by limiting private vehicle access by permit and/or offering or requiring shuttle use.

However, the NPS may consider plowing to Mountain Vista for a greater portion of the year if conditions change and the park is operationally able to support and sustain such an effort. For example, substantial increases in visitation throughout all months of the winter or significant changes in snow and ice accumulation may make plowing to Mountain Vista year-round a more viable option that the park may wish to pursue in the future.

Any change in management of winter access to the plowed Park Road should be based on social and environmental indicators such as crowding and wildlife impacts as well as considerations of road conditions, safety, and the availability of staffing and facilities (see *Monitoring and Adaptive Management*, p. 69).

Shoulder Seasons – Section of Park Road open to public vehicle traffic

Principles Guiding Shoulder Season Vehicle Access

The desired shoulder season visitor experience on the open section of Park Road is uncrowded, quiet, and allows for a greater degree of independent exploration than the summer season. Shoulder season access to the Park Road should be managed to maintain these qualities to the greatest extent possible, while minimizing impacts to park resources. Previous visitor studies and preliminary public commentary received on the *Winter and Shoulder Season Plan* indicate that visitors highly value private vehicle access and limitations on the spread of summer services and development into the shoulder seasons (NPS, 2013). Maintaining a shoulder season visitor experience that is distinct from summer would allow the park to connect with and better serve visitors, including many Alaskans, who may be displaced by the scale and intensity of summer visitation.

Visitor use of the Park Road during the shoulder seasons has the potential to impact wildlife, particularly in the spring. Previous studies have demonstrated that park wildlife are sensitive to the number of vehicles on the road, the times of day with vehicle traffic, and the existence of periods of time without vehicle traffic (Philips & Meier, 2010). Although it is important to maintain a visitor experience that allows for independent exploration and a distinction from the summer experience, vehicle access to the park road must be managed to minimize adverse impacts to park wildlife. When shoulder season vehicle

impacts on wildlife are fully understood, this may warrant limitations on the overall number of vehicles allowed access to the Park Road in the shoulder seasons or closer management of when vehicles are allowed on the Park Road (see sections on Future Considerations, p. 34; Monitoring and Adaptive Management, p. 69)

Several additional principles guide the way the NPS could manage shoulder season access to the open section of park road. First, decisions about shoulder season road access ultimately affect the volume of visitation that the park will experience and the types of facilities and services necessary to support that volume. The shoulder seasons have increasingly become times of year when visitation is high, but park facilities and services do not have high capacity due to staffing, infrastructure, and climate constraints. Decisions affecting the type and volume of park road access in the shoulder seasons should recognize the connection between park road access, visitation volume, and the services and facilities needed to support that volume of visitation.

Secondly, the connection between large bus tours and other visitor services should be tighter. Currently, large bus tours operate in the spring and fall shoulder seasons without the operation of shuttle services, frontcountry food services, or a visitor center capable of handling high volumes of visitors. To provide more consistent access to the park, any large bus tour operation should be concurrent with shuttle service and other basic necessities such as food and restroom facilities.

In summary, decisions regarding shoulder season vehicle access to the park road should:

- Preserve the desired uncrowded, quiet, and independent visitor experience
- Minimize adverse impacts to wildlife from the number and timing of vehicles on the Park Road
- Maintain a distinction from the summer visitor experience
- Recognize how decisions affecting shoulder season road access impact the amount of visitation and the services and facilities necessary to support that visitation
- Provide shuttle service, an adequate visitor center, and entrance area food service concurrently with large bus tours

Options for Spring Shoulder Season Vehicle Access

A number of variables affect the visitor experience and resource and facility impacts from spring road access. Among the most important of these variables are the type of vehicle that is allowed on the park road, the distance that those vehicles are allowed to travel, and the date at which different types of vehicles are allowed road access. The scenarios below describe three plausible combinations of these variables among the many different ways that options for vehicle type, distance, and date of access could be combined.

Option 1. It could be possible for the park to meet visitor expectations and achieve the desired visitor experience and resource conditions by continuing to allow road access as at present:

- Subject to weather conditions, private vehicles have unrestricted access to the Park Road west to the Teklanika rest area in the spring and fall
- Large bus tours start around May 10 and go as far as the Teklanika flats turnaround (approximately mile 26 of the Park Road)

- No commercial use authorization (CUA) operators have access to the Park Road beyond Mountain Vista and the date range of the winter activities CUA permit (currently mid-February - May 10)

This would allow for maximum unfettered access to the Park Road for independent visitors with private vehicles as well as relatively extensive access and an early start in the spring season for high-volume package tours. The extent of large bus tours may negatively impact the uncrowded and independent experience desired by many visitors, however, and there are no vehicle access options for visitors who do not want to be on a tour and do not have access to a private vehicle.

Option 2. The park could also consider retaining unrestricted private vehicle access while managing commercial vehicle access differently than at present:

- Subject to weather conditions, private vehicles have unrestricted access to the Park Road west to the Teklanika rest area in the spring and fall
- Large bus tours begin at the start of the summer season, when private vehicles are stopped at the Savage check station (typically May 20) and continue to operate as normal for the summer season without extending into the fall
- A limited number of smaller vehicle tours (under 8,800 lbs. GVWR, 12 passenger van or similar) may operate to the Teklanika rest area during the spring season
- Smaller vehicle shuttle service is encouraged as a commercial opportunity to serve visitors without access to a private vehicle

Under this configuration, independent visitors with private vehicles would retain a maximum degree of access. Small business owners and commercial operators would have the opportunity to serve visitors with smaller vehicle tours, providing access to tour groups in a way that is less impactful to other visitors and park facilities than large volume tours. Visitors without private vehicles who do not wish to take a tour or who want to spend more time in the park than a tour would allow could utilize the smaller vehicle shuttle service.

Option 3. Another option for shoulder season Park Road access could be:

- Subject to weather conditions, private vehicles have unrestricted access to the Park Road west to the Teklanika rest area in the spring and fall
- Large bus tours start around May 15 and go as far as the Primrose pullout (approximately mile 16). Large bus tours do not operate in the fall after Road Lottery
- A large bus shuttle system starts around May 15 and goes to the Teklanika rest area
- A limited number of smaller vehicle tours (under 8,800 lbs. GVWR, 12 passenger van or similar) may operate to the Teklanika rest area during the spring season

This option preserves maximum access for private vehicles and allows for a large bus tour option that has a minimal impact on the experience of other visitors and park facilities. Small business owners and commercial operators are also afforded the opportunity to provide smaller vehicle tours, while

independent visitors who do not have access to a vehicle could take advantage of the shuttle that operates during most of the spring season.

Under any possible scenario for access to the open section of the Park Road during the shoulder seasons, access would only be allowed when conditions allow for safe driving and a lack of damage to the road surface. Access for vehicles, visitors, and businesses would be entirely contingent on these conditions and could not be guaranteed on specific dates or for specific uses.

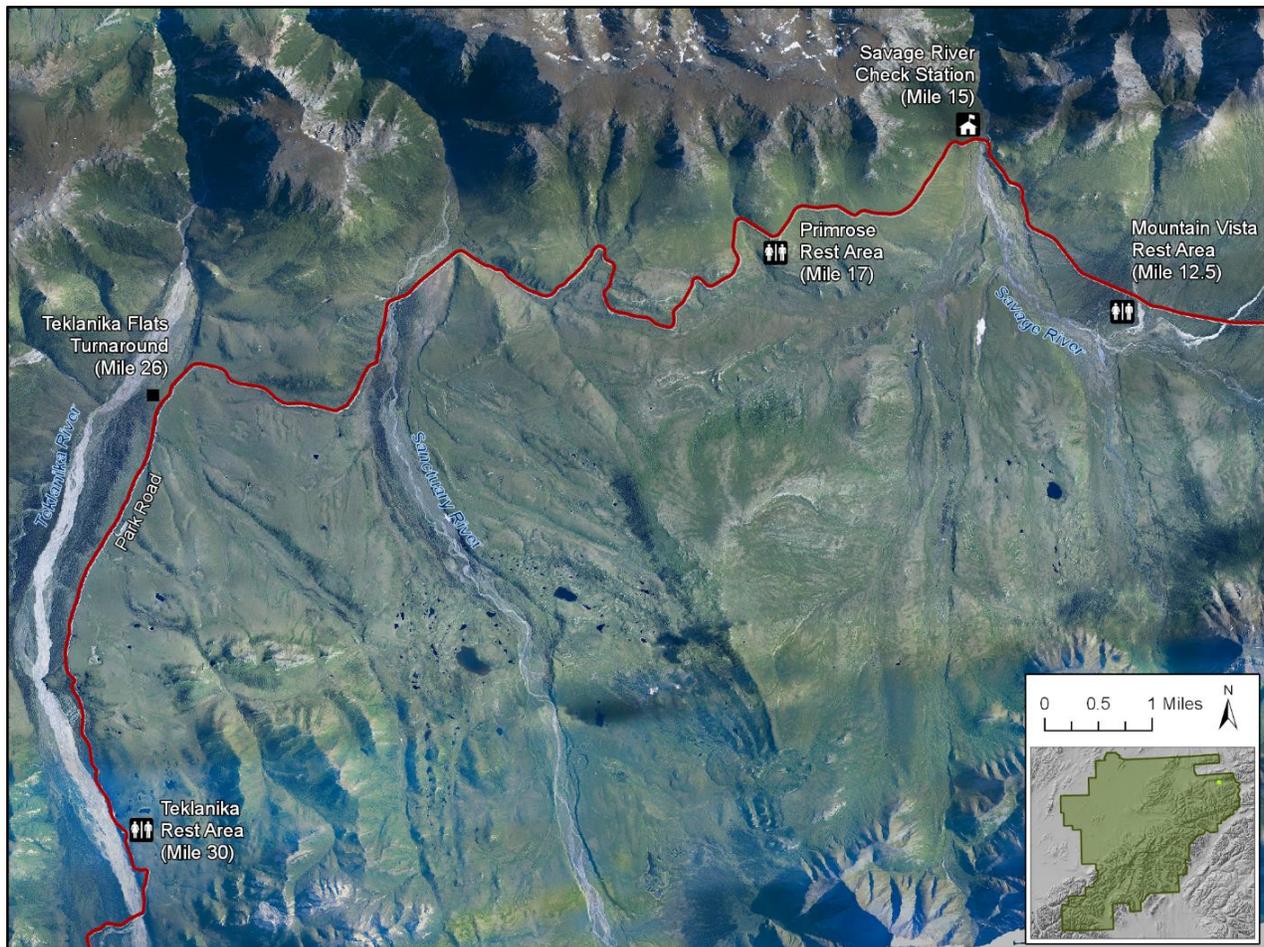


Figure 9. Landmarks on the Denali Park Road relevant to shoulder season road access

Options for Fall Shoulder Season Vehicle Access

Similar to the spring shoulder season, a number of variables affect the visitor experience and resource and facility impacts from fall road access. Important variables for vehicle access to the Park Road in the fall include the type of vehicle that is allowed on the park road, the distance that vehicles are allowed to travel, and the date at which vehicle road access is ended for the season. The scenarios below describe plausible combinations of these variables among the many different ways that options for vehicle type, distance, and date of access could be combined.

Option 1. The NPS could continue to manage vehicle access to the Park Road as it has in the past.

- Private vehicles have unrestricted access to the Park Road west to the Teklanika rest area
- Commercial tours operate to the Teklanika flats turnaround through the last week of Road Lottery
- The first wintry weather of the season closes the Park Road at Headquarters, and the road does not open again until spring road opening (mid-April) or winter road plowing (mid-February) begins

This allows for maximum road access for visitors with private vehicles, as well as an opportunity for commercial tours to operate during a portion of the fall season. Closing the Park Road based on weather conditions may mean that the road remains open beyond the ability of the NPS to provide custodial services to roadside restrooms, and could have implications for staffing and funding needs (Operational Implications, p. 65). It may also mean that an early bout of winter weather could close the park road for the season, even if conditions improve and the road is passible again later in the fall.

Option 2. The park could also consider allowing vehicles access to the Park Road as at present, but allowing the road to open and close based on the presence of safe driving conditions, irrespective of whether the road had initially closed due to winter weather.

- Private vehicles have unrestricted access to the Park Road west to the Teklanika rest area
- Commercial tours operate to the Teklanika flats turnaround through the last week of Road Lottery
- The first wintry weather of the season closes the Park Road at Headquarters, but if conditions improve and allow for safe driving, the road is re-opened as far as conditions allow, west to the Teklanika rest area

This allows for maximum road access for visitors with private vehicles, as well as an opportunity for commercial tours to operate during a portion of the fall season. Allowing the road to re-open based on favorable weather conditions would provide additional recreational opportunities, but could require increased NPS staff for maintenance and other duties later into the year than at present.

Option 3. The NPS could commit to maintaining vehicle access to a portion of the Park Road through a specific date.

