



# Black Hills National Forest

## Draft Forest Assessment:

## Recreation Settings, Opportunities, and Scenic Character



Black Hills National Forest

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## **Chapter 1. Introduction**

The Black Hills National Forest (Black Hills NF) is managed by the United States Forest Service (U.S. Forest Service), an agency of the U.S. Department of Agriculture (USDA). The mission of the USFS is to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations. The National Forest Management Act requires all National Forests to develop a land and resource management plan (forest plan) to guide management actions and decisions. The current Black Hills NF Forest Plan was approved in 1997. The National Forest Management Act requires that these forest plans be periodically updated in accordance with the Forest Service Manual (FSM) 2310.3. The Black Hills NF has identified and evaluated existing information about relevant ecological, economic, and social conditions, trends, and sustainability and how those conditions relate to management direction in the forest plan. These findings will inform the need to change the current Black Hills NF forest plan. Identifying needs for change to the current plan is an iterative process and this draft assessment report may identify preliminary needs to change, which can be further refined during the subject matter expert, cooperating agency, and public review of these documents. The iterative nature of this process will make clear which plan components in the current forest plan are proposed to be changed and which are not during the development of the revised forest plan.

### **What is an Assessment Report?**

This document is an assessment of the current known recreational settings, opportunities, and scenic character on the Black Hills NF, or the “plan area.” Approximately 110 miles long and 70 miles wide, the Forest is made up of four ranger districts and a Forest Supervisor’s Office.

### **Resource Overview**

The Black Hills NF, also referred to as the “island of the plains,” is a 1.2-million-acre area made up of rugged rock formations, canyons and gulches, open grasslands, tumbling streams, and deep blue lakes ([USDA Forest Service](#)). Specialized campgrounds, roaded recreation opportunities, and a system of trails connecting communities, showcase this Forest that provides user friendly access to year-round family activities ([USDA Forest Service](#)). The Black Hills are the east-most example of a western mountainous landscape—providing a wide range of resource opportunities.

Every year, over 620,000 people visit the Black Hills NF (NVUM, 2019). Millions more visit attractions in the surrounding areas. These visitors contribute a tremendous amount to the local economy of the Black Hills NF, and other National Forests across the country. In fact, outdoor recreation in National Forests contributes \$45 million per year to the economies of local communities, of which 73 percent is from non-local visitors (those who live in ZIP codes 30 miles or greater from the Black Hills NF boundary). This economic impact is larger than that of timber sales, grazing, and mineral development combined ([National Wildlife Federation 2014](#)). The recreational opportunity within Black Hills NF, as well as the surrounding National Parks, State Parks, National Monuments, National Memorials, and other public land sites generate sustainable economies that will continue to provide economic opportunity for the local communities in South Dakota and Wyoming, and to the greater country.

## Chapter 2. Resource Assessment

This chapter presents a discussion of the constituent elements of recreation and scenic resources of the Black Hills NF and an assessment of the current conditions and trends based on the best available data.

### Data Gaps

Information gaps exist on the condition of most trails due to the fact that they are not regularly evaluated. There is also a lack of precise spatial locations for some trails as well as a lack of data on dispersed camp sites.

Additionally, there are many unauthorized user-created mountain biking trails that have been created throughout Black Hills NF. These trails are not mapped, and an assessment of their impacts has not been completed. The current data available concerning visitation demographics, activities, visit duration, and other variables is limited. The National Visitor Use Monitoring (NVUM) survey provides a forest-wide view of recreation use, activities, and satisfaction, but it is not statistically reliable at any scale less than the forest. The aggregation of surveys across the Forest is statistically reliable at the forest-wide scale.

There is currently a lack of data concerning quantitative information about impacts of dispersed camping or other activities. There has been new information gathered on dispersed camping in recent years, but that data is not available in electronic format or in a standard mapping system. Therefore, the only reliable information available includes observations from written reports.

According to Black Hills NF staff, there is a disconnect between formal records and informal knowledge of on-the-ground employees. This represents a data gap between the perceived and actual conditions and trends in the Forest, and subsequently results in skewed data.

A consistency review of other local plans (counties, etc.) would allow Black Hills NF to evaluate if there are additional opportunities to support and contribute to recreation opportunities identified in local plans and those of other agencies. The Black Hills NF looks forward to continued collaboration with counties to evaluate areas of overlap and mutual interest.

The NVUM survey provides a forest-wide view of recreation use, activities, and satisfaction, but it is not statistically reliable at any scale less than the forest. The aggregation of surveys across the Forest is statistically reliable at the forest-wide scale.

### Current Condition and Trend

The Black Hills NF connects people with nature by means of its wide range of recreation offerings. These activities span across different skill levels, different seasons, and different recreational settings—providing an experience for everyone.

### Recreation Opportunity Spectrum

Per Forest Service Manual (FSM) 2310.3, the Recreation Opportunity Spectrum (ROS) is the land classification system the Forest Service uses to describe recreation settings and opportunities. Establishing desired ROS conditions in the Forest Plan revisions is a requirement of the 2012 planning rule (FSH 1909.12 Chapter 20, Section 23.23a).

There are three factors that are used to describe recreation settings: the physical, the social, and the managerial settings. First, the physical setting is defined by the environment. The presence of and development level of roads and motorized trails is a key determinant in ROS class for this factor. Next is the degree of modification of the environment. This modification can range from more urban/rural near

towns to minor developments in the front country (these could include structures or timber harvest activities) to very little modification in the backcountry. Second is the social setting, or the number of people or groups encountered. Lastly, the managerial setting includes rules and regulations, signage, controls on activities, and the presence and style of recreational structures.

The largest existing ROS class on the Forest is 1,095,059 acres of “roaded natural” area (88 percent, [table 1](#)). This class makes up an overwhelming majority of the Forest. The second most common class is “roaded natural non-motorized” at 78,487 acres (6 percent). See Map 1 in Appendix A for a map of the Black Hills NF ROS.

**Table 1. Recreation opportunity spectrum in the Black Hills NF**

ROS Class	Number of Acres	Percentage (%)
Primitive	10,984	0.9
Rural	711	0.1
Roaded Natural	1,095,060	87.7
Roaded Natural Non-Motorized	78,487	6.3
Semi-Primitive Motorized	11,763	0.9
Semi-Primitive Non-Motorized	28,202	2.3
Semi-Primitive Non-Motorized and Roaded Natural	11,393	0.9
Urban	< 1	< 0.1
Other	91	< 0.1
Private	9,971	0.8

Combining the three non-motorized classes (roaded natural non-motorized, and semi-primitive non-motorized, and semi-primitive non-motorized roaded natural) about 9 percent (118,080 acres) of the forest currently provides a non-motorized setting. An additional 10,984 acres are primitive, bringing the total non-motorized settings to approximately 11 percent of the overall forest lands. The remaining 89 percent of the forest provides a motorized setting during the summer months, most of which is roaded natural.