- Private vehicles have unrestricted access to the Park Road west to the Teklanika rest area
- Commercial tours operate to the Teklanika flats turnaround while the road is actively made accessible to vehicles
- The NPS commits to keeping the road open for vehicle access to the Teklanika or Mountain Vista rest areas through a specific date (e.g., October 15 or 31). After this date, the road closes at Headquarters with the first winter weather

Committing to a specific span of time during which the road would be maintained open to vehicles would provide a level of predictability to members of the public, commercial operators, and NPS operations. Committing to access later in the season and keeping the road open as conditions allow past the date of

assured access provides additional recreational opportunities, but could require increased NPS staff for restroom maintenance and other duties later into the year than at present, and could be precluded by weather.

Shoulder Season Parking on the Open Section of Road

Wilderness recreation is foundational to Denali's purpose, significance, and values, and maintaining access for wilderness recreation is important. Without a shuttle service offered in the shoulder seasons, private vehicles are the only practical means of access for day and overnight trips in the park backcountry, and access to the backcountry adjacent to the Park Road necessitates parking along the Park Road. Vehicle parking on the Park Road is prohibited unless specifically authorized by the Superintendent (36 CFR 4.13(a)).

During the summer season, a limited number of designated parking areas are permitted for vehicles on the Park Road. However, requiring shoulder season visitors using the backcountry to park in a limited number of designated areas could concentrate their use, in effect creating "trailheads" and possibly leading to resource damage.

Until an alternative means of access is offered during the shoulder seasons (i.e., a shuttle), the superintendent could authorize visitors to park on the open section of Park Road in any location that is not unsafe and that does not obstruct traffic. The superintendent could also authorize shoulder season parking in all locations identified for temporary stops during the summer season that do not obstruct traffic. If and when an alternative means of access is offered, visitors accessing the park backcountry could be required to use that option, and authorized parking on the open section of Park Road for shoulder season visitors could be revoked.

Future Considerations

Access to the open section of the Park Road during the shoulder seasons is contingent on the extent to which resources are impacted by that access. Wildlife is a resource of key concern during the shoulder seasons. The amount and nature of traffic on the Park Road can affect the ability of wildlife to cross the road, and increasing numbers of visitors during the spring and fall could lead to increased human-wildlife interaction and the potential for wildlife harassment on the Park Road.

Any changes to shoulder season Park Road access should reduce rather than continue or exacerbate impacts to wildlife and other resources, including the surface of the road itself. If shoulder season visitation were to increase or otherwise substantially change in the future, the park could consider managing Park Road access to preserve resources in different ways than outlined above. This could be accomplished by, for example:

- Allowing private vehicle access by permit or lottery only, with NPS staff checking permits at the Savage River check station (approximately mile 15 of the Park Road)
- Offering shuttle service instead of private vehicle access
- Limiting commercial access to weekdays only to avoid crowding and congestion on weekends

Any changes to Park Road access should attempt to preserve the uncrowded and quiet desired visitor experience, and ensure that the shoulder season visitor experience is distinct from the summer visitor experience on the Park Road.

Unplowed / Closed Section of Park Road

Winter – Section of unplowed Park Road

Access to the unplowed section of the Park Road during the winter season could continue by non-motorized means only. Walking, snowshoeing, skiing, and mushing may all be accommodated simultaneously on the unplowed road.

Snowmobile use in the Old Park (including the Park Road corridor) was prohibited by federal regulation in 2000. Other over-snow vehicles present a variety of issues (required grooming, compaction of snow damaging the road surface, soundscape and wildlife impacts, damage caused to bare sections of road) and their use is not supported by the park.

Shoulder Seasons – Section of Park Road closed to public vehicle traffic (typically west of Teklanika rest area)

Visitors could continue to access the closed section of the Park Road by non-motorized means in the shoulder seasons.

Because visitors on the closed section of the Park Road could be pedestrians or cyclists, administrative vehicle traffic here has the potential to negatively impact the visitor experience. To help preserve safety and the desired visitor experience, the NPS may discourage or limit administrative traffic at times when visitor use is high (e.g., during the middle of the day, weekends). The NPS could also reinforce to all administrative users of the closed section of Park Road that vehicle traffic can negatively impact the visitor experience, and that vehicle use should be minimized and conducted in a minimally-impactful way (e.g., no-dust speeds, be cognizant of splashing mud, give plenty of space to pedestrians and cyclists, etc.).

Mountain Vista / Teklanika Areas

Winter – Mountain Vista

Access to Mountain Vista is via the plowed section of Park Road. Please see discussions of access related to the plowed section of Park Road (p. 28) and Mountain Vista trails (p. 40).

Shoulder Seasons – Teklanika

Access to Teklanika is via the open section of Park Road. Please see the discussion of shoulder season access related to the open section of Park Road (p. 29).

Kantishna

Access to Kantishna for most visitors during the winter and shoulder seasons is via the Kantishna airstrip or non-motorized means. These primary modes of access could be maintained.

Snowmobile use in Kantishna and other new park additions areas has occurred in the past. No changes to management of this use are proposed at this time.

Snowmobile or other motorized access for private property owners in the Kantishna area is a distinct issue from the visitor use described in this plan. Needs for motorized access to private property in the Kantishna area are addressed for each property in the right of way certificate of access process and are not addressed here.

Backcountry and Wilderness Areas

Visitor access to the designated wilderness area of Denali is via non-motorized means. Landings of non-commercial fixed wing aircraft are also allowed.

The backcountry and wilderness areas include the ineligible wilderness surrounding Wonder Lake. Commercial landing of aircraft is not currently allowed on Wonder Lake (NPS, 2006). In order to maintain the desired backcountry visitor experience and resource conditions that are indistinguishable from the surrounding wilderness in this area, commercial landing of aircraft on Wonder Lake could remain prohibited, and routine administrative landing of aircraft on Wonder Lake by the NPS could be discouraged, limited, or eliminated.

Non-commercial snowmobile use in the preserve and new park additions areas has occurred in the past. No changes to management of this use are proposed at this time.

Trails

Current Condition

Most of the current formal trails in Denali National Park are clustered around the entrance area, with a small number of other formally designated trails near the Savage River, Eielson Visitor Center, and Wonder Lake campground. Plans in process as of 2019 consider additional formalized trails in Kantishna and between the Nenana River and Parks Highway.

Most winter routes are currently user-maintained, and may or may not follow year-round trail surfaces. In 2017 the NPS began grooming several miles of entrance area trails, though other trails in the park are unmaintained in the winter and shoulder seasons. Skier and musher trails at Mountain Vista were distinguished with colored wands in 2018 to help safely separate user groups. The park kennels operation breaks trail throughout the park during their patrols, but these historic routes are not marked or formally maintained. Access into the park for the park kennels and other mushers is facilitated by the Spring Trail and Aufeis Trail, which are winter-only trails and not widely advertised as public recreational opportunities because of concerns with user conflict.

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

The entrance area provides the largest concentration of trails and the greatest extent of winter route maintenance in the park. The park could continue grooming trails in the entrance area to the same extent as at present (Figure 10). The park could also groom additional established trails and developed areas near the park entrance that are capable of safely supporting use by skiers (e.g., Bus Depot parking area, Bike Path). Grooming of areas beyond previously-established, year-round trail surfaces and paved areas is not considered in this plan.

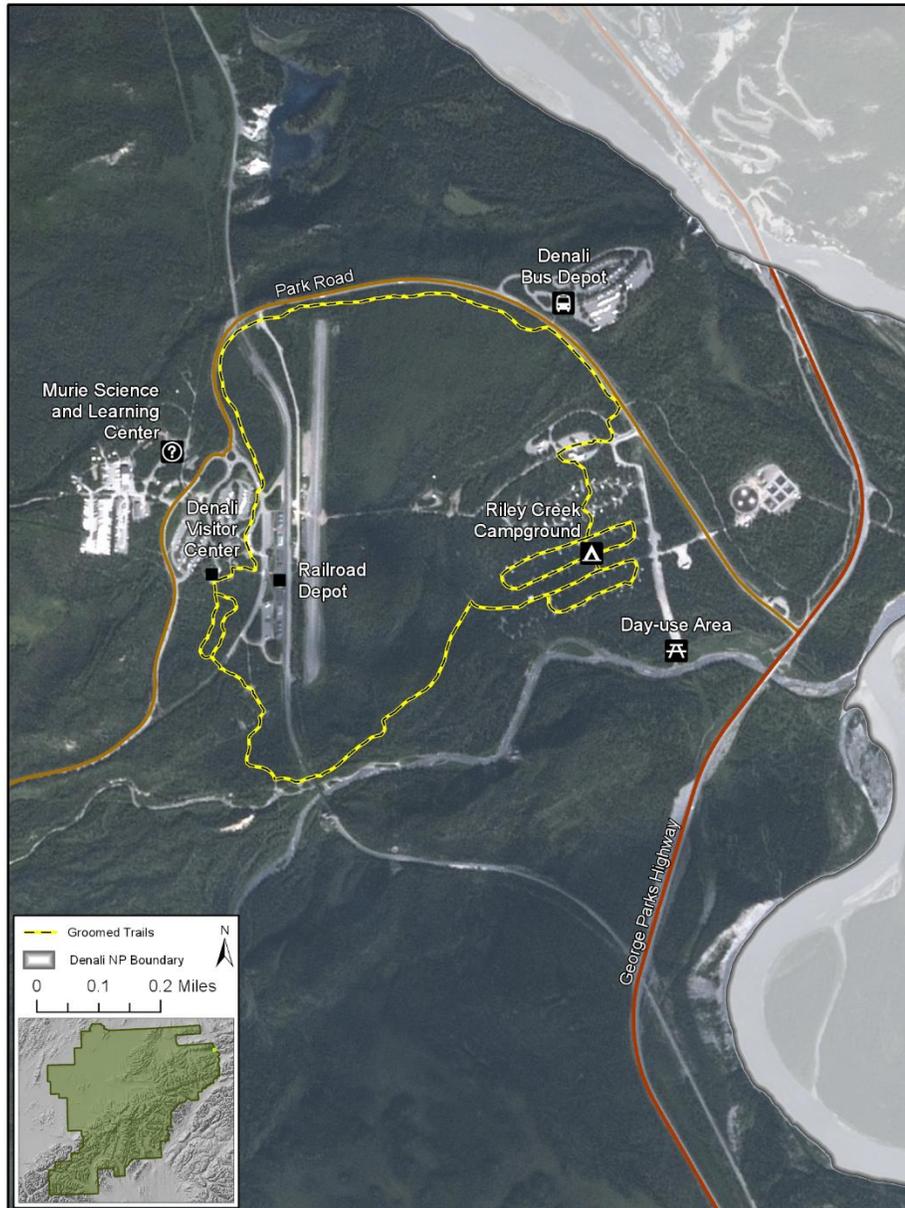


Figure 10. Trails in the entrance area available for grooming with a snowmobile

Walkways in the entrance area necessary for visitor flow could be cleared of snow in ways that are minimally impactful to groomed ski routes, leaving groomed routes as undisturbed as possible.

If trails between the Nenana River and Parks Highway proposed in other plans are constructed, portions of them could be constructed to standards that support winter use. The park could decide to groom the trails in this area that are accessible to winter use.

If the Park Road is not plowed west of Headquarters until spring road opening, the Aufeis Trail could be maintained and advertised to support winter-only use by the public (Figure 11). Trail maintenance could include brushing the trail to support multiple winter user groups, but not the establishment of a year-round trail. If the Park Road is plowed west of Headquarters before spring road opening, access to the Aufeis Trail is cut off, and this winter trail could remain in its current condition and unadvertised as a public recreation opportunity.

The Spring Trail could be re-routed and maintained to continue providing an access route for mushers (Figure 11). The area traversed by the Spring Trail has persistent and at times severe issues with aufeis, creating hazardous conditions. These issues, in combination with its frequent use by the park kennels, indicate that the Spring Trail is not suited for general public recreational use and should be maintained to provide access primarily for mushers.

Figure 11 displays a possible re-route of the Spring Trail that could accomplish the intent of the 2002 Spring Trail EA and provide safer and more reliable park access for mushers. Any newly-constructed segments of trail would not be intended for year-round use, and construction would be accomplished primarily by brushing and tree removal, with tread work and ground disturbance only where required to provide a safe route. Work on the Spring Trail could also include brushing of the existing Spring Trail route west to the Mountain Vista area to facilitate musher access as brush increases in formerly open areas. Maintaining the Spring Trail as musher access would be particularly important if the Park Road is plowed west of Headquarters before spring road opening and the unplowed surface of the road is no longer available as a mushing route.

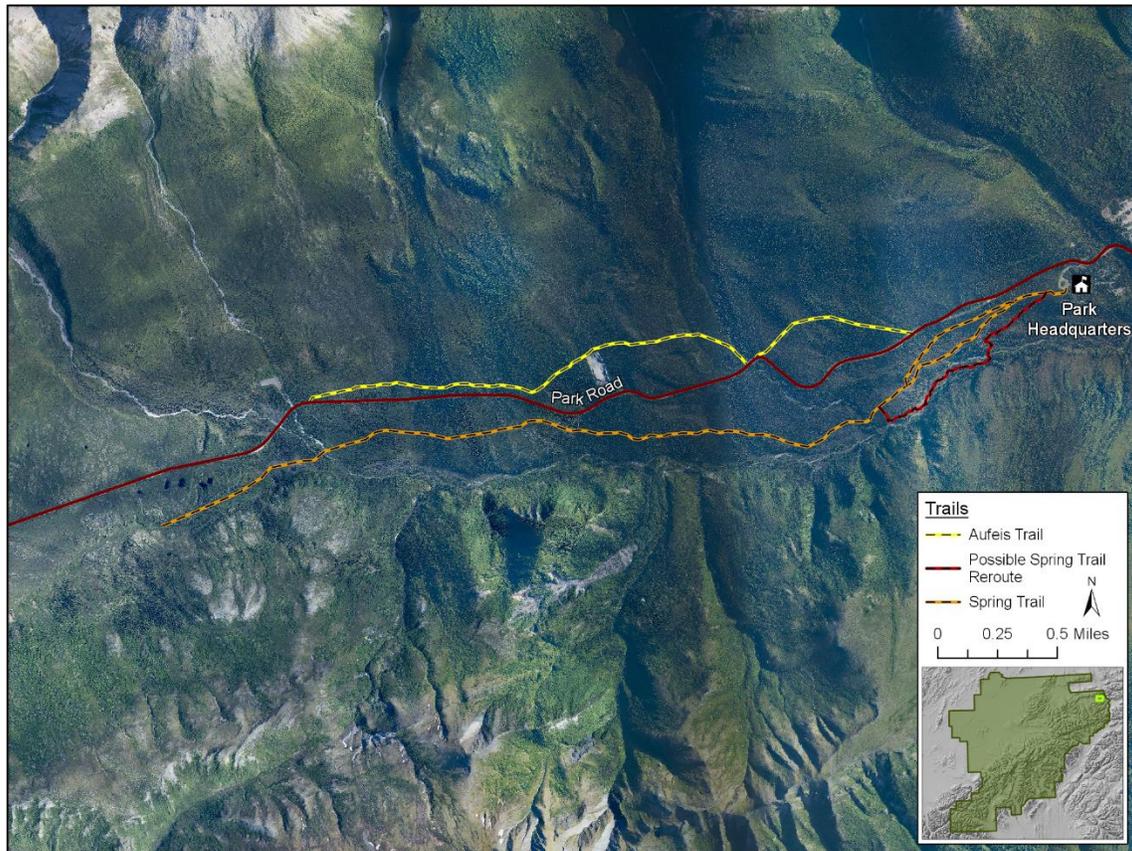


Figure 11. Winter trails near Headquarters, including the Aufeis Trail, the current Spring Trail, and a possible reroute to the Spring Trail

Plowed Section of Park Road

Since the winter road plowing trial period began in 2014, the piles of snow plowed up on the shoulders of the road have been bladed down to prevent tall berms from forming. This has resulted in the road shoulders informally providing a flat, snow-covered surface usable by recreationists skiing and snowshoeing. The provision of this informal and opportunistic “trail” as a result of winter road plowing could be continued, if winter road plowing west of Headquarters is continued.

Unplowed Section of Park Road

During periods of the winter when the Park Road is not plowed west of Headquarters, Park Road maintenance staff monitor the buildup of aufeis on the road surface between Headquarters and approximately mile seven of the Park Road. To accomplish this, maintenance staff drive on one lane of the Park Road, leaving the other lane covered with undisturbed snow for winter recreationists. Since 2015, road maintenance staff has used equipment that leaves one lane of the Park Road groomed and the other lane covered in undisturbed snow.

This opportunistic grooming of the unplowed Park Road between Headquarters and approximately mile seven of the Park Road as a result of road maintenance operations could be continued.

Additional or more formalized grooming of the unplowed Park Road surface is not considered in this plan. Snowmobile use in the Old Park (including the Park Road corridor) was prohibited by federal regulation in 2000, and the park is not considering administrative use of snowmobiles for grooming the Park Road.

Use of other equipment for formal grooming of the Park Road is not considered in this plan in part because heavy compaction of snow on the road, especially on the gravel section, has the potential to create ice and damage the road surface or delay the spring opening of the road. The road is also often not an optimal winter travel corridor, as evidenced by traditional winter travel routes that do not follow the length of the road and the existence of stretches of road that are frequently blown clear of snow, drifted over, covered in auffs, or otherwise not suited for travel. Furthermore, the wilderness character of park areas surrounding the road is uniquely intact in winter months, and extensive use of mechanized equipment along the Park Road corridor would degrade this park resource.

Informal grooming of the unplowed Park Road between Headquarters and approximately mile seven of the Park Road as a result of road maintenance operations provides a recreational opportunity in a manner that is feasible, fiscally sustainable, and minimally impactful to park resources.

Mountain Vista Area

If the road is not plowed west of Headquarters in winter months, no winter routes would be established or maintained at Mountain Vista.

If the road is plowed west of Headquarters during the winter, existing winter routes in the Mountain Vista area could be maintained to a lesser degree than trails in the entrance area and trails in the Nenana River / milepost 231 area. Trails in the Mountain Vista area could be user-maintained rather than formally groomed. Temporary wands or similar minimal markers could continue to be used to safely separate routes for mushers and routes for other user groups.

A winter-only trail could be established to provide access for mushers from the Mountain Vista area after spring road opening operations remove snow from the road west of Mountain Vista (Figure 12).

Currently, mushers park at the gate near Mountain Vista and use the road surface for a short distance before turning south to rejoin traditional winter mushing routes. After spring road opening begins, the road surface is no longer available to mushers. A short trail from the gate through the brush adjacent to the road would provide safe access to mushers throughout the season. Construction of this trail could include brushing and tree removal with limited to no ground disturbance for winter-only use.

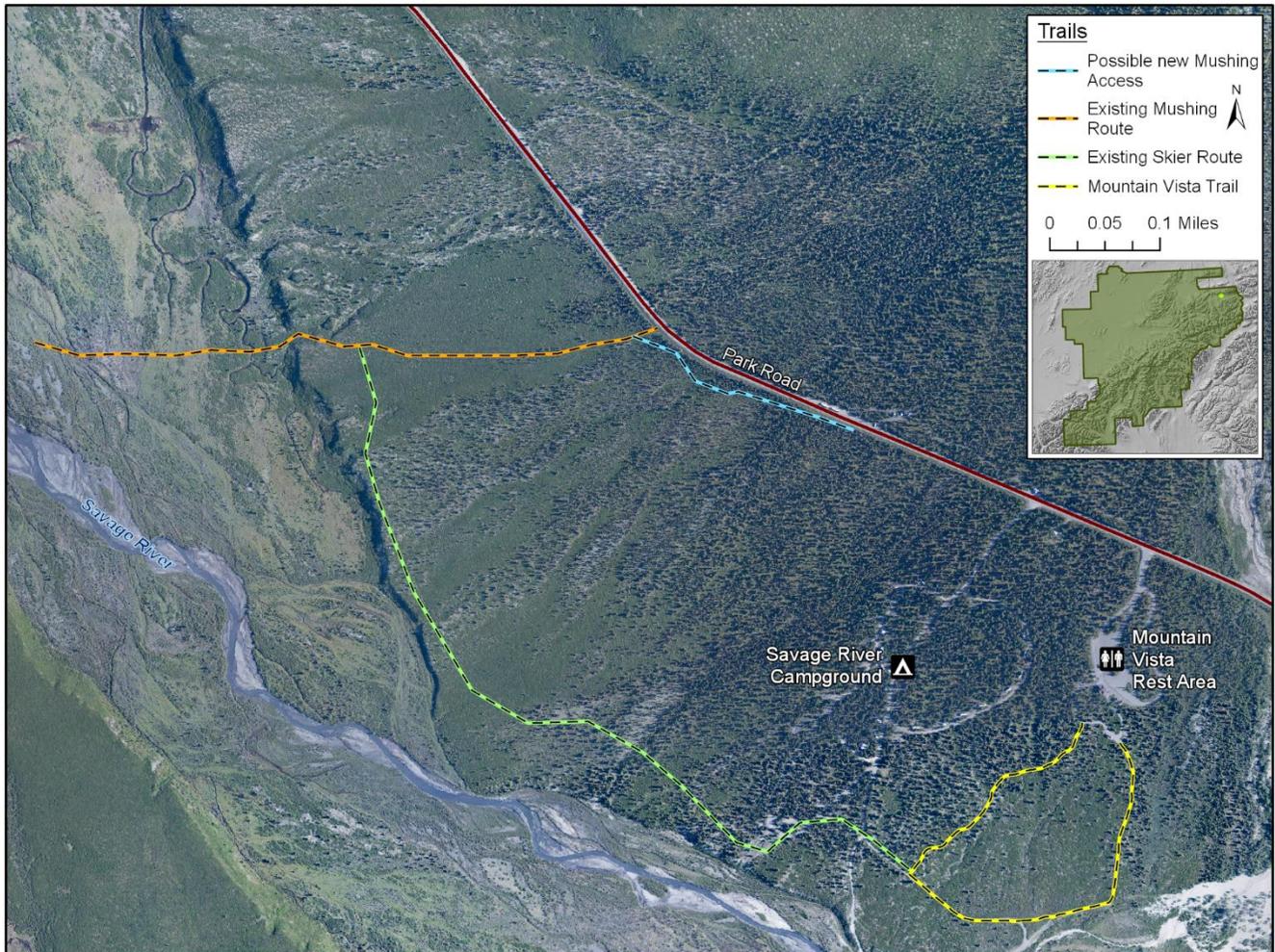


Figure 12. Winter trails near the Mountain Vista rest area

Kantishna

The *Winter and Shoulder Season Plan* does not consider the establishment or maintenance of any winter routes in the Kantishna area.

Backcountry and Wilderness Areas

Wilderness routes are used by the park kennels throughout park backcountry and wilderness areas, although these routes are not formally maintained or marked. Information about these non-motorized routes could continue to be shared with the public, including the location of traditional routes and any known route conditions. In order to maintain the desired self-reliant visitor experience and minimize installations in the park, the *Winter and Shoulder Season Plan* does not consider any formal maintenance, marking, or signage for winter routes in backcountry and wilderness areas of the park.

Facilities

Current Condition

Winter and shoulder season visitor facilities are concentrated in the entrance area and consist primarily of the Murie Science and Learning Center (MSLC), which acts as the visitor center during these seasons. Beginning in 2017, the Murie Dining Hall, a nearby building, was opened to provide additional heated visitor space. One loop of the Riley Creek campground is plowed to allow winter camping with vault toilets and no running water. No other park campgrounds are open during the majority of the winter or shoulder seasons.

When the road is plowed west of Headquarters in the winter, the Mountain Vista rest area provides vault toilets and picnic shelters, as does the Teklanika rest area in the shoulder seasons. The vault toilets in the Sanctuary and Igloo campgrounds tend to remain unlocked, while restrooms in other areas along the Park Road remain locked during the winter and shoulder seasons.

In 2015, four quinzee shelters were constructed and are currently accessible only to clients of the dogsled concessioner. These quinzee shelters are small (12'x14') wooden structures heated with wood stoves that provide bunk space for four people. The current four quinzees available only to clients of the dogsled concessioner are located near the Sanctuary campground, the Igloo campground, the Toklat rest area, and mile 70 of the Park Road (the "Thorofare pit"). These quinzees are placed each fall and removed each spring via trailer to serve other park administrative needs. There are no shelters or structures open to the general public for overnight stays in the park.

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

The MSLC has functioned as the winter and shoulder season visitor center since 2005. Due largely to increasing visitation, the MSLC is not an ideal primary visitor contact facility. The leach field has recently been upgraded, but increased visitation would require more frequent pumping. The indoor space of the MSLC quickly becomes crowded when pulses of visitors arrive as is increasingly common with continued growth of tour group visitation. The 2017 opening of the nearby Murie Dining Hall as a visitor space has eased these pressures somewhat, but the Murie Dining Hall is on the same leach field system as the MSLC, and its interior does not currently accommodate typical expectations of a national park visitor center experience (e.g., available staff, information, interpretive displays, etc.).

The Denali Visitor Center (DVC) functions as the summer visitor center, but its construction does not allow for efficient operation of the building in the Alaskan winter and unpredictable weather conditions of the shoulder seasons. Without major redesign of wall construction, insulation, heating, and water systems, the DVC would have extremely high energy demands to heat and adequately illuminate its indoor spaces as well as provide heated restrooms for visitors.

The Denali Bus Depot (formerly the Wilderness Access Center) would also require extensive retrofitting to be usable as a winter visitor center, but to a lesser extent than the DVC. Its location, however, is distant from the railroad depot and from most park trails. Because it is not currently used as a visitor center and is used in the summer as a bus depot, using it as a winter visitor center would require annual installation and removal of winter visitor center exhibits.

None of these obstacles to providing an ideal winter and shoulder season visitor center are insurmountable, but they are factors that must be considered in decisions regarding changes to winter visitor center facilities.