### ***Conditions and Trends for Recreation Settings***

The Black Hills NF provides a wide variety of different settings and opportunities for different recreation activities throughout the year. The Forest has 11 reservoirs, 25 campgrounds, 2 group campgrounds, 3 horse camps, 1 camping area, 26 picnic areas, 2 scenic byways, 1,300 miles of streams, 13,000 acres of wilderness, over 700 miles of designated motorized trails, and almost 400 miles of non-motorized trails. Please note that some of these totals may vary from the infrastructure assessment, which relied on a report generated in 2016 from data available at that time.

Even though the Forest attracts many different types of recreation user groups including hikers, backpackers, climbers, anglers, hunters, bicyclists, and many other forms of visitors, the Forest is most notably known for motorized vehicle recreation, camping, and sightseeing. These three forms of recreation have increased dramatically in recent years. For example, according to Black Hills NF campsite data, since 2017 an additional 13,500 people have utilized developed campsites annually. This change, as well as the increases in other forms of recreation, have resulted in the formation of activity hot spots within the Forest. These hotspots exist throughout the Forest and are located near the urban centers, along major recreation corridors, and adjacent to popular sightseeing areas. The increasing numbers of people using the forest is changing the character of the recreation setting because increased numbers of visitors are resulting in increased user density within several hotspots. Changes to the technology and



type of vehicles (both mechanized and motorized) are also affecting the recreation setting. Examples of these new technologies include bigger and more advanced Off-Highway Motor Vehicles (OHVs), larger camping vehicles, electric bicycles (e-bikes), and lighter mountain bikes. Paddle sports, including kayaking and stand up paddleboarding, have increased in popularity due to general trends in usage, and in new gear technology and availability.

In contrast to the widespread OHV and campground use, the other forms of recreation in the Forest are relatively unpopular. According to USFS staff, many of the hiking trails within the Forest (especially the more primitive trails) are seldom used by visitors. Some of the reasons for non-use of more primitive trails is the lack of publicity for these areas and reduced maintenance of these areas. If this pattern continues, the Forest will continue to see a widening difference between visitor use on a select few destinations compared to the rest of the Forest.

## Developed Recreation

Developed recreation sites are popular areas for recreation in the Black Hills NF. Recreation sites can be organized into two categories: 1) places where individuals are recreating on-site (e.g., campgrounds, cabins, and picnic areas; and 2) places that are used as “launch points” or “staging areas” for accessing dispersed recreation opportunities (e.g., trailheads, fishing sites, day-use areas, and boat launches).

### *Developed Recreation Opportunities by Geographic Area*

#### *Northern Hills*

The Northern Hills Ranger District is in the northeast section of the Forest. This is located near the cities/towns of Nemo, Deadwood, Belle Fourche, Piedmont, Spearfish, Whitewood, Rochford, Lead, and Sturgis. The Northern Hills is a popular area because of its trail access specifically in the Spearfish area. These trailheads are used to access popular winter recreation trails, and the well-known Centennial Trail ([USDA Forest Service](#)).

The Northern Hills area supports a wide variety of outdoor recreation opportunities including six developed campgrounds, one camping area (designated areas with few facilities), five fishing sites, five interpretive sites, three observation sites, four picnic sites, one swimming site, and sixteen trailheads. In total, developed facilities in this area can support approximately 1,488 recreation visitors at one time (table 2).

**Table 2. Developed recreation sites in the Northern Hills Geographic Area**

<b>Developed Site Type</b>	<b>Total Number of Sites</b>	<b>Capacity (Persons at one time)</b>
Campground	6	590
Camping Area	1	105
Fishing Site	5	60
Interpretive Site	5	29
Observation Site	3	30
Picnic Site	6	120
Swimming Site	1	150
Trailhead	16	404
<b>Total</b>	<b>43</b>	<b>1,488</b>



## Mystic

The Mystic Ranger District represents the central portion of the Forest. It is the closest part of the Forest in relation to Rapid City, SD so it is an area with a high level of accessibility. This area is known for a wide range of recreation opportunities including dispersed recreation, as well as special recreation areas such as Pactola Reservoir and Sheridan Lake ([USDA Forest Service](#)). This area has by far the highest developed facility capacity of the four ranger districts, particularly with respect to campgrounds.

The Mystic Ranger District includes six boating sites, nine campgrounds, two group campgrounds, one day use area, eight fishing sites, six interpretive sites, one interpretive visitor center, one observation site, eight picnic sites, three swimming sites, and twenty-one trailheads. In total, developed facilities in this area can support approximately 5,124 recreation visitors at one time (table 3).

**Table 3. Developed recreation sites in the Mystic Geographic Area**

Developed Site Type	Total Number of Sites	Capacity (Persons at one time)
Boating Site	6	800
Campground	9	1,750
Group Campground	2	330
Day Use Area	1	75
Fishing Site	8	162
Interpretive Site	6	103
Interpretive Visitor Center (Minor)	1	105
Observation Site	1	105
Picnic Site	8	483
Swimming Site	3	845
Trailhead	21	366
<b>Total</b>	<b>65</b>	<b>5,124</b>

## Hell Canyon

The Hell Canyon Ranger District is in the southern third of the Black Hills NF. This district is distinct because it has an active focus on multiple uses including recreation, as well as, timber management, rangeland, fire, fuels, lands, minerals, wildlife, heritage resources, recreation, and wilderness ([USDA Forest Service](#)). In addition, this district contains the only wilderness on the Forest. The combination of its exclusive access to wilderness and its proximity to Custer State Park and Mount Rushmore makes this district particularly popular for hiking and horseback riding users.

The developed recreation opportunities include one boating site, seven campgrounds, one fishing site, one group picnic site, two horse camps, 10 interpretive sites, two lookouts/cabins, one recreation concession site, six picnic sites, and eighteen trailheads. In total, developed facilities in this area can support approximately 1,885 recreation visitors at one time (table 4).

**Table 4. Developed recreation sites in the Hell Canyon Geographic Area**

Developed Site Type	Total Number of Sites	Capacity (Persons at one time)
Boating Site	1	21
Campground	7	692
Fishing Site	1	70
Group Picnic Site	1	21
Horse Camp	2	170
Interpretive Site	10	15
Lookout/Cabin	2	10
Observation Site	2	325
Other Recreation Concession Site	1	80
Picnic Site	6	291
Trailhead	18	190
<b>Total</b>	<b>51</b>	<b>1,885</b>

### *Bearlodge*

Bearlodge Ranger District is a 200,000-acre area in ([USDA Forest Service](#)). This district provides developed recreation opportunities including three campgrounds, one horse camp, three interpretive sites, four picnic sites, one snow park, and eleven trailheads. In total, developed facilities in this area can support approximately 1,030 recreation visitors at one time (table 5).

**Table 5. Developed recreation sites in the Bearlodge Geographic Area**

Developed Site Type	Total Number of Sites	Capacity (Persons at one time)
Campground	3	330
Horse Camp	1	50
Interpretive Site	3	50
Picnic Site	4	210
Snow Park	1	40
Trailhead	11	350
<b>Total</b>	<b>23</b>	<b>1,030</b>

### ***Developed Recreation Incompatibilities***

There are approximately 600 campsites within the Black Hills NF, but there are a variety of camping users that demand varying settings and types of experiences. Campsites are accessed by a variety of user types, including car campers, RV users, equestrians, dispersed backpacking users, and dispersed OHV users ([USDA Forest Service](#)). There are currently two major sources of campsite use incompatibility on the Black Hills NF: 1) a lack camping opportunities that are exclusive to equestrians, and 2) additional and expanded camping opportunities for RV campers (USDA Forest Service 2021).