Any new or redesigned winter and shoulder season visitor center should be located in the entrance area of the park, and should be able to provide the following experiences and services:

- Ability to accommodate up to 80 visitors at a time (several typical tour groups) without crowding negatively impacting the visitor experience and without overbuilding for visitor numbers that may never materialize
- Heated restroom facilities available 24 hours a day adequate to serve pulses of up to 80 visitors at one time
- Ability for major building systems (heat, electricity, water) to function in all seasons
- Exhibits to inspire, educate, and inform visitors
- Adequate staff areas and offices
- Ease of access to the visitor center by vehicles, pedestrians, and rail passengers, and accessibility of the visitor center to park entrance area trail systems

The following table lists some considerations for possible winter and shoulder season visitor center options and roughly estimated costs, if known². Cost estimates are only for building construction or upgrade work, and do not include the annual cost of building operation. Options including use of the MSLC or Murie Dining Hall assume use of both buildings.

² Estimated Costs for improved winter visitor center facilities were developed in November 2018 by architects and project engineers in the Alaska Regional Office of the NPS. Additional estimated cost information was provided in July 2019 by Denali buildings and utilities and interpretive staff.

Table 7. Considerations for possible winter and shoulder season visitor center options

	Needs and Implications	Pros	Cons	Estimated Cost
Retain existing MSLC	<ul style="list-style-type: none"> Increased leach field pumping 	<ul style="list-style-type: none"> Low cost Low impact to park resources 	<ul style="list-style-type: none"> Crowding 	\$20,000
Provide exhibits and/or improved visitor experience in Murie Dining Hall	<ul style="list-style-type: none"> Increased leach field pumping Twice annual switch of building use 	<ul style="list-style-type: none"> Uses existing park infrastructure intended for year-round use 	<ul style="list-style-type: none"> Major NPS use of concessioner-assigned building Might not accommodate greatly increased visitation 	\$75,000
Expand MSLC (e.g., additional space, separate bathroom facility)	<ul style="list-style-type: none"> Increased leach field pumping 	<ul style="list-style-type: none"> Could benefit summer uses of the MSLC 	<ul style="list-style-type: none"> Increased park infrastructure footprint 	\$2.8 million
Retrofit Denali Bus Depot for winter use	<ul style="list-style-type: none"> Building systems upgrades Twice annual switch of building use 	<ul style="list-style-type: none"> Ample space for visitors Uses existing park infrastructure 	<ul style="list-style-type: none"> Major NPS use of concessioner-assigned building Distant from rail depot, trails 	\$3.5 million
Retrofit Denali Visitor Center for winter use	<ul style="list-style-type: none"> Extensive building systems upgrades 	<ul style="list-style-type: none"> Uses existing park infrastructure Easy access to trails Easy navigation 	<ul style="list-style-type: none"> Costly Building not intended for year-round use 	\$5.9 million
Construct new building	<ul style="list-style-type: none"> Need to identify suitable entrance area location 	<ul style="list-style-type: none"> Ability to design to exact specifications and needs 	<ul style="list-style-type: none"> Increased park infrastructure footprint 	\$5 million
Open DVC or just DVC restroom facilities longer into shoulder seasons	<ul style="list-style-type: none"> Water, sewer systems need to be operational sooner in spring, later in fall 	<ul style="list-style-type: none"> Relieves crowding pressure during busy times of year Could work in conjunction with other visitor center options 	<ul style="list-style-type: none"> Does not address increased winter visitation 	\$40,000

Final decisions regarding a winter visitor center facility will require site-specific assessments, formal cost estimates, and further discussions about the role of any winter visitor center facility in year-round park operations (see Next Steps, p. 70). Until more final decisions are made about a winter and shoulder season visitor center facility, the park could continue to use the MSLC in conjunction with the Murie Dining Hall. The park could also consider attempting to open the DVC earlier in the spring and later into the fall to relieve crowding and provide an improved visitor experience during some of the busier times of the shoulder seasons. Decisions about visitor facilities should be linked to decisions about access and commercial services so that changes to the timing, nature, and amount of visitation are accommodated in adequately sized facilities.

Plowed / Open Section of Park Road

Winter – Section of Park Road plowed west of park Headquarters

No new facilities along the plowed section of road are considered in the *Winter and Shoulder Season Plan*.

Shoulder Seasons – Section of Park Road open to public traffic

To facilitate visitor use of the park during the shoulder seasons, the park could ensure that all vault toilet facilities along the open section of road are available for use. This could include, for example, toilet facilities at the Primrose rest area and the Sanctuary campground.

Visitor enjoyment of the park could also be enhanced by access to the drive-in campgrounds of Savage River and Teklanika during portions of the shoulder seasons. These concessioner-operated campgrounds are currently only available for summer use, and are only open when the full complement of summer services and rules are in place. The concessioner could open these campgrounds earlier in the spring (perhaps May 1) and operate them later into the fall season (perhaps September 30).

It is unlikely that water and septic systems could reliably be provided at these times of year. The campgrounds could be opened for a reduced fee for primitive camping, with vault toilets only and no running water available. To avoid the necessity of staffing a reservation center, campground reservations could be available only by phone or online. The reduced fee for camping could go toward supporting a campground host who could check reservations and perform other typical campground host duties.

Unplowed / Closed Section of Park Road

Winter – Section of unplowed Park Road

The 2006 BCMP articulates a vision of park management without public use shelters, and the park has never made shelters widely available to members of the general public. Four shelters currently exist (in the vicinity of the Sanctuary campground, Igloo campground, Toklat rest area, and mile 70 of the Park Road), but access is restricted to clients of the park's dogsled concessioner. Public use shelters could improve the quality of the winter visitor experience, encourage Alaskans in particular to connect with the park, and facilitate non-motorized recreation that is consistent with park values. The intent of establishing public use shelters in Denali would be to provide a winter recreation opportunity. Year-round or shoulder season access to public use shelters is not considered in this plan.

Establishing public use shelters available to the general public would represent a substantial change in park management, operations, and visitor opportunities, and if the park were to pursue this idea, such changes should be implemented cautiously. If the park were to explore the possibility of public use shelters, the beginning stages of a public use shelter system in the park could include the following elements.

Preliminary Public Use Shelter Implementation

- *Establishing a trial period for a limited number of public use shelters before committing to public use shelters as an established visitor opportunity.* Such a trial period could last for 3-5 years. This would allow the NPS to assess the resource impacts, operational needs, feasibility, and visitor use patterns of public shelters before fully committing to offering this experience. During this trial period, the NPS could

manage and maintain any public use shelters and assess whether the NPS should continue operating them if shelters are established beyond the trial period, or if management of public use shelters could be a commercial opportunity.

- *Co-locating a few (2-3) temporary structures on the unplowed section of Park Road corridor in areas with established vault toilet facilities.* Possible locations include the Primrose rest area, the Sanctuary campground area, and the Igloo campground area. These locations allow for relatively easier access for the NPS to monitor visitor use, maintain the structures, respond in the event of an emergency, and insert and remove the structures for the winter season.

- *Options for temporary public use shelter structures*

- **Option 1.** Temporary structures could include hard-sided quinzees (similar to those already in use by the dogsled concessioner), yurts, or winter tents capable of being heated by a stove.
- **Option 2.** The NPS could also consider allowing general public access to some or all of the four existing quinzee shelters currently available exclusively to clients of the dogsled concession. These four existing shelters are placed each winter near the Sanctuary campground, the Igloo campground, the Toklat rest area, and approximately at mile 70 of the Park Road (the “Thorofare pit”). Of these four locations, the Sanctuary and Igloo campgrounds would be most easily maintained, managed, and patrolled by the NPS during a trial period.

To protect park resources and ensure a quality visitor experience of public use shelters during a trial period or as an established visitor use, the park could manage a public use shelter system within the following guidelines.

Guidelines for Management of a Public Use Shelter Trial Period or Established System

- *Public use shelters placed on the road corridor only.* According to ANILCA 1315(d), public use shelters may only be established in designated wilderness if they are necessary for public health and safety. Given the lack of publicly available shelters in Denali for over 100 years, it would be difficult to assert that establishing public use shelters in the designated wilderness of Denali is necessary for health and safety. Additionally, the *2006 NPS Management Policies* specify that areas eligible for wilderness designation be managed as wilderness, including the general prohibition on the construction of new structures. Public use shelters placed on the road corridor would be outside of wilderness, and could be more easily inserted and removed each year. Public use shelters on the road corridor could be co-located with existing restroom and patrol facilities.

- *A maximum number of public use shelters limited to developed roadside locations west of the Savage River with vault toilet facilities.* Established toilets are necessary in conjunction with any public use shelters to protect park resources and limit the amount of development needed to support shelter use. There are approximately 10 such locations on the Park Road (Primrose rest area, Sanctuary campground, Teklanika campground, Teklanika rest area, Igloo campground, Upper East Fork patrol cabin, Toklat rest area, Wonder Lake campground, Moose Creek bridge vault toilet, Kantishna airstrip). Not all of these locations would be suitable for a public use shelter and would have to be evaluated individually if the park pursued public use shelters in the long term.

- *Public use shelters available for a set date range (e.g., November 15 – March 31) during the winter (generally snow-covered) season only.* Year-round or shoulder season access to public use shelters is not considered in this plan for a variety of reasons. The primary reason is that the goal of a system of public use shelters is to encourage non-motorized winter recreation in a way that is compatible with wilderness values. Shelters available on the road corridor during non-winter conditions would be much easier to reach, and would not facilitate wilderness recreation. Public use shelters visible from the Park Road in summer would also have an adverse impact to the cultural landscape of the Park Road. Additionally, public use shelters have the potential to concentrate visitor use, and resources are more susceptible to impacts from concentrated use (e.g., informal trail creation) during periods of time without snow cover.

Use of NPS patrol cabins as public use shelters in Denali is not considered in this plan. These cabins do not have a history of general public use, and administrative needs of these cabins (park patrol, emergency response, and maintenance activities) would likely increase with the establishment of any public use shelters. Temporary structures, such as quinzees, yurts, or winterized tents, could be used as public use shelters without conflicting with administrative needs of patrol cabins, and without changing the historic use or character of the patrol cabins.

Shoulder Seasons – Section of Park Road closed to public vehicle traffic (typically west of Teklanika rest area)

Facilities on the closed section of the Park Road during the shoulder seasons consist of dormant campgrounds at Igloo and Wonder Lake and vault restrooms at rest areas such as Toklat. To facilitate pedestrian and cyclist visitor use of the closed section of the Park Road, these facilities could be made available during the shoulder seasons. This opportunity could be provided by a change in park rules and operations without advertising it or intentionally attracting visitors to these uses.

The park cannot currently handle reservations for these campgrounds or consistently provide janitorial services during the shoulder seasons. In spite of these limitations, making these facilities available to shoulder season visitors could provide camping and restroom opportunities that improve the visitor experience and protect resources by shifting camping and human waste disposal from natural areas next to the road to developed facilities. Because reservations for these campgrounds are not available during the shoulder seasons, camping could be allowed on a walk-in, first-come-first-served basis.

Camping in unopened campgrounds during the shoulder seasons is currently only allowed after September 30 and before April 15. Revising the regulations in the Superintendent's Compendium governing this use could allow for camping in these campgrounds during the entirety of the shoulder seasons.

Available camping in the dormant Igloo and Wonder Lake campgrounds could be supplemented by allowing camping in any undeveloped pullout off of the road corridor that is sufficiently removed from vehicle traffic to permit safe camping. There are many such pullouts along the road, and allowing camping in these areas during the shoulder seasons would concentrate impacts on durable gravel surfaces, rather than fragile roadside tundra areas. The Toklat rest area parking lot and the Eielson Visitor Center developed area each have a great deal of maintenance and vehicle activity during the shoulder seasons, making them unsafe for shoulder season camping.

The camping and restroom opportunities described here could be offered on an unadvertised trial basis to gauge use levels and operational needs. If crowding in dormant campgrounds or resource impacts from human waste in roadside pullouts become issues, the park could decide to eliminate these opportunities, make the campgrounds available by reservation only, or provide temporary restroom facilities at selected roadside locations.

Mountain Vista / Teklanika Areas

Winter – Mountain Vista

The picnic shelters and restrooms at Mountain Vista could continue to be maintained for winter use if the park decides to continue road plowing west of Headquarters, but the *Winter and Shoulder Season Plan* does not consider additional new facilities in this area. If desired, picnic shelters at Mountain Vista could have temporary hard sides installed on one or more sides to help block wind and provide day-use-only protection from the elements.

The Upper Savage River cabin is not currently open to visitors in the winter. If staffing levels allow, the park could consider staffing this cabin as an educational, interpretive, and visitor contact station when and if the road is plowed west of Headquarters in the winter.

Shoulder Seasons – Teklanika

Temporary parking lines could be applied to the Teklanika rest area during the shoulder seasons to maximize efficient parking and reduce crowding.

Temporary signs along the road in the Teklanika area could indicate where and how to park along the road safely if parking spaces are not available in the rest area parking lot and overflow parking is necessary.

If temporary parking lines and signs indicating how and where to park along the road near the Teklanika rest area do not create enough parking space to satisfy demand, some areas of the Teklanika campground could be designated as overflow parking. This may work well for cyclists who could more easily travel the mile to the gate at the Teklanika rest area, but might not be a satisfactory solution for pedestrians and hikers. If parking lines and parking signs at the Teklanika rest area in addition to overflow parking space at the Teklanika campground fail to satisfy demand for parking, the park may need to manage private vehicle access to Teklanika during the shoulder season differently (see shoulder season access discussion, p. 29).

Visitor enjoyment of the park could be enhanced by access to the Teklanika campground during portions of the shoulder seasons. This concessioner-operated campground is currently only open and available for summer use when the full complement of summer services and rules are in place. The concessioner could open this campground earlier in the spring (perhaps May 1) and operate it later into the fall season (perhaps September 30).

It is unlikely that water and septic systems could reliably be provided in the Teklanika campground at these times of year. The campground could be opened for a reduced fee for primitive camping, with vault toilets and no running water available. To avoid the necessity of staffing a reservation center, campground

reservations could be available only by phone or online. The reduced fee for camping could go toward supporting a campground host who could check reservations and perform other typical campground host duties.

An “iron ranger” fee collection post could be installed at the Teklanika rest area to increase the collection of recreation fees during the shoulder seasons, especially from visitors who drive out to Teklanika but do not stop at the visitor center where fees are collected. Similarly, a sign at the Teklanika rest area could inform visitors of the park entrance fee, and request that they pay the fee at the visitor center when they leave the park.

Kantishna

No new NPS facilities in the Kantishna area are considered in the *Winter and Shoulder Season Plan*. Any facilities in this area discussed in the 2019 *Kantishna and Wonder Lake Area Plan* would be capable of winter and shoulder season use.

Backcountry and Wilderness Areas

No new facilities in the backcountry and wilderness areas of the park are considered in the *Winter and Shoulder Season Plan*, including route markings, camping facilities, and public use shelters.

Commercial Opportunities

Current Condition

Commercial activity in the park during the winter and shoulder seasons currently takes place in both frontcountry and backcountry areas of the park and is guided in part by the 2017 Commercial Services Strategy. Winter-specific commercial use authorizations were issued starting in 2017, and allow for guided snowshoeing, hiking, and tours on the Park Road to Mountain Vista from February 15 to May 10. During the shoulder seasons, tours operated by the transportation concessioner operate on the Park Road during several weeks before and after the summer season. Many commercial service operators providing a variety of visitor services (e.g., guided hiking, backpacking) are authorized to operate during the shoulder seasons, but generally do not. Air taxis operate out of the Kantishna airstrip during the winter and shoulder seasons.

Commercial activity in wilderness areas of the park must be approved via an Extent Necessary Determination, as required by the Wilderness Act. Current commercial activity in backcountry and wilderness areas of the park during non-summer months primarily consists of one dogsled concessioner who also provides dogsled-supported ski trips.

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

The entrance area of the park acts as a hub for commercial activity in the park during summer months, and it could remain the hub of commercial activity during the winter and shoulder seasons. Of any area in

the park, the widest variety of commercial services could be provided in the entrance area –Headquarters and Nenana River trails areas of the park. Guided snowshoeing, guided skiing, gear rentals, photography instruction, food service, and other commercial services could all take place here.

Food service in the entrance area of the park during the winter and shoulder seasons is an identified visitor need (NPS, 2019a), and this could be a new commercial services opportunity for the winter and shoulder seasons. Entrance area food service could be provided in a variety of ways, including:

- The Murie Dining Hall is currently assigned to the transportation concessioner, and functions as an employee cafeteria during the summer. In the Murie Dining Hall, the concessioner could provide vending machines, or could use the kitchen facilities to provide more substantive food. This could begin as a trial with food provided only during times of high visitation. If demand is sufficient, this trial could be expanded to include longer periods of the winter and shoulder seasons.
- A food truck or similar portable food outlet could operate at the railroad depot or on the railroad right of way. This non-NPS property could more easily allow for commercial operations such as food service.
- Extensive retrofitting of existing entrance area facilities and utility systems could enable the Morino Grill on the DVC campus in the entrance area to operate in all seasons.

Plowed / Open Section of Park Road

Winter – Section of Park Road plowed west of park Headquarters

Tours operated by commercial providers could continue as at present on the section of Park Road plowed west of Headquarters. If resource impacts, safety issues, or crowding or limited parking at Mountain Vista become problems, the NPS could manage this commercial use differently. This could include limiting the number of commercial trips allowed per day or per hour, limiting the number of trips allowed per operator, putting restrictions on commercial vehicle size, or specifying specific times when tours are allowed to operate.

Shoulder Seasons – Section of Park Road open to public traffic

The only current commercial operation during the shoulder season on the open section of road is bus tours provided by the park transportation concessioner. The park could also consider offering other commercial operators the ability to provide tours and shuttle service in a variety of configurations discussed in the section of the plan related to access along the open section of Park Road (p. 29).

To achieve the desired conditions outlined in this plan, any commercial services provided on the open section of Park Road during the spring and fall should emphasize independent exploration and not impact the uncrowded, unstructured, and open feeling associated with the visitor experience of these seasons.

Unplowed / Closed Section of Park Road

Winter – Section of unplowed Park Road

The unplowed section of the Park Road is not a wilderness area, but it offers many of the aspects of a wilderness experience during winter months. Portions of the unplowed road could be an ideal location for

guided non-motorized winter recreation including skiing, snowshoeing, and mushing. Its relatively large width and gentle grades could facilitate instructional or beginner experiences as well.

If the park establishes public use shelters along the unplowed section of the Park Road after a successful trial period, commercial access to the shelters for guided overnight trips could be considered. A commercial operator could also manage public use shelters in the park (reservations, stocking, maintenance), if a trial period of public shelters is deemed successful.

Shoulder Seasons – Section of Park Road closed to public vehicle traffic (typically west of Teklanika rest area)

Commercial operators could facilitate the visitor experience of the closed section of the Park Road by offering guided cycling day trips on the Park Road. Although the park may consider allowing overnight camping in roadside closed campgrounds and pullouts (see Facilities, p. 42), these areas could quickly become crowded and overwhelmed by consistent overnight use by larger groups, and commercial access to these opportunities may be prohibited. Commercial use of these areas would also work against the unadvertised nature of possible overnight use of dormant campgrounds and roadside pullouts along the closed section of road.

Mountain Vista / Teklanika Areas

Winter – Mountain Vista

The Mountain Vista area could allow for guided non-motorized winter recreation. Although this area is a visitor node in winter months, other commercial services, such as gear rental and food service, are more appropriate in the entrance area of the park in order to achieve the desired conditions of the *Winter and Shoulder Season Plan*.

Shoulder Seasons – Teklanika

The Teklanika area could serve as a starting and ending point and parking area for guided commercial services on the Park Road such as vehicle tours and cycling, but the area would not be a hub for commercial activity in and of itself. In order to achieve the desired conditions of the *Winter and Shoulder Season Plan*, commercial services such as gear rental and food service are more appropriate in the entrance area of the park.

Kantishna

Winter

Guided non-motorized recreation could take place in the Kantishna area, especially within ineligible wilderness areas. Commercial non-motorized recreation in eligible and designated wilderness areas is subject to an Extent Necessary Determination.

Snowmobile use has occurred in the Kantishna area in the past. No changes to management of this use are proposed at this time.

Snowmobile or other motorized access for property owners to private property in the Kantishna area is a distinct issue from the visitor use described in this plan. Needs for motorized access to private property in

the Kantishna area are addressed for each property in the right of way certificate of access process and are not addressed here.

The Kantishna airstrip could continue to be an access point for air taxi operators in all seasons.

Shoulder Seasons

Guided hiking is popular in the Kantishna area in summer months, and this commercial opportunity could be offered in shoulder seasons as well. Other commercial activities available in this area during other times of the year could potentially take place during the shoulder seasons. Commercial non-motorized recreation in eligible and designated wilderness areas is subject to an Extent Necessary Determination.

Backcountry and Wilderness Areas

Winter

The backcountry and wilderness areas of the park could allow for guided non-motorized winter recreation. Commercial non-motorized recreation in eligible and designated wilderness areas is subject to an Extent Necessary Determination.

As mentioned in the discussion of access to the backcountry and wilderness areas of Denali (p. 36), commercial landings of aircraft are not allowed in the Old Park, including the Wonder Lake area. In order to maintain the desired backcountry visitor experience and resource conditions that are indistinguishable from the surrounding wilderness in this area, commercial landing of aircraft on Wonder Lake could remain prohibited.

Shoulder Seasons

There is currently little commercial activity during the shoulder seasons in the backcountry and wilderness areas of the park covered by the *Winter and Shoulder Season Plan*. This plan does not consider any additional commercial opportunities specific to the shoulder seasons in the backcountry and wilderness areas of the park. Any commercial non-motorized recreation in eligible and designated wilderness areas is subject to an Extent Necessary Determination.

Visitor Experience

Current Condition

This section describes other actions that the park could take that are not previously covered but would affect the visitor experience. Refer to p. 16-25 for the desired visitor experience conditions for each functional area.

The winter and shoulder seasons have typically been the “off season” in Denali, a time when visitation is lower and visitor services and facilities are not as available as during the summer. Current winter visitors can visit the winter visitor center at the MSLC, explore groomed and user-maintained trails in the

entrance area, and have the opportunity to drive to Mountain Vista beginning in mid-February. The entire park is available for camping, mushing, skiing, and snowshoeing. One loop of the Riley Creek campground is plowed to allow for winter camping in the entrance area. The park kennels is a frequent visitor destination, though its accessibility to visitors has fluctuated over time based on staffing levels and the need to maintain sled dog health and well-being.

During the shoulder seasons, many visitors come to the park in order to drive their private vehicles to the Teklanika rest area. Hiking and biking the Park Road west of the Teklanika rest area are popular activities for many visitors.

Entrance Area – Headquarters, Milepost 231 and Nenana River Trails

When the road is closed at Headquarters during winter months, there is currently a gate with a stop sign, a “winter trailhead” sign, and very little else. This somewhat imposing configuration may give the impression that the park west of Headquarters is closed, or dissuade visitors from exploring the park further. The addition of a more welcoming sign or a temporary informational kiosk in the vicinity of the gate could more effectively invite visitors to experience the park.

In 2018 the Alaska Railroad enclosed one of their shelters at the railroad depot to provide increased comfort and protection from the elements to winter visitors using the rail system. The NPS could partner with the Alaska Railroad to provide improved interpretive media in this shelter that focuses on winter in the park.

The park kennels is a popular visitor attraction year-round. In the winter, many visitors expect to see and interact with the park dogs, as dogsled rides and kennel tours are popular winter tourist attractions in Alaska (Alaska Department of Commerce, 2018). However, the winter season is when the park dogs are often not in the kennels but out in the park, patrolling, completing projects, and interacting with recreationists. This work in the park is an essential component of the kennels operation, and the fact that the park uses dog teams to accomplish work using traditional skills that are compatible with wilderness values is part of what makes the Denali National Park kennels unique. Park messaging about the kennels emphasizes this traditional work function of the kennels during winter months, rather than the opportunity to interact with the park dogs. Direct interactions with sled dogs during winter months is a visitor experience best provided at commercial kennels operations outside of the park. This consistent messaging focus from all NPS staff and materials could help forestall unmet visitor expectations as well as connect visitors to the history, tradition, and wilderness values of the park.

Plowed / Open Section of Park Road

Winter – Section of Park Road plowed west of park Headquarters

Driver safety is paramount on the section of road plowed west of Headquarters in winter months. This section of road is only open to the public when the park determines that safe driving conditions are present, but even at these times there is no easily available communication in the area (i.e., no cell phone service) and some drivers are unprepared for and unfamiliar with typical winter driving conditions. In addition to allowing vehicle access only when road conditions are deemed safe, the park could also increase safety messaging regarding winter driving in the park. This could include written information on

the park website, a recorded safety briefing available online and at the visitor center, or information distributed to car rental agencies, tourism boards, and interagency visitor centers around the state.

Shoulder Seasons – Section of Park Road open to public traffic

If staffing levels allow, the park could increase the presence of NPS personnel on the open section of road during the shoulder seasons to minimize human-wildlife interactions, provide visitor assistance when needed, and manage traffic at wildlife stops, if necessary.

Unplowed / Closed Section of Park Road

Winter – Section of unplowed park road

No additional actions affecting the visitor experience on the unplowed section of Park Road are considered in the *Winter and Shoulder Season Plan*.

Shoulder Seasons – Section of Park Road closed to public vehicle traffic (typically west of Teklanika rest area)

As stated in the access discussion (p. 29), the NPS could manage administrative traffic on the closed section of Park Road during the shoulder seasons differently in order to provide a higher-quality visitor experience for pedestrians and cyclists. Some amount of administrative traffic will remain necessary, however, and if staffing levels allow, NPS personnel on the closed section of Park Road could help mitigate human-wildlife interactions and other safety concerns or resource impacts.

Mountain Vista / Teklanika Areas

Winter – Mountain Vista

As a visitor node during winter months when the road is plowed west of headquarters, Mountain Vista could provide another visitor contact area, if staffing levels allow. The Savage cabin could be staffed, or the Mountain Vista area could be a venue for ranger-led activities.