There is currently approximately 30 sites that can accommodate equestrian users. While these 30 spots could technically meet the demand for most equestrian users, current site availability is not sufficient. Although these sites are equipped with the features needed to support equestrians, they are open to

reservation and use by non-equestrian users as well. This has resulted in equestrian campers competing with other users for a limited number of spots (USDA Forest Service 2021).

RV campers are also experiencing a similar issue. Since RV vehicles are much larger than most vehicles, they are unable to use a typical campsite. RV users are therefore limited to a small number of campsites that can accommodate their needs. In addition, some RV users demand additional resources including electric, water, and sewer capabilities on site (USDA Forest Service 2021). Considering the limited space within the Forest, and the need for additional electric, water, and sewage capabilities, additional RV camping resources may need to be addressed through opportunities outside the Forest including state parks and private facilities.

## **Dispersed Recreation**

The term “dispersed recreation” is used to describe recreation activities that occur outside of developed recreation sites. Dispersed recreation includes all recreation activities other than camping in campgrounds, activities that occur at resorts and similar facilities, and downhill skiing at ski areas. The only operating ski resort in the Black Hills area is Terry Peak Ski Area. As described in the developed recreation section, developed facilities often support dispersed recreation activities.

The Black Hills NF is a popular destination for both motorized and non-motorized recreationists. These activities include hunting, fishing, boating, hiking, cross-country skiing, horseback riding, mountain biking, OHV/motorcycle riding, snowmobiling, wildlife, and scenery viewing, and other activities ([USDA Forest Service](#)).

## **Spring/Summer/Fall Recreation Activities**

Dispersed activities vary depending on the season. Summer is the busiest time of year, with many local visitors using the forest on single day visits, while some are visiting for longer periods. Visitors from out of the area come to sightsee or take a hike, while some plan vacations around the forest and stay in the area for longer periods of time. Most of these visitors are participating in the traditional activities including camping, hiking, scenic viewing, and OHV use; however, newer uses such as mountain biking, utility terrain vehicles (UTVs) riding, and rock climbing are becoming increasingly popular. Rock climbing has become particularly popular at the Wrinkled Rock (located on State Highway 244 adjacent to the west boundary of Mount Rushmore National Memorial) and Sunshine Wall in Spearfish Canyon. Water-based recreation such as boating and fishing occur on the many lakes, streams, and rivers on the Black Hills NF. Other water-based recreation including kayaking and paddleboarding are gaining popularity. Gathering forest products (e.g., collecting firewood, foraging for berries and mushrooms, etc.) and photography are popular, while some of the less common activities include recreational mineral panning, and drawing or painting, among others ([USDA Forest Service 2021](#)).

In the fall trail activities remain popular, but many users also engage in hunting and aspen foliage viewing.

Summer activities generally occur in the snow-free periods on the Forest. According to the 2019 NVUM survey, the most popular activities include hiking/equestrian/bicycling followed by scenic viewing. Relaxing and driving for pleasure are the next most popular activities. Participation rates for these activities are shown in table 6.

**Table 6. Participation in spring/summer/fall dispersed activities by survey respondents, with main activity and participation rates**

[Source: NVUM (2019).]

Activity	Participation (%)
Non-motorized recreation (hiking, equestrian, bicycling)	77.4
Scenic viewing, wildlife viewing, nature study	70.3
Relaxing	58.7
Driving for pleasure (typically on main roads)	46.9
Hunting and fishing	27.1
Boating (motorized, canoe/kayak, rafting, etc.)	16.9
Motorized recreation (mostly on primitive roads and trails)	11.5
Backpacking /primitive camping	5.1
Gathering forest products	4.6

### ***Winter Recreation Activities***

During the winter months snowmobiling, cross-country skiing, snowshoeing, ice skating, and ice fishing are traditional activities that have remained popular. ([USDA Forest Service](#)). Fat biking (i.e., winter biking) and ice climbing are two relatively new recreation opportunities that are becoming increasingly popular. In addition to ice climbing, sport climbing users utilize climbing areas with higher sun exposure like the Sunshine Wall in the Spearfish Canyon.

According to the 2019 NVUM, 14.4 percent of visitors take part in cross-country skiing and other nonmotorized winter activities, while 3.2 percent of visitors take part in snowmobiling and other motorized activities (table 7).

**Table 7. Participation in winter dispersed activities by survey respondents, with main activity and participation rates**

[Source: NVUM (2019).]

Activity	Participation (%)
Cross-country skiing and other non-motorized	14.4
Snowmobile and other motorized	3.2

### ***Dispersed Recreation Incompatibilities***

Dispersed camping is legal in many areas within the Black Hills NF. Restrictions on camping locations pertain mainly to proximity to streams and riparian areas and travel routes. In most situations motor vehicles are limited to a maximum distance of 300 feet from the travel route. At other locations, a shorter travel distance is allowed while some locations prohibit any driving off road. Public compliance with these restrictions can be confusing, especially if it appears that a road exists on the ground and no obvious barricades have been placed. A route used to access a dispersed camping site must appear on the MVUM. Lastly, to be legal, dispersed camping cannot cause resource damage. This requirement is more difficult to define, and therefore is difficult to comply with and enforce ([USDA Forest Service](#)).

Areas that are used continually by foot, vehicle, etc., especially those nondurable areas where soils/vegetation are easily impacted and don't quickly recover, cause situations that are incompatible with protecting the environment and providing for sustainable recreation opportunities ([USDA Forest Service](#)).

## Trails and Travel Management

This section is dedicated to both trails and travel management as it relates to motorized recreation.

### Non-Motorized Trails

The Black Hills NF is home to over 400 miles of non-motorized recreation trails. A system of recreation trails connects multiple geographic areas and communities and showcases the Forest by providing user-friendly access (USDA Forest Service 2018) ([Error! Reference source not found.table 8](#)).

Non-motorized trails feature hiking, equestrian, and mountain bike opportunities. All three use types are allowed on many trails; however, all three uses are not always compatible on the same trail. As a result, users have requested separating user types on some trails. For example, mountain bike-only trails may provide desired experiences for mountain bikers while limiting the interaction with users on foot or horseback. As more people utilize these trails in new ways it will become more difficult to produce desired experiences for each recreation user group on the same trail (USDA Forest Service 2021).

The total number of miles of non-motorized trails, by allowed use, is shown in [table 8table 9](#). Trails are normally designed and managed for a particular use, although design elements may accommodate other uses. Other uses may be allowed on the trails, even if not entirely compatible. For example, a trail designed for biking may also allow for hiking.