Shoulder Seasons – Teklanika

The Teklanika area is a main destination for many shoulder season visitors, and could be more of a visitor contact area and venue for ranger-led activities, if staffing levels allow. Wildlife safety messaging through existing signs and kiosks could be increased, including information about interacting with wildlife while riding a bicycle and how to properly interact with wildlife on the road while driving.

The addition of a more welcoming sign or a temporary informational kiosk in the vicinity of the gate closing the road at Teklanika could more effectively invite visitors to experience the park and provide additional safety information.

Kantishna

No additional actions affecting the visitor experience in the Kantishna area of the park are considered in the *Winter and Shoulder Season Plan*.

Backcountry and Wilderness Areas

No additional actions affecting the visitor experience in the backcountry and wilderness areas of the park are considered in the *Winter and Shoulder Season Plan*.

Messaging and Communication

Many of the ideas discussed in this plan involve the way that the NPS communicates with visitors and provides key messages about the winter and shoulder seasons in Denali. The following is a summary of the elements of the *Winter and Shoulder Season Plan* addressing communication and messaging.

- Increased winter and shoulder season visitation affords the possibility for the NPS to provide increased ranger programs and other interpretive and visitor contact opportunities during these times of year, dependent on available staffing levels. These programs and other opportunities could include, among many other creative possibilities:
 - Ranger-led snowshoe walks or ski outings in the entrance area or at Mountain Vista
 - A staffed Savage River patrol cabin to provide visitor contact and historical interpretation in the Mountain Vista area if the road is plowed west of Headquarters in winter months
 - Ranger-led bike trips on the Park Road west of Teklanika during the shoulder seasons
 - Opportunity for increased backcountry visitor contacts by the park kennels
- Winter driving safety information should be provided to visitors and potential visitors before they arrive at the park as well as when they are at the park. This would be particularly important if the Park Road is plowed west of Headquarters in winter months. Communication materials could include written information on the park website, a recorded safety briefing available online and at the visitor center, or information distributed to car rental agencies, tourism boards, and interagency visitor centers around the state. Outside partners such as commercial operators and car rental agencies are often a primary means by which visitors receive information about Denali, and they can be a valuable means of distributing winter conditions safety information.
- The NPS strives to consistently focus messaging surrounding the park kennels on the function of the kennels, rather than the opportunity to directly interact with the park sled dogs themselves. The consistency of this message could be improved by ensuring that all divisions and work groups within the park recognize the importance of this effort, and by ensuring that commercial operators, tourism boards, and visitor centers recognize how a visit to the Denali National Park kennels may differ from visits to commercial kennels.
- The winter and shoulder season visitor experience could be enhanced by a variety of temporary or seasonal signage. This could include:
 - Temporary signs on the roadside near the Teklanika rest area to indicate where and how to park safely along the road in the vicinity of the rest area during the shoulder seasons

- Informational signs or temporary kiosks at the gates near Headquarters (winter) and the Teklanika rest area (shoulder seasons) to more effectively welcome visitors to the park and encourage them to explore beyond the gate via non-motorized means
- Signage at the Teklanika rest area during the shoulder seasons that emphasizes wildlife safety and shoulder season-specific information, such as encountering wildlife while cycling
- Temporary wands and/or other signage on trails at Mountain Vista to aid with navigation and to safely separate user groups
- Improved interpretive signage and displays at the winterized railroad depot shelter

Plan Concepts

The concepts in Table 8 outline what the park could look and feel like if different combinations of actions described in this plan were taken. Concepts are not final alternatives or proposed actions, but an illustration of a few of the various directions the park could take when implementing ideas described in this plan.

Potential implications resulting from implementation of the concepts as well as estimated costs are summarized below each concept description. Costs are rough estimates only; actual costs are highly dependent on how many visitors the park receives during which portions of the winter and shoulder seasons. Many of the investments in staffing and facilities to support winter and shoulder season visitation would also benefit summer visitors.

Table 8. Plan concepts demonstrating several possible directions the park could take when implementing ideas from the Winter and Shoulder Season Plan

	Concept A: No Implementation	Concept B: Light Touch	Concept C: Approachable Wilderness	Concept D: Varied Experiences	Concept E: Focus on the Frontcountry
Winter Road Plowing	No plowing	No plowing	No plowing	Plowing to Mtn. Vista in February	Plowing to Mtn. Vista in February
Spring Road Access	As at present – large bus tours start early to mid-May, no CUAs	Small vehicle tours operate, no large buses until summer	Small vehicle tours operate, no large buses until summer	Small vehicle tours operate, large buses go to Primrose, shuttle bus service to Teklanika	As at present – large bus tours start early to mid-May, no small vehicle tours to Teklanika
Trails	<ul style="list-style-type: none"> • No grooming • No Aufeis Trail • No Spring Trail reroute 	<ul style="list-style-type: none"> • Continue grooming at entrance only • Aufeis Trail as a visitor opportunity • No Spring Trail reroute 	<ul style="list-style-type: none"> • Continue grooming at entrance • Nenana River trail grooming • Aufeis Trail as a visitor opportunity • No Spring Trail reroute 	<ul style="list-style-type: none"> • Continue grooming at entrance • Nenana River trail grooming • No Aufeis Trail opportunity • Spring Trail reroute 	<ul style="list-style-type: none"> • Continue grooming at entrance • Nenana River trail grooming • No Aufeis Trail opportunity • Spring Trail reroute
Visitor Center	Intimate visitor center with adjacent heated facility (e.g., keep using the MSLC and Murie Dining Hall as at present)	Intimate visitor center with adjacent heated facility capable of a quality visitor experience (e.g., improve experience at the Murie Dining Hall and open DVC earlier / later)	Expanded visitor center in the vicinity of the MSLC (e.g., addition to MSLC)	Flagship visitor center in the entrance area, but not on the DVC campus (e.g., retrofit Denali Bus Depot and open DVC earlier / later)	Flagship visitor center on the DVC campus (e.g., retrofit the DVC, construct new building)
Public Use Shelters	No public use shelters available to general public	No public use shelters available to general public	Public use shelter trial; if successful max = roadside locations with vault toilets	Public use shelter trial; if successful max = roadside locations with vault toilets	No public use shelters available to general public
Other Visitor Opportunities	No new visitor opportunities	<ul style="list-style-type: none"> • Teklanika and Savage campgrounds open earlier • Spring roadside camping 	<ul style="list-style-type: none"> • Teklanika and Savage campgrounds open earlier • Spring roadside camping 	<ul style="list-style-type: none"> • Staffed Savage cabin • Teklanika and Savage campgrounds open earlier • Spring roadside camping 	<ul style="list-style-type: none"> • Staffed Savage cabin • Increased visitor contacts in the historic Headquarters district

Concept A: No Implementation

In this concept, the park would not attempt to address changing visitation patterns by taking any action discussed in this plan that could affect the winter and shoulder season visitor experience. If none of the actions or ideas described in the *Winter and Shoulder Season Plan* were implemented, the park would continue to provide opportunities for primarily non-motorized recreation on entrance area trails and the unplowed Park Road, as well as access to the wilderness. No entrance area trails would be groomed, and the MSLC would remain the winter visitor center without additions or improvement.

In the fall, private vehicles could continue to drive the Park Road to the Teklanika rest area until winter weather closes the Park Road at Headquarters. During the winter season, visitors could explore the MSLC, recreate on the user-maintained trails in the entrance area, and drive the Park Road as far as Headquarters. Backcountry travel and camping opportunities would remain unchanged, without the availability of public use shelters. With the expiration of the winter road plowing trial period, the Park Road would remain unplowed until spring road opening operations commence in late March or early April. In the spring, private vehicles could continue to access the Teklanika rest area, and large bus tours would begin in early to mid-May without a shuttle service or smaller-vehicle commercial operators. The Teklanika and Savage River campgrounds would not be available for shoulder season camping.

Impacts to resources and park facilities could remain unchanged from the present. However, a lack of park action in the face of increasing and changing visitation could also lead to impacts on park facilities, the visitor experience, and park resources.

Table 9. Summary of possible implications of Concept A: No Implementation

Concept A: No Implementation	
Winter Road Plowing	Not plowing the road during winter months would decrease the impact of plowing operations on wildlife and soundscape, but would eliminate vehicle access to an additional nine miles of park road and would change the type of commercial services available there (from vehicle tours to non-motorized guiding).
Spring Road Vehicle Access	Large bus tours operating earlier into the spring season and later into the fall season bring large volumes of visitors when park facilities are not capable of providing for them. Private vehicles have access to Teklanika, which may impact wildlife. There is no shuttle service or small vehicle tour option.
Trails	Without implementation, no trails would be groomed and all winter routes in the park would be user-maintained. This would decrease impacts to the soundscape, but would also affect the visitor experience.
Visitor Center	The MSLC does not provide adequate space or bathroom availability during the shoulder seasons, and cannot support greatly increased visitation. The leach field requires pumping throughout the winter and shoulder seasons.
Public Use Shelters	Without public use shelters impacts to park resources would be unchanged from present conditions, but this opportunity would not be available to visitors who are not guided by the dogsled concessioner.
Other Visitor Opportunities	No availability of additional visitor opportunities.

Table 10. Estimated costs of Concept A: No Implementation

Concept A: No Implementation			
	<i>Construction / Upfront Costs</i>	<i>Ongoing / Operational Costs</i>	<i>Total Cost</i>
Winter Road Plowing	\$0	\$0	\$0
Spring Road Vehicle Access	\$0	\$106,000	\$106,000
Trails	\$0	\$0	\$0
Visitor Center	\$20,000	\$20,000	\$40,000
Public Use Shelters	\$0	\$0	\$0
Other Visitor Opportunities	\$0	\$0	\$0
Subtotals	\$20,000	\$126,000	\$146,000

Concept B: Light Touch

In this concept, park actions change the current conditions as little as possible while still providing increased quantity and quality of winter and shoulder season visitor opportunities. Trails in the entrance area of the park could continue to be groomed, without expanding grooming to the Nenana River trails area. The MSLC would remain the winter and shoulder season visitor center, with utility system repairs and additional space in the nearby Murie Dining Hall improved with quality visitor center exhibits. The DVC could open earlier in the spring and later into the fall to accommodate busy times of the shoulder seasons.

In the fall, private vehicles could continue to drive the Park Road to the Teklanika rest area until winter weather closes the Park Road at Headquarters. The Park Road would remain unplowed throughout the winter to provide a non-motorized recreational opportunity. The Aufeis Trail could be maintained and advertised as a public recreational opportunity. Backcountry travel and camping opportunities would remain unchanged, without the availability of public use shelters. In the spring, camping options would include the Teklanika and Savage campgrounds as well as roadside pullouts on the closed section of Park Road. Private vehicles could continue to access the Teklanika rest area in the spring, and smaller-vehicle commercial operators could provide a guided tour opportunity to Teklanika. Large bus tours would not begin until the summer season, approximately May 20.

Table 11. Summary of possible implications of Concept B: Light Touch

Concept B: Light Touch	
Winter Road Plowing	Not plowing the road during winter months would decrease the impact of plowing operations on wildlife and soundscape, but would eliminate vehicle access to an additional nine miles of park road and would change the type of commercial services available there (from vehicle tours to non-motorized guiding).
Spring Road Vehicle Access	Limiting large bus tours to the summer season would change the visitor experience and potentially put less stress on park facilities during the shoulder seasons. Small vehicle tours could provide a substitute visitor experience. Private vehicles would have access to Teklanika, which may impact wildlife.
Trails	Grooming trails at the entrance area would impact the soundscape of this region, but would also provide a visitor opportunity not otherwise available. Providing the Aufeis Trail as an opportunity would require brushing and other trail maintenance.

Visitor Center	Improving the visitor experience in the Murie Dining Hall requires NPS use of a concessioner-assigned building and would necessitate a twice-yearly switch in building function, furnishing, exhibits, and other installations.
Public Use Shelters	Without public use shelters impacts to park resources would be unchanged from present conditions, but this opportunity would not be available to visitors who are not guided by the dogsled concessioner.
Other Visitor Opportunities	Additional shoulder season camping opportunities could be an improvement in the visitor experience, but requires use of park facilities during a time of year when maintenance is difficult. Roadside camping may concentrate use on durable surfaces, but could also concentrate human waste and other impacts from camping.

Table 12. Estimated costs of Concept B: Light Touch

Concept B: Light Touch			
	<i>Construction / Upfront Costs</i>	<i>Ongoing / Operational Costs</i>	<i>Total Cost</i>
Winter Road Plowing	\$0	\$0	\$0
Spring Road Vehicle Access	\$0	\$77,000	\$77,000
Trails	\$0	\$2,000	\$2,000
Visitor Center	\$75,000	\$5,000	\$80,000
Public Use Shelters	\$0	\$0	\$0
Other Visitor Opportunities	\$3,000	\$42,000	\$45,000
Subtotals	\$78,000	\$126,000	\$204,000

Concept C: Approachable Wilderness

In this concept, the park would take actions focused on supporting and augmenting wilderness and non-motorized recreation in Denali in a variety of ways. Compared to current conditions, the park would offer a greater range of outdoor recreational opportunities. Suitable trails in the entrance area and potential trails in the Nenana River area would be groomed for skiing and snowshoeing. An expanded MSLC would provide increased visitor center space and adequate facilities for larger numbers of visitors.

In the fall, private vehicles could continue to drive the Park Road to the Teklanika rest area until winter weather closes the Park Road at Headquarters. The Park Road would remain unplowed throughout the winter to provide a non-motorized recreational opportunity. The Aufeis Trail could be maintained and advertised as a public recreational opportunity. The park would implement a trial of winter public use shelters to support wilderness recreation. In the spring, camping options could include the Teklanika and Savage campgrounds as well as roadside pullouts on the closed section of Park Road. Private vehicles could continue to access the Teklanika rest area in the spring, and smaller-vehicle commercial operators could provide a guided tour opportunity to Teklanika. Large bus tours would not begin until the summer season, approximately May 20.

Table 13. Summary of possible implications of Concept C: Approachable Wilderness

Concept C: Approachable Wilderness	
Winter Road Plowing	Not plowing the road during winter months would decrease the impact of plowing operations on wildlife and soundscape, but would eliminate vehicle access to an additional nine miles of park road and would change the type of commercial services available there (from vehicle tours to non-motorized guiding).
Spring Road Vehicle Access	Limiting large bus tours to the summer season would change the visitor experience and potentially put less stress on park facilities during the shoulder seasons. Small vehicle tours could provide a substitute visitor experience. Private vehicles would have access to Teklanika, which may impact wildlife.
Trails	Grooming trails at the entrance area and in the Nenana River Trails area would impact the soundscape of these regions, but would also provide a visitor opportunity not otherwise available. Providing the Aufeis Trail as an opportunity would require brushing and other trail maintenance.
Visitor Center	An expanded MSLC could more effectively accommodate increased visitor numbers and provide a conveniently located visitor center. However, it would require an expansion of the footprint of NPS facilities in the entrance area.
Public Use Shelters	A public use shelter system would provide a new visitor opportunity in Denali, and could encourage more non-motorized recreation in the park. However, resource impacts from recreational use would likely be concentrated around the shelters and there is a possibility that motorized use would also increase from emergency response.
Other Visitor Opportunities	Additional shoulder season camping opportunities could be an improvement in the visitor experience, but requires use of park facilities during a time of year when maintenance is difficult. Roadside camping may concentrate use on durable surfaces, but could also concentrate human waste and other impacts from camping.

Table 14. Estimated costs of Concept C: Approachable Wilderness

Concept C: Approachable Wilderness			
	<i>Construction / Upfront Costs</i>	<i>Ongoing / Operational Costs</i>	<i>Total Cost</i>
Winter Road Plowing	\$0	\$0	\$0
Spring Road Vehicle Access	\$0	\$77,000	\$77,000
Trails	\$0	\$29,000	\$29,000
Visitor Center	\$2.8 million	\$35,000	\$2.8 million
Public Use Shelters	\$110,000	\$66,000	\$176,000
Other Visitor Opportunities	\$3,000	\$42,000	\$45,000
Subtotals	\$2.9 million	\$249,000	\$3.1 million

Concept D: Varied Experiences

In this concept, changes from present conditions are focused on increasing the diversity of winter and shoulder season recreational opportunities and encouraging visitors to explore the park by any of a number of possible means. Compared to current conditions, the park provides a wider array of experiences across a variety of locations, ranging from easy and comfortable activities to wilderness adventures. Suitable trails in the entrance area and potential trails in the Nenana River area would be groomed for skiing and snowshoeing. The Denali Bus Depot would be renovated to support year-round use and provide a winter and shoulder season visitor center capable of handling greatly increased visitation.

In the fall, private vehicles could continue to drive the Park Road to the Teklanika rest area until winter weather closes the Park Road at Headquarters. The road would be plowed open again beginning in mid-February to provide a winter motorized sightseeing opportunity. The Spring Trail would require a reroute to maintain access for mushers during winter plowing. The park would implement a trial of winter public use shelters to support wilderness recreation. In the spring, camping options would include the Teklanika and Savage campgrounds as well as roadside pullouts on the closed section of Park Road. Private vehicles could continue to access the Teklanika rest area in the spring, and smaller-vehicle commercial operators could provide a guided tour opportunity to Teklanika. Large bus tours could begin operating in mid-May to the Primrose pullout, with a concurrent bus shuttle operating to the Teklanika rest area.

Table 15. Summary of possible implications from Concept D: Varied Experiences

Concept D: Varied Experiences	
Winter Road Plowing	Plowing the road during winter months provides visitors the opportunity for motorized sightseeing in the park and facilitates visitor exploration of a greater variety of terrain. However, plowing adversely impacts park wildlife and soundscape.
Spring Road Vehicle Access	Allowing large bus tours to Primrose concurrently with shuttle service and small bus tours would provide multiple options for park access and could preserve the desired shoulder season visitor experience of the park road. Private vehicles would have access to Teklanika, which may impact wildlife.
Trails	Grooming trails at the entrance area and in the Nenana River Trails area would impact the soundscape of these regions, but would also provide a visitor opportunity not otherwise available. Rerouting the Spring Trail would require constructing new trail in wilderness.
Visitor Center	Retrofitting the Denali Bus Depot would require extensive upgrades to the building as well as NPS use of a concessioner-assigned building and twice-yearly switch of building function during the shoulder seasons. The main visitor center would be distant from the railroad depot and most park trails. However, the Denali Bus Depot could accommodate greatly increased winter and shoulder season visitation.
Public Use Shelters	A public use shelter system would provide a new visitor opportunity in Denali, and could encourage more non-motorized recreation in the park. However, resource impacts from recreational use would likely be concentrated around the shelters and there is a possibility that motorized use would also increase from emergency response.
Other Visitor Opportunities	Additional shoulder season camping opportunities could be an improvement in the visitor experience, but requires use of park facilities during a time of year when maintenance is difficult. Roadside camping may concentrate use on durable surfaces, but could also concentrate human waste and other impacts from camping. A staffed Savage cabin could provide increased visitor contacts and interpretive opportunities, but would require increased staffing.

Table 16. Estimated costs of Concept D: Varied Experiences

Concept D: Varied Experiences			
	<i>Construction / Upfront Costs</i>	<i>Ongoing / Operational Costs</i>	<i>Total Cost</i>
Winter Road Plowing	\$50,000	\$55,000	\$105,000
Spring Road Vehicle Access	\$0	\$77,000	\$77,000
Trails	\$95,000	\$29,000	\$124,000
Visitor Center	\$3.5 million	\$60,000	\$3.5 million
Public Use Shelters	\$110,000	\$66,000	\$176,000
Other Visitor Opportunities	\$3,000	\$82,000	\$85,000
Subtotals	\$3.9 million	\$369,000	\$4.3 million

Concept E: Focus on the Frontcountry

In this concept, changes from present conditions focus primarily on augmenting the frontcountry and road-based visitor experiences, leaving backcountry, wilderness, and camping opportunities largely unchanged from present conditions. Suitable trails in the entrance area would be groomed for skiing and snowshoeing. The Denali Visitor Center would be retrofitted to be able to withstand winter conditions and support use by a large number of visitors during the winter and shoulder seasons, providing a consistent level of visitor service throughout the year.

In the fall, private vehicles could continue to drive the Park Road to the Teklanika rest area until winter weather closes the Park Road at Headquarters. The road would be plowed open again beginning in mid-February to provide a winter motorized sightseeing opportunity. The Spring Trail would require a reroute to maintain access for mushers during winter plowing. Backcountry travel and camping opportunities would remain unchanged, without the availability of public use shelters. Shoulder season camping options would not include use of the Savage River or Teklanika campgrounds. In the spring, private vehicles could continue to access the Teklanika rest area and large bus tours would provide a guided option in early May without smaller-vehicle commercial operators.

Table 17. Summary of possible implications of Concept E: Focus on the Frontcountry

Concept E: Focus on the Frontcountry	
Winter Road Plowing	Plowing the road during winter months provides visitors the opportunity for motorized sightseeing in the park and facilitates visitor exploration of a greater variety of terrain. However, plowing adversely impacts park wildlife and soundscape.
Spring Road Vehicle Access	Large bus tours operating earlier into the spring season and later into the fall season bring large volumes of visitors when park facilities are not capable of providing for them. Private vehicles have access to Teklanika, which may impact wildlife. There is no shuttle service or small vehicle tour option.
Trails	Grooming trails at the entrance area would impact the soundscape of this region, but would also provide a visitor opportunity not otherwise available. Rerouting the Spring Trail would require constructing new trail in wilderness.
Visitor Center	Retrofitting the Denali Visitor Center would require extensive upgrades to the building. However, the main visitor center would be close to the railroad depot and most park trails, and would be consistent throughout the year. The Denali Visitor Center could accommodate greatly increased winter and shoulder season visitation.

Public Use Shelters	Without public use shelters impacts to park resources would be unchanged from present conditions, but this opportunity would not be available to visitors who are not guided by the dogsled concessioner.
Other Visitor Opportunities	A staffed Savage cabin and increased interpretive opportunities in the historic Headquarters district could provide an improved visitor experience, but would require increased staffing.

Table 18. Estimated costs of Concept E: Focus on the Frontcountry

Concept E: Focus on the Frontcountry			
	<i>Construction / Upfront Costs</i>	<i>Ongoing / Operational Costs</i>	<i>Total Cost</i>
Winter Road Plowing	\$50,000	\$55,000	\$105,000
Spring Road Vehicle Access	\$0	\$106,000	\$106,000
Trails	\$95,000	\$29,000	\$124,000
Visitor Center	\$5.9 million	\$45,000	\$5.9 million
Public Use Shelters	\$0	\$0	\$0
Other Visitor Opportunities	\$0	\$60,000	\$60,000
Subtotals	\$6.1 million	\$295,000	\$6.4 million

Chapter 3. Plan Implementation

Operational Implications

Ideas discussed in the *Winter and Shoulder Season Plan* have implications for how the park might spend its budget, allocate staff time, and adjust other park operations to accommodate changes to winter and shoulder season visitor use. This section describes some of those implications to give insight into the operational commitments and tradeoffs that may result from implementation of some of the ideas discussed in this plan.

Constraints

The operational implications below are further underscored by additional constraints, some of which are beyond the control of the park. These constraints include:

- Weather during the winter and shoulder seasons is often harsh and unpredictable. This affects access to the Park Road and the visitor opportunities that the park can offer. Park facilities are also affected by weather during these months, as freezing temperatures can impact the availability of water and wastewater utilities.
- The ability to staff the park is dependent the park budget and is further constrained by hiring regulations. Seasonal staff can only work limited hours in a season, and the months that a season can encompass are defined by the larger NPS, not Denali National Park. Extending these parameters to include the winter and shoulder seasons generally necessitates permanent positions, which can be difficult to fund and hire.
- Many visitors come to Denali to view wildlife, however, wildlife are generally less visible during the winter and shoulder seasons. Attempting to provide a summer-like visitor experience during the shoulder seasons, for example, may result in a mismatch between visitor expectations and what Denali actually offers during those times of year.

Park Administration

- Winter road plowing impacts the ability of the park kennels to efficiently and safely access the park for training, patrols, and project work
- Limiting or eliminating routine administrative aircraft landings on Wonder Lake impacts the efficiency and safety of the park kennels operations and other park operations in the Wonder Lake area
- Attempting to minimize administrative traffic west of the gate at the Teklanika rest area would impact park operations

Monitoring

- Southern new park additions are not addressed in this plan and should be studied, perhaps in conjunction with the Stampede corridor, to determine if resource and visitor experience conditions warrant a separate planning effort

- Monitoring will be necessary for the resource and visitor experience effects of many of the actions discussed in the plan, including winter road plowing, shoulder season road use, and public use shelters (see Monitoring and Adaptive Management, p. 69)

Staffing and Funding

Many of the potential actions described in this plan would require additional NPS staff and funding to support. These actions include:

Winter Road Plowing

- Staff and equipment to conduct plowing
- Response to winter road emergencies
- Maintenance of facilities at Mountain Vista during winter months
- Staffing the Savage cabin as a visitor contact station
- Possible future need of a shuttle to Mountain Vista

Shoulder Season Road Use

- Maintenance of roadside vault toilet facilities
- Staff to prepare Savage and Teklanika campgrounds for later use in the fall and earlier use in the spring
- Installation and removal of temporary parking lines, roadside parking signs, an “iron ranger” fee collector, and informational kiosks or signs at the Teklanika rest area
- Staff to provide increased NPS presence and wildlife safety information at the Teklanika rest area and west of the road closure gate at Teklanika as well as to patrol and monitor the road corridor to manage human-wildlife interactions
- Possible future need to staff the Savage River check station in the shoulder seasons

Trails

- Staff and equipment to provide continued or expanded trail grooming
- Winter use on existing trail surfaces compacts snow and ice, resulting in potential trail damage necessitating maintenance and repair to the trail surface during the summer

Public Use Shelters

- Staff to possibly construct and manage public use shelters during an initial trial period, including reservations, stocking, maintenance, insertion and removal, patrol, and emergency response
- If a trial period is successful and public use shelters are continued, there will be ongoing needs for staff to conduct patrols, insert, maintain, and remove the shelters
- Public use shelters would have to be removed and repurposed or stored for the summer season

Other Visitor Facilities

- Increased visitation requires increased custodial staff and attention to wastewater systems
- Staff for increased visitor contacts in the Headquarters historic district and at other locations

Type I Concession Contract Holder

Many of the ideas discussed in the *Winter and Shoulder Season Plan* involve visitor services and facilities provided by the transportation contract holder. Implications for the transportation contract holder include possibilities for changes to:

Transportation Services

- Offering a shuttle to Teklanika in the spring and/or whenever tours buses are operating
- Limiting spring season tours to Primrose
- Restricting the dates that spring tours can operate

Facilities

- Possible long-term NPS use of concessioner-assigned property, including:
 - Murie Dining Hall
 - Denali Bus Depot
- Extending the open dates of Savage and Teklanika campgrounds for primitive camping, including possible needs for:
 - Reservations
 - Maintenance
 - Campground host

Other Services

- Food service in the frontcountry, including possibilities for:
 - Vending machines or similar in the Murie Dining Hall
 - Preparing food during busy times of winter and shoulder season visitation
 - Possibly a greater extent of service in the future

Resource Implications

The ideas discussed in the *Winter and Shoulder Season Plan* also have potential resource impacts. Resources of key concern include wildlife, wilderness character, soundscape, and possible impacts from changes to visitor use patterns.