**Table 89. Miles of non-motorized trail by allowed use**

Allowed Use Type	Miles
Hiker	35
Hiker/Horse	295
Hiker/Horse/Bike	52
<b>Total</b>	<b>382</b>

Two new forms of recreation that are gaining popularity include trail running and e-biking. These activities may warrant further segregation of allowed use depending on the trail and user preferences. E-bikes are classified as motorized transportation under the agency's Travel Management Directives.

Non-motorized users seek a wide variety of experiences in various settings and terrains. Some seek more casual, relaxed experiences, while others seek higher adrenaline or demanding experiences. Trail management seeks to provide a variety of experiences while addressing the qualities desired by the wide range of users (USDA Forest Service 2018).

### Motorized Trails and Primitive Roads

The Black Hills is also known for its trail opportunities for OHV users. According to the motor vehicle use maps (MVUM), the Forest provides over 3,700 miles of roads and trails designated for public use ([table 9table 10](#)). Please note these mileages may vary from similar estimates provided in the Infrastructure Assessment, which uses a report generated from a dataset a few years older. The Infrastructure Assessment also includes categories of roads where only administrative access, or in some

cases, permittee access is allowed. This assessment focuses more on publicly accessible roads and trails. OHV travel is allowed only on designated trails and roads. Approximately 700 miles of designated motorized trails are available within the Forest. Many of the trails are connected by nearly 500 miles of “Roads Open to All Vehicles,” which together, provide abundant opportunities for planning OHV outings of various degrees of difficulty and lengths, including loop route options. There are currently 21 designated motorized trailheads on the Forest ([USDA Forest Service](#)).

**Table 940. Roads and trails by motorized vehicle class**

Road or Trail	Trail/Road Type	Miles
Roads	Roads Open to All Vehicles (Seasonal)	133
	Roads Open to all Vehicles (Yearlong)	392
	Roads Open to Highway Vehicles Only (Seasonal)	861
	Roads Open to Highway Vehicles Only (Yearlong)	1,647
	<b>Total</b>	<b>3,033</b>
Motorized Trails	Special Designation (Seasonal)	167
	Special Designation (Yearlong)	206
	Trails Open to All Vehicles (Seasonal)	91
	Trails Open to All Vehicles (Yearlong)	61
	Trails Open to Motorcycles (Seasonal)	45
	Trails Open to Motorcycles (Yearlong)	59
	Trails Open to Vehicles 50" or Less in Width (Seasonal)	70
	<b>Total</b>	<b>700</b>
<b>Grand Total</b>		<b>3,733</b>

Vehicles are allowed to travel 300 feet from a designated road for dispersed camping on specifically designated routes. These routes are specified in the MVUM. As a result of these camping opportunities, most dispersed camping in the Forest occurs off primitive roads. ([USDA Forest Service](#)).

In the past, 4WD and high-clearance vehicles were the most popular method of OHV travel on the forest in backcountry settings; however, in recent years, new styles of motorized recreation vehicles have become more popular. All-terrain vehicle (ATV) use has increased and remains a popular use, but utility terrain vehicles (UTV), or side-by-sides, are gaining in popularity and appear to be replacing some ATV and 4WD use. UTVs are different than ATVs in that they are generally larger, faster, and can seat more riders than ATVs. ATVs generally exhibit three features: a saddle seat position, handlebar steering, and the ability to maneuver through a variety of terrain conditions. Motorcycle use appears to be increasing, but the Forest has not seen as dramatic an increase in this use as with ATVs and UTVs. UTVs currently require roads for travel, as they are too wide for standard trails, including standard ATV trails. ATV riding is frequently a more action-oriented pursuit, while UTVs are a more comfortable means of accessing areas of the forest (USDA Forest Service 2021).

### **Unauthorized Trails**

It is important to note that there are more trails in the Black Hills NF than what is mapped and managed by the Forest Service. Many user-created, unauthorized trails exist within the Forest. Most of these trails have been created by the mountain biking community specifically for mountain bike use to expand the number and diversity of mountain biking opportunities in the Forest. These trails are being constructed without the authorization and management by the Forest Service, which has made these trails more

susceptible to erosion, destructive of wildlife habitat, and user group conflicts. There is currently a lack of information concerning the condition of these trails because many remain unmapped (USDA Forest Service 2021).

### **Trail Incompatibilities**

Since trails are used by many different types of recreationists, both motorized and nonmotorized, areas with multiple user types can become contentious. For example, many hikers prefer a relatively easy hike close to major roads, while also getting away from the impacts of motorized ATV and dirt bike users. Similarly, equestrians usually prefer to experience a trail that has minimal impact from mountain bike use (USDA Forest Service 2021).

Another source of incompatibility on trails relates to user-created trails. In the Black Hills NF, many mountain biking trails have been constructed without the authorization of the Forest Service in order to meet user preferences (e.g., increased trail difficulty options, increased connectivity of trail systems, and increased length of trails). These trails are susceptible to erosion, may cause soil and water damage, can affect wildlife habitat, and can cause conflict among user groups due to changed settings.

Like the conflicts between motorized and non-motorized user groups, there are also conflicts between mechanized and nonmechanized user groups. When a trail allows multiple uses, including mountain bikes and/or other forms of mechanized recreation, conflicts may arise between user groups. The speed of a given activity may be an issue on certain trails, such as a trail being shared by mountain bikers and hikers. If the nature and contour of the trail is steep and winding, this can create safety concerns when different users are sharing the trail.

### **Privately Provided Recreation Opportunities on the Black Hills NF**

Private businesses provide numerous recreation opportunities on the Forest, enhancing the Black Hills NF's recreation programs and providing visitors experiences that may otherwise not be available. These operations are administered by special use authorizations (permits). The Forest permits a variety of privately provided recreation opportunities, from outfitter-guide services to recreation events to resorts and shelters. The number and type of permits for 2021 is shown in [table 10](#)~~table 11~~.



**Table 1041. Private recreation types by ranger district, 2021**

	Northern Hills	Mystic	Hell Canyon	Bearlodge	Total
Recreation Residence*	40	64	52	0	156
Outfitting and Guiding Service	18	0	8	3	29
Snow Play	3	0	0	0	3
Golf Course	1	0	0	0	1
Cave/Cavern	1	0	0	0	1
Recreation Event	18	0	3	1	22
Non-Commercial Group Use	2	0	0	0	2
Privately Owned Campground	0	1	1	0	2
Marina	0	2	0	0	2
Concession Campground	0	1	0	0	1
Park or Playground	0	0	1	0	1

\* Recreation Residences are a part of the U.S. Forest Service *Recreation Residence Program* (RRP) "Cabin in the Woods" program established by Congress in 1915 to facilitate family recreation experiences on our national forests ([USDA Forest Service](#)).

### ***Outfitters and Guides***

Across the Forest there has been an increase in requests for outfitter and guide permits. Outfitting and guiding occurs mostly within the Northern Hills, with some engagement in Hell Canyon and Bearlodge Districts ([table 10table 11](#)). These opportunities include hunting, fly fishing, climbing, hiking, biking, camping, stand up paddleboarding, OHV tours, survival skills, snowshoeing, cross-country skiing.