Wildlife

- Winter road plowing potentially increases human-wildlife interaction and stresses wildlife during a difficult time of year, particularly in high snow years
- Vehicle access to the park road during the shoulder seasons, and particularly the spring, has the potential to increase human-wildlife interactions and affect wildlife movement and other behaviors. This is especially important with species that migrate through the road corridor in the spring such as Dall sheep
- Increasing numbers of pedestrians and especially cyclists on the park road could increase unsafe human-wildlife interactions

Wilderness Character

Impacts to the qualities of wilderness character from ideas discussed in the plan could include:

- Natural
 - Vegetation and soil impacts from informal trail creation as a result of increased use, especially in connection with public use shelters
- Undeveloped
 - Possible increase in administrative use of snowmobiles and helicopters for emergency response
- Solitude or primitive and unconfined recreation
 - Establishment of public use shelters near wilderness
 - Impacts to soundscape from winter road plowing
 - Additional miles of winter trail in wilderness from a re-route of the Spring Trail

Soundscape

- Increased winter use of the park and shifting administrative aircraft landings from Wonder Lake to Kantishna could increase the amount of aviation based out of the Kantishna airstrip, impacting the surrounding soundscape
- Winter road plowing impacts a portion of the park with little to no previous soundscape disturbance in winter months
- Administrative use of snowmobiles to groom entrance area trails impacts the surrounding soundscape

Visitor Use Patterns

- Public use shelters could alter and concentrate visitor use, leading to the formation of informal trails with impacts on soil, permafrost, and vegetation as well as concentration of other impacts
- Authorized camping in roadside pullouts without vault toilet facilities could create concentrated impacts from human waste

Monitoring and Adaptive Management

If ideas in the *Winter and Shoulder Season Plan* are implemented, the NPS will need to commit to monitor aspects of the visitor experience and park resources in order to achieve desired conditions. This section describes some of the key aspects related to desired conditions for visitor experience and resource conditions that may need to be monitored depending on which potential actions described in this plan are implemented.

In order to use data gleaned from monitoring for adaptive management, the NPS would have to establish precise indicators and thresholds for areas of monitoring interest. These standards and thresholds are not established here, but would be a part of environmental documents authorizing implementation of the ideas discussed in the *Winter and Shoulder Season Plan*.

Winter Plowing

- Monitor every few years to assess road conditions, equipment needs, wildlife behavior, crowding on the road and at Mountain Vista, and visitor safety

Spring Road Use

- Wildlife behavior and human-wildlife interactions from entrance to Toklat, to include vehicles, pedestrians, and cyclists
 - Differences in wildlife reactions to vehicles, pedestrians, and cyclists
- Traffic levels and patterns
 - Amount of time on the road with no traffic (i.e., “sheep gaps” from VMP monitoring)
 - Times of heaviest use
 - Parking capacity at Teklanika rest area and other parking areas
- Crowding and other social impacts
 - Crowding at Teklanika rest area
 - Crowding on the section of road open to vehicles, especially at wildlife stops
 - Crowding on the closed section of road
 - Factors that affect the spring visitor experience (i.e., are shuttles desired, additional or different commercial services that would be beneficial to visitors, perceptions of large bus tours)
- Resource and other impacts from use of currently dormant campgrounds and roadside pullouts

Public Use Shelters

- Visitor use patterns
 - Occupancy rates
 - User group profiles
 - Damage to the structures and nearby facilities
 - Amount of administrative snowmobile, helicopter, and other motorized use necessary for emergency response
- Resource impacts
 - Informal trail creation
 - Human waste issues

- Resource damage from wood collection for heating, grey water disposal, or dog waste

Areas Not in the Plan

- Southern new park additions need concerted resource and visitation monitoring, with similar monitoring possibly needed on the Stampede corridor as well

Other Monitoring Needs

- Soundscapes and night skies require monitoring every few years to ensure desired conditions for these resources are met

Conclusion and Next Steps

It is unlikely that decisions about all of the ideas presented in the *Winter and Shoulder Season Plan* would be made at one time. Rather, decisions would likely be made as needed, or as funding for implementation is available, needs arise, or other conditions change prompting action.

The phases described below illustrate one possible sequence in which decisions could be made about the ideas discussed in this plan. This sequence takes into consideration needs to be addressed, the feasibility of executing the idea, likely funding requirements and availability, and the extent to which greater detail is needed before a decision can be made.

These phases are meant to illustrate a possible order in which decisions could be made following from the *Winter and Shoulder Season Plan*, and are not intended to suggest that evaluating these ideas would necessarily result in implementation or action. Evaluation of the ideas in these phases would be conducted with the National Environmental Policy Act (NEPA) process and other required compliance, as appropriate, and after conclusion of public comment analysis on this plan. At the least, a final decision is needed on winter plowing given the expiration of the trial period initiated in 2014. Decision documents produced as a result of the NEPA process may amend previous park planning documents such as the *2006 Backcountry Management Plan* or the *1986 General Management Plan*.

Phase 1

The ideas considered in Phase 1 address current visitor needs, do not require extensive amounts of additional information to evaluate, and are relatively easily accomplishable, if the decision is made to implement them. Phase 1 would evaluate options related to:

- Winter road plowing (p. 28)
- Providing improved musher's access at Mountain Vista (p. 40)
- Shoulder season vehicle access to the Park Road (p. 29)
- Appropriate commercial opportunities (p. 49)
- Installing signs or informational kiosks at the gates at Headquarters and the Teklanika rest area (p. 53-56)

- Providing temporary parking lines at the Teklanika rest area (p. 48)
- Providing increased opportunities for shoulder season camping (p. 45, 47)
- Snowmobile grooming of trails in the entrance area (p. 37)
- Continuing discussion with businesses and local communities regarding visitor services best provided inside and outside of the park (p. 11, 49)

Phase 2

The topics evaluated in Phase 2 address important visitor needs, but may be contingent on decisions made in Phase 1, require additional funding, or require more focused and extensive individual attention and evaluation.

- Reroute of the Spring Trail (p. 38)
- Winter and shoulder season visitor center (p. 42)

Phase 3

Topics evaluated in Phase 3 would provide additional visitor opportunities, but would require increased funding and NPS staff capacity as well as more focused and extensive individual attention and evaluation.

- Public use shelters (p. 45)

Glossary

1980 Additions – See Park Additions.

Aufeis – Ice that forms from the freezing of successive flows of groundwater over previously formed layers of ice.

Extent Necessary Determination – A specific evaluation required by the 1964 Wilderness Act whereby the NPS determines whether commercial use is necessary in wilderness, and to what extent.

Formal Grooming – Intentional grooming of snow for recreational use, conducted for no other reason than to provide a recreational opportunity (i.e., not conducted opportunistically as a secondary aspect of a different activity).

New Park – See Park Additions.

Old Park – The land included in the former Mount McKinley National Park, prior to the 1980 addition of park and preserve lands under the Alaska National Interest Lands Conservation Act (ANILCA, see Park Additions). These approximately 2 million acres of land were largely designated as wilderness within Denali National Park and Preserve by ANILCA.

Park Additions – Approximately 4 million acres of land added to the former Mount McKinley National Park by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA), creating Denali National Park. These 4 million acres of park additions include approximately 2.5 million acres of national park land and 1.3 million acres of preserve land.

Quinzee – A small (12'x14') wooden structure with a sloped roof and heated with a wood stove that provides bunk space for up to four people.

Road Lottery – Four or five days at the end of the summer season when 400 permits per day are issued for private vehicle access to the entirety of the Park Road, weather permitting. In the *Winter and Shoulder Season Plan* the fall shoulder season begins after the last day of Road Lottery.

Shoulder Seasons – The term 'shoulder seasons' refers to the fall and spring seasons. When used in the *Winter and Shoulder Season Plan*, these seasons are:

- *Fall Shoulder Season* – The time of year between the day immediately following the last day of Road Lottery (typically in mid to late September) until wintry weather closes the Park Road and it is not plowed open again when the weather breaks (typically sometime in October).
- *Spring Shoulder Season* – The time of year between when spring road opening operations permit public vehicle traffic west of the Mountain Vista rest area (typically in mid-April) and the full complement of summer services and facilities are open to the public, (typically in mid to late May).

Spring Road Opening – The road plowing effort that typically commences in mid to late March to clear the Park Road of snow and ice and prepare it for summer traffic. Spring road opening typically progresses

from east to west from Headquarters, and in the past has allowed for private vehicle access at far west as the Teklanika rest area during the spring shoulder season.

Summer Season – When used in the *Winter and Shoulder Season Plan*, the ‘summer season’ is the time of year between when the full complement of summer services and facilities are open to the public (typically in mid to late May) and the last day of Road Lottery (typically mid to late September).

User-maintained – Trails or routes that are not maintained by the NPS. In the winter season, this includes winter routes and winter trails that the NPS does not shovel, groom, or otherwise formally maintain.

Vault Toilet – A restroom facility without running water where waste is contained in a concrete, steel, or plastic tank and pumped out.

Winter Route – A travel corridor used in the winter that may or may not follow a formal year-round trail surface or a maintained cut through the brush. Winter routes may remain the same or vary in location year to year.

Winter Season – When used in the *Winter and Shoulder Season Plan*, the ‘winter season’ refers to the time of year between when wintry weather closes the Park Road and it is not plowed open again when the weather breaks (typically sometime in October) until spring road opening operations permit public vehicle traffic west of the Mountain Vista rest area, (typically in mid-April).

Winter Trail – A trail specifically designed and maintained for winter season use, typically by providing a cut through trees and brush, but not by establishing a year-round trail surface. Examples include the Spring Trail and the Aufeis Trail.

Winter Plowing – Any effort to plow the Park Road open for public vehicle access during the winter season, from the first winter weather in the fall until spring road opening plowing begins.

References

- Alaska Department of Commerce, Community, and Economic Development, Division of Economic Development. (2018). *Alaska visitor volume report: Fall/winter 2015-16, 2016-17, and 2017-18*. Retrieved from <https://www.commerce.alaska.gov/web/ded/DEV/TourismDevelopment/TourismResearch.aspx>
- National Park Service. (1997). *Denali National Park and Preserve entrance area and road corridor development concept plan* (GPO Publication No. 1997-843-305).
- National Park Service. (2000). *The status of snowmobile studies in Denali National Park and Preserve: Winter 1999/2000*. (Unpublished report).
- National Park Service. (2006). *Denali National Park and Preserve final backcountry management plan*. Retrieved from <https://irma.nps.gov/DataStore/Reference/Profile/654189>
- National Park Service. (2007). *Denali National Park and Preserve road design standards*.
- National Park Service. (2012). *Denali park road final vehicle management plan and environmental impact statement*. Retrieved from <https://irma.nps.gov/DataStore/Reference/Profile/2259344>
- National Park Service. (2013). *2011 Denali National Park and Preserve visitor characteristics*. (Natural Resource Technical Report NPS/AKR/NRTR-2013/669. Prepared by Fix, P.J., Ackerman, A., and Fay, G.
- National Park Service. (2019a). *Denali National Park and Preserve winter visitor use: Winter visitor experience survey and early road opening collaborative study*. (Natural Resource Report NPS/DENA/NRR-2019/1893). Prepared by Aberg, M., Keller, R., and Clark, W.C.
- National Park Service. (2019b). *Kantishna and Wonder Lake area plan: Range of proposals for public feedback*. Retrieved from <https://parkplanning.nps.gov/projectHome.cfm?projectID=83494>
- National Park Service. (2019c). *National Park Service visitor use statistics*. [Online dataset]. Retrieved from <https://irma.nps.gov/Stats/>
- Phillips, L.M., & Meier, T. (2010). Assessing impacts of traffic on large mammals in Denali National Park and Preserve. *Park Science*, 27(2), 42-47.