### ***Recreation Events***

Recreation events bring together groups of recreationists to participate in shared activities, such as OHV rides like the Black Hills Cruiser Classic, trail running events like the Black Hills 100, or mountain biking events like the Bearlodge Mtn Classic. Generally, these events occur on existing infrastructure (roads or trails) or in areas that are designated for the event. These events are becoming increasingly popular in the Forest.

Local communities tend to support these events due to the number of participants and spectators that come to the community. Capacity has become an issue in some areas where events take place nearly every summer weekend and can conflict with non-affiliated recreationists and with outfitter-guide operations (USDA Forest Service 2021).

### ***Privately Operated Facilities***

The Black Hills NF houses a variety of private operated facilities including two campgrounds, two marinas, one park, one golf course, three snow recreation facilities, and 156 residences. Recreation residences (privately-owned homes located on the National Forest land) are the most popular form of private recreation type within the Forest. These residences are personal property of the owner who pays an annual fee for the use of the National Forest land the cabin sits on. Renewable Special Uses Permits are issued for 20 years at a time. Recreation residences are managed under a separate decision process outside of the LRMP revision.

## **Recreation Opportunities on Other Federal and State or Local Lands**

While the Black Hills NF provides a wide range of recreation opportunities within its boundaries, the broader landscape provides additional recreation opportunities. Within 100 miles of the Black Hills NF there are two ski resorts, two state parks, one state recreation area, two national parks, two national monuments, one national memorial, one national grassland, and many different private enterprises that offer a variety of recreational opportunities.

Mount Rushmore National Memorial is one of the most popular destinations within the surrounding area. While most visitors travel to Mount Rushmore to admire the enormous, sculpted faces of George Washington, Thomas Jefferson, Theodore Roosevelt, and Abraham Lincoln, there are numerous other ways to experience this site. Other recreation opportunities include environmental and historical education programs, hiking along the Presidential Trail, and taking part in the Junior Ranger Program ([USDI Park Service](#)).

Crazy Horse Memorial is another popular destination located on private land within the Forest boundary. The memorial serves as a site for visitors to engage in educational and cultural programs designed to encourage harmony and reconciliation among all people and nations ([Crazy Horse Memorial](#)).

Bear Butte State Park is located northeast of the Forest, just outside of the city of Sturgis. The park provides a variety of recreation opportunities in the area including boating, fishing, hiking and walking, horseback riding, museum/visitor center and picnicking ([South Dakota Department of Game, Fish and Parks](#)).

Custer State Park, the most visited State Park in all of South Dakota, is adjacent to Black Hills NF. There are several outdoor recreation opportunities including camping, fishing, hunting, biking (road/gravel/mountain), birdwatching, wildlife viewing, boating, historic site viewing, horseback riding, interpretive engagement, picnicking, swimming, disc golf, geocaching, paddle sports, snowshoeing, snowmobiling, and stargazing ([South Dakota Game, Fish, and Parks](#)).

Devils Tower National Monument is to the west of Black Hills NF in Wyoming. Devils Tower is a popular destination for its scenic qualities, climbing and hiking opportunities, and its cultural interpretation experiences.

Wind Cave National Park is located adjacent to Black Hills NF in the southwest corner of South Dakota. The area is popular for cave sightseeing, hiking, wildlife viewing (bison, elk, etc.), dispersed camping, biking (road/gravel), geology driving tour, birdwatching, picnicking, and horseback riding ([National Park Service](#)).

Thunder Basin National Grassland is located in Wyoming and provides opportunities for recreation, including hiking, sightseeing, hunting, fishing, and dispersed camping ([USDA Forest Service](#)).

Keyhole State Park is a popular Wyoming State Park that provides a wide range of recreational opportunities including boating, RV camping, cabin camping, fishing, geocaching, picnicking, hiking, horseback riding, hunting, cross-country skiing, snowshoeing, ice skating, and snowmobiling ([Wyoming State Parks](#)).

Badlands National Park is a one-hour drive to the east of Black Hills NF. The popular National Park known as the “Land of Stone and Light” offers visitors the opportunity for stargazing, wildlife viewing, scenic driving, environmental/cultural interpretation, camping, dispersed camping, horseback riding, and biking (road/gravel/mountain) ([National Park Service](#)).

Jewel Cave National Monument is a short drive from the Black Hills NF, and it allows visitors to experience the third longest cave in the world. Guided cave tours, hiking trails, historic sites, wildflower fields, and wildlife viewing areas make this a popular area for visitors throughout all seasons of the year ([National Park Service](#)).

Fort Meade Recreation Area is a Bureau of Land Management (BLM) managed area located adjacent to the northeast corner of Black Hills NF in South Dakota. The mixture of grasslands and forests provides cultural, historic, recreational, and wildlife values. Opportunities for recreation include historic interpretive sites, hiking, camping, picnicking, fishing, horseback riding, and horse camping ([BLM](#)).

## **National Recreation Demand and Preferences**

### ***National Participation Trends***

In 2020, 53 percent of Americans ages 6 and over participated in outdoor recreation at least once. This is the highest participation rate on record ([Outdoor Industry Association 2021](#)). A general trend within the past two decades has been a shift towards “nature-based recreation.” “Nature-based recreation” is broadly defined as outdoor activities in natural settings or otherwise involving in some way elements of nature. This general trend is resulting in Americans choosing to participate in a different mix of activities compared to traditional activities based around human-built environments. In the US, the most popular outdoor activities by participation rate are running (63.8 million participants), hiking (57.8 participants), fishing (54.7 million participants), biking (52.7 million participants, and camping (47.9 million participants) ([Outdoor Industry Association 2021](#)).

### ***Emerging Trends in Recreation***

Advancements in technology and transportation are leading Americans to expand their outdoor experiences—allowing them to go further and faster than ever before. For example, the expanding technology related to snowmobiles is advancing the capabilities and extending the range of these machines.

COVID-19 altered recreation trends in 2020, and some of these trends may continue and become long-term trends. For example, some recreation activities, like camping at developed sites, became very popular. With a rise in demand for these developed sites, visitors have been planning and reserving campgrounds much earlier than they ever have in the past. In this way, COVID-19 has focused a larger emphasis on reserving recreation opportunities in advance.

The internet, and more specifically social media, has increased access to information about recreation opportunities. The growth of social media is influencing recreation in the Black Hills NF because it highlights specific campgrounds and trails. Subsequently, some of these sites experience exponential increases in visitation, resulting in both positive and negative impacts on the forest (USDA Forest Service 2021). On one hand it has created a more inclusive forest that has brought new visitors to experience the Black Hills NF. On the other hand, social media has created an influx of visitors that has increased visitor demands on resources and resulted in overcrowding and increased vandalism, graffiti, human waste, excessive noise, and litter at some locations. These impacts may continue to occur before the Forest can properly respond and adjust management practices to achieve sustainable use. While certain sites and trails have experienced large increases in visitor numbers, many other recreational opportunities throughout the park remain relatively unaffected by social media.

The internet has also changed the way in which visitors are recreating. For example, geo-caching is a newer high-tech adventure game that is increasing in popularity. Geo-caching merges outdoor recreation with internet use—creating opportunities for people to use their mobile devices to adventure across the landscape (USDA Forest Service 2021).

Other emerging trends include mountain biking, fat biking (snow biking), electric biking, climbing, ice climbing, and recreational drone usage. These uses will likely continue to gain in popularity.

## Black Hills NF Recreation Demand and Preferences

### Visitation

The Black Hills NF is becoming an increasingly popular place to travel and recreate. According to the latest NVUM survey, the Forest experienced the highest level of annual visits in 2019 with approximately 1,071,000 visitors. Many more visitors travel to other attractions in the area. Observations and written reports indicate an extraordinary increase in visitation in 2020 in part due to the COVID-19 pandemic ([table 11](#)[table 12](#)). These recent trends are not yet evaluated within the NVUM survey as the survey is only conducted every five years.

**Table 1142. Annual site visits in the Black Hills NF by year**

[Source: [USDA Forest Service 2019, 2014, 2009.](#)]

Year	Annual Site Visits
2009	1,057,000
2014	1,002,000
2019	1,071,000

### Visitor Satisfaction

Visitor satisfaction results in the 2019 NVUM surveys showed that more than 80 percent of the people who visited the Black Hills NF were “very satisfied” with the overall quality of their recreation experience ([table 12](#)[table 13](#)). Less than 2 percent of visitors expressed any level of dissatisfaction. NVUM results for any single year may under- or over-represent some groups of visitors. Unusual weather patterns, major fire closures, or unanticipated pulses or lapses in visitation are not incorporated into the sampling framework (USDA Forest Service 2019).

**Table 1243. Percentage of national forest visits by overall satisfaction rating**

Level of Satisfaction	Percentage of Visitors (%)
Very Satisfied	82.7
Somewhat Satisfied	15.6
Neither Satisfied nor Dissatisfied	1.3
Somewhat Dissatisfied	0.4
Very Dissatisfied	0.0

According to the NVUM survey the satisfaction of developed sites, undeveloped areas, and designated wilderness have changed between surveys in 2014 and 2019.

From 2014 to 2019, the satisfaction survey revealed a 0.55 percent increase in satisfaction for developed sites ([table 13](#)[table 14](#)). This is a promising statistic, but an interesting one as well. Despite the public’s perception showing that developed sites are in good condition, Forest Service officials admit that developed recreation sites are not receiving enough upkeep to maintain satisfactory conditions. Forest Service officials believe that this is happening because the public perception of the condition of these sites is being based off the select few highly used recreation sites. Popular sites (including the Sylvan Lake Trailhead and the Cathedral Spires Trailhead) are also the sites where the Black Hills NF can funnel most of its time and resources to maintain satisfactory conditions. While these areas may be in good condition,

and may be producing satisfied visitors, this subset of recreation sites is not an accurate representative sample for the Forest as a whole.

**Table 1314. National forest visitor satisfaction – developed sites**

Year	Satisfaction Element	Satisfied Survey Respondents (%)
2019	Developed Facilities	93.2
	Access	91.4
	Service	80.0
	Feeling of Safety	100.0
	<b>Average</b>	<b>91.2</b>
2014	Developed Facilities	92.4
	Access	94.0
	Service	79.2
	Feeling of Safety	98.0
	<b>Average</b>	<b>90.9</b>

From 2014 to 2019, the satisfaction survey revealed a 2.07 percent decrease in satisfaction for undeveloped areas (GFAs) (table 14table 15). This drop in satisfaction reveals that the GFAs may not be managed in a sustainable way. Forest management may need to focus more heavily on increasing the visitor satisfaction of GFAs.

**Table 1415. National forest visitor satisfaction – undeveloped areas**

Year	Satisfaction Element	Satisfied Survey Respondents (%)
2019	Developed Facilities	85.0
	Access	81.1
	Service	68.6
	Feeling of Safety	97.4
	<b>Average</b>	<b>83.0</b>
2014	Developed Facilities	81.0
	Access	84.4
	Service	78.4
	Feeling of Safety	96.6
	<b>Average</b>	<b>85.1</b>

From 2014 to 2019, the satisfaction survey revealed a 2.13 percent decrease in satisfaction for designated wilderness areas (table 15table 16).

**Table 1516. National forest visitor satisfaction – designated wilderness**

Year	Satisfaction Element	Satisfied Survey Respondents (%)
2019	Developed Facilities	94.4
	Access	92.3
	Service	93.0

Year	Satisfaction Element	Satisfied Survey Respondents (%)
	Feeling of Safety	97.7
	<b>Average</b>	<b>94.4</b>
2014	Developed Facilities	100.0
	Access	98.8
	Service	87.1
	Feeling of Safety	100.0
	<b>Average</b>	<b>96.5</b>

## ***Preferences By Activity***

### *RV Camping*

The Black Hills NF is continuing to see an increasing number of visitors that are accessing the Forest with larger recreation vehicles (RVs). There is currently insufficient camping sites that can accommodate these larger vehicles (USDA Forest Service 2021). An increase in RV camping opportunities will increase capacity for this user group, but it also may detract from the more primitive experience that other campers demand. For example, increased light sources from RVs with electricity access, increased noise from power generators, and other common human impacts that come from the use of RVs may diminish other camp user’s experiences.

### *Equestrian Camping*

The equestrian community is also demanding more camping opportunities that fit their needs. These needs include camping areas that are exclusive to equestrian users. Among other things, these sites need more corrals that provide enough space to comfortably accommodate multiple horses on the site, including those with a range of personality types (USDA Forest Service 2021). The Sundance Campground is an example of a site where equestrian users’ preferences are not being met. While equestrian-exclusive camping opportunities will provide more complete resources for this user group, the development of these sites could decrease camping opportunities for non-equestrian users.

### *Mountain Biking*

The mountain biking community is demanding more mountain biking trails, and resources to help maintain the quality of trails. Meeting the demands of mountain biking users is going to require increased collaboration between Forest Service employees and the mountain biking community to help establish a clear inventory of mountain biking routes, and to support effective management (USDA Forest Service 2021).

### *E-Biking*

E-biking is a recreation user group that is establishing itself in the space between mountain bikes and OHVs. The popularity of e-bikes has only recently gained traction, so the public is demanding more resources and opportunities. The Forest Service currently allows e-bikes on all roads that are already open to motorized vehicles, as well as on motorized trails. In March 2022, the Forest Service updated directives to establish criteria for considering e-bike use in areas that are not currently designated for motor vehicle use. Currently, the only non-motorized trails open to e-biking are the Mickelson Trail and portions of the Centennial Trail between Pilot Knob and Dalton trailheads. Increasing use of e-bikes may require additional trails for this user group. Additionally, e-bikes may need to be identified and managed by

different classes because their wide-ranging differences (i.e., speed and level of pedal assistance) warrant different usage for different areas.

### *Motorized Vehicles*

The motorized vehicle community is continuing to demand trails that allow for wider vehicles. Currently, all motorized vehicle trails have a 50-inch width restriction, but newer vehicles are pushing past the traditional widths. While the 50-inch trail width has been satisfactory over many years, user groups are continuing to demand trails that allow them to use the newer and larger vehicles. The current width restrictions in the Forest are 50 inches in Wyoming, and 62 inches in South Dakota.

Motorized users are also demanding that trails better accommodate all types of motorized use. These include higher density or stacked motorized routes, challenge routes, and looped routes (USDA Forest Service 2021).

### *Dispersed Campers*

While many groups continue to demand more development and resources to meet their needs, there remains a community of users that demands more primitive uses. These groups are demanding more dispersed camping opportunities and areas with less facility development. Historically, demands for more primitive uses have been met by the Black Elk Wilderness, but some users have expressed a need for this type of experience in other areas of the forest as well (USDA Forest Service 2021). Unlike many other National Forests, open fires are not allowed outside of developed recreation sites in the Black Hills NF. This regulation helps mitigate wildfire risk, but it also poses limitations on dispersed camping users.

### *Interpretation and Visitor Education Opportunities*

The public is demanding greater engagement with the forest through interpretive opportunities and information centers. These opportunities include educational signage, visitor center opportunities, ranger talks and hikes, and other engagement activities. COVID-19 has limited the amount of public engagement since 2020, so the Black Hills NF will need to reconsider the public's needs and preferences when these restrictions have diminished (USDA Forest Service 2021).

### *Seasonal Changes*

During the winter season, new trail conflicts form between user groups. For example, snowshoe hikers and cross-country skiers have conflicting interests on groomed trails because snowshoes impact the smooth trail surface skiers prefer. Current management direction includes providing interpretation, information, and environmental education as an important part of outdoor recreation ([USDA Forest Service, 2006](#)). This direction is attempting to improve the shared use between user groups snowshoe hikers and cross-country skiers.

Fat biking (i.e., winter biking) is a new user group that is increasing in popularity. This new activity provides additional complications in the balancing of winter recreation settings. Fat bikers also utilize cross-country ski trails, but they do so at a faster speed and over longer distances than most snowshoe and cross-country skiing users. Currently, fat bike routes are authorized on select trails within the Northern Hills District and the Bearlodge District with a special use permit. These trails include Iron Creek/Red Lake Trail, Higgins Gulch, and Big Hill in the Northern Hills District, and Bearlodge Trail and Fish Canyon Trail in the Bearlodge District ([USDA Forest Service](#)).

Conflicts and incompatibilities between user groups will continue and possibly increase as climate change shifts seasonal weather trends and alters recreational use patterns both geographically and temporally. As



outlined in the Black Hills NF Climate Change Vulnerability Assessment, a decrease in snowpack and warmer temperatures will likely result in less winter recreation and more warm-weather recreation activities.

### ***Extractive Uses***

There is concern about the interaction of recreation use and interactions with other activities on the Black Hills NF such as grazing, timber harvest, and mineral extraction activities. There may need to be increased levels of communication between use groups to promote coordination and collaboration.

According to the Black Hills Stakeholder Assessment report, most participants in the survey report identified timber harvest as a priority issue. Depending on their personal stance, they either identified a trend of harvesting too much timber, not harvesting enough timber, or needing to reevaluate timber harvest to find a more suitable compromise ([USDA Forest Service 2021](#)). Timber harvest relates to recreation because of the values related to scenery, wildlife, and forest related recreational opportunities that may be altered.

### ***Sacred Site Access***

The Black Hills NF is on sacred grounds to the Cheyenne, Arapaho, Mandan, Hidatsa, Arikara, and Eastern Shoshone people. The Crow, Kiowa, Kiowa-Apache, Comanche, and Ute peoples also consider the Black Hills culturally important. Areas including Black Elk Peak (formerly Harney Peak) and Inyan Kara are two of the many American Indian sacred sites. These areas are also hotspots for visitors looking for hiking, climbing, and scenic recreation opportunities.

Balancing recreational opportunities with sacred site ceremonies is a point of contention. According to the Black Hills Stakeholder Assessment Report (2021), tribal members are very concerned about access to sacred sites for ceremonies, and for cultural reasons (e.g., collecting of medicinal plants). This is both positive (allowing some tribal members to have motorized access) and negative (allowing non-tribal members to access sites or disrupt ceremonies). More information concerning sacred sites can be found in the *Cultural and Historic Resources Planning Assessment*.

### **Connecting People with Nature**

The Forest is a valuable place for facilitating a connection between visitors and nature. When visitors come to the Black Hills, there is a natural connection to this place because of its unique beauty and recreation opportunities.

The Black Hills NF utilizes several different tools to help further engage visitors with nature. Resources, including environmental education, interpretation, stewardship, volunteering, and partnership programs, are used to help to facilitate more connections to nature and deeper connections to nature. The Black Hills NF has a long history of providing education and interpretation opportunities related to natural and cultural resource learning opportunities. One of the unique natural and cultural education opportunities the Black Hills NF offers are “Moon Walks.” Moon Walks are interpretive walks/hikes that take place during the summer months. These tours are led by local specialists and cover a variety of seasonally appropriate natural resource topics and related cultural resource topics (USDA Forest Service 2021). The Black Hills NF also utilizes outdoor displays and interpretive signage to help guide, educate, and inspire visitors during their time in the Forest.

Currently the Black Hills NF does not have the fiscal capability of meeting the rising number of Forest visitors and providing the necessary level of amenities and resources. One example of a failure to meet the rising demand for Black Hills NF visitors is the closure of the Pactola Visitor Center (USDA Forest Service 2021). The Pactola Visitors Center has been closed since the 2019 season. The Visitor Center

remained closed through 2020 due to COVID-19, and it has remained closed since then due to limited funding (USDA Forest Service 2021). The Pactola Visitor Center formerly acted as a hub for the one million vehicles that pass by the center each year. The center acted as a resource for gaining information about the Forest, how to maximize the visitor’s experience, and how to interact with the resources respectively and responsibly.

In the future there also needs to be more opportunities for visitors to access and connect with more remote areas of the Forest. This will help unlock the potential of the Forest and spread usage more evenly throughout the region. This can be facilitated through modern methods of connectivity that attract visitors and provide the necessary resources to connect them to new areas.

## Inclusivity and Diversity

Social sustainability is a key component of the future sustainability of recreation in the Black Hills NF. To promote more inclusive Forest recreation opportunities, future management needs to be adjusted to help engage minority groups and low-income families.

### Minorities

The 2019 NVUM shows a wide disparity in the use of the Forest by different racial and ethnic groups. According to the 2019 NVUM survey, 94.8 percent of visitors to the forest are white. The next most frequent visitor race/ethnicity was marked as American Indian/Alaskan Native with 3.6 percent visitation. Hispanic/Latino visitation is 3.0 percent and Asian visitors make up 2.4 percent. Black /African American visitors stand out as being especially underrepresented in the Black Hills NF as the survey concluded that they only represented 0.1 percent of visitors (table 16table 17).

**Table 1617. Percentage of national forest visits by race**

[A national forest visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period. A national forest visit can be composed of multiple site visits.]

Race / Ethnicity <sup>1</sup>	Survey Respondents <sup>2</sup>	National Forest Visits (%) <sup>3, 4</sup>
American Indian / Alaskan Native	20	3.6
Asian	8	2.4
Black / African American	2	0.1
Hawaiian / Pacific Islander	1	0.0
White	684	94.8
Hispanic / Latino	26	3.0
<b>Total</b>	<b>715</b>	<b>100.9</b>

1 - Race and ethnicity were asked as two separate questions.

2 - Non-respondents to race/ethnicity questions were excluded from analysis.

3 - Respondents could choose more than one racial group, so the total may be more than 100 percent.

4 - Calculations are computed using weights that expand the sample of individuals to the population of national forest visits.

There are a variety of actions the forest can take to create a more inclusive community that allows minority groups to feel comfortable in the Black Hills NF. These steps, which include administrative decisions that are not all guided specifically by the forest plan, involve hiring more racially diverse staff that hold positions of power, basing recreation programs on topics that are relevant to the environments and cultures of minority groups, building relationships with communities of interest, partnering with

diverse community organizations regarding inclusion and diversity, providing recreation opportunities that suit the needs of different cultural preferences (e.g., providing areas of communal shared experiences for Latino users), providing transportation arrangements from surrounding communities, and engaging communities via media communications. (Sharik et al., 2015; Roberts, 2015; Brehem, 2007; Burnes and Graefe, 2007).

The United States is on track to become a majority-minority country by 2044. In addition, there is a disproportionate utilization of recreation resources on US Forest Service lands that is leading to a large inequity gap (approximately -23.8 percent) (Flores et al., 2018). It is becoming increasingly important to incorporate and engage minority communities in the use of these lands. Not acting on these needs would alienate these recreation users, and would subsequently result in a loss to visitors, potential visitors, and to the US Forest Service.

### ***Low Income Families***

According to the 2019 NVUM, nearly 60 percent of visitors have an income between \$25,000 to \$74,999. Approximately 20 percent of visitors have an income above this amount and 1.2 percent of visitors have an income below that amount.

Parks and public lands like the Black Hills NF belong to everyone, but opportunities to use the Forest are not currently equitable for all. National studies have determined that lower-income households feel more constrained for the following reasons: don't have enough money, health reasons, inadequate transport, no one to do activities with, feel afraid in forests, pollution problems, outdoor pests, feel unwelcome or uncomfortable, can't understand the language, have a physically limiting condition, and/or a household member has a disability (Cordell, 2012).

### ***Native American Tribes***

The Black Hills have been inhabited by indigenous peoples for more than 15,000 years and possibly longer. The Lakota and Dakota currently hold treaty rights to the area of the Black Hills NF, but many other tribes have developed sacred connections to the land.

Today, these tribes still have a connection to the Black Hills region, but not many Native Americans visit Black Hills NF. According to the 2019 NVUM, American Indian/Alaskan Native visitors only make up 3.6 percent of visitors to the Forest.

Researchers are beginning to realize the importance of including a variety of Native American perspectives when developing policy that is intended to uphold sustainability. Given the connection these tribes have developed with the Black Hills, engaging these communities and integrating Indigenous knowledge into the management of the Forest is necessary for achieving sustainability goals.

### ***Barriers to Participation***

As the Black Hills NF seeks to improve inclusivity and diversity, the Forest will need to recognize the current barriers to participation. Constraints to outdoor recreation within South Dakota are summarized in [table 17](#)~~table 18~~. This information is provided by South Dakota's Statewide Comprehensive Outdoor Recreation Plan (SCORP) (South Dakota Game, Fish and Parks, 2018).

More than 7 percent of survey respondents do not feel welcome, more than 10 percent of survey respondents are deterred by lack of information, more than 10 percent of survey respondents feel that the facility they want doesn't exist in parks, 30 percent of survey respondents say that parks and recreation areas are too crowded, almost 4 percent of survey respondents say that parks are dirty or poorly

maintained, and approximately 1 percent of survey respondents say that there is a lack of transportation to parks.

**Table 1748. Summary of constraints in outdoor recreation**

Constraint	Entirely Disagree	Disagree	Neutral	Agree	Entirely Agree	Participants that Agree with the Constraint
Don't feel welcome	44.13%	32.69%	15.90%	5.62%	1.66%	<b>6.92 %</b>
Lack of information	32.72%	32.76%	23.94%	9.67%	0.89%	<b>10.56%</b>
The facility I want doesn't exist in parks	24.91%	34.81%	30.10%	6.99%	3.19%	<b>10.18%</b>
Parks and recreation areas are too crowded	12.57%	25.92%	31.49%	23.47%	6.55%	<b>27.1%</b>
Nearby parks are dirty or poorly maintained	36.43%	41.66%	18.28%	2.77%	0.86%	<b>3.63%</b>
Lack of transportation to parks	48.56%	38.18%	12.25%	0.77%	0.24%	<b>1.01%</b>

## Scenic Character

Scenic integrity is the degree to which a landscape is visually perceived to be complete. Higher scenic integrity ratings are generally applied to areas with less visual evidence of human activities, but human alterations may not reduce scenic integrity if they have become accepted over time as positive landscape character values ([USDA Forest Service 2017](#)).

### Existing Condition of Scenic Character

Consisting of 1.2 million acres of forested hills and mountains, the Black Hills rise from the adjacent grasslands into a ponderosa pine forest (i.e., the “Island in the Plains”) ([USDA Forest Service](#)). This scenery is what brings many visitors to the area. In fact, according to the 2019 NVUM, other than non-motorized recreation, scenic viewing is the most popular form of recreation in the Forest.

Since the last forest plan the Black Hills NF has become less densely forested, but it has become more densely forested historically. This trend is attributed to fire impacts and the mountain pine beetle epidemic. The current mountain pine beetle epidemic has affected more than 430,000 acres in the Black Hills NF area of South Dakota and Wyoming since 1996 ([USDA Forest Service](#)). The epidemic affected a large portion of the Forest on the South Dakota side (figure 1). The vegetation killed by pine beetles also fuels the opportunity for forest fires. Between the beetle kill and forest fires, much of the pine forest in this area now has an open canopy, with fewer live, mature trees ([USDA Forest Service 2018](#)). For more information regarding the impact of the mountain pine beetle, reference the Forest Ecosystems and Insects, Diseases and Invasive Species assessments.

Management practices have also contributed to the change in the landscape as the Forest Service seeks to maintain resilient forests—mitigating the impacts of wildfires and insect epidemics and maintain the scenic character of the Forest. Many residents and landowners around Black Hills NF are concerned with management of National Forest System (NFS) lands. Much of the project area is wildland-urban interface due to interspersed NFS and private lands. Since NFS lands are visible from many homes within the project area boundary and from adjacent communities, the public becomes very engaged in this topic ([USDA Forest Service 2017](#)).

Scenic integrity objectives (SIO) represent desired conditions for the visual landscape. SIO is defined as a combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place (Brunswick 2018). See Map 2 in Appendix A.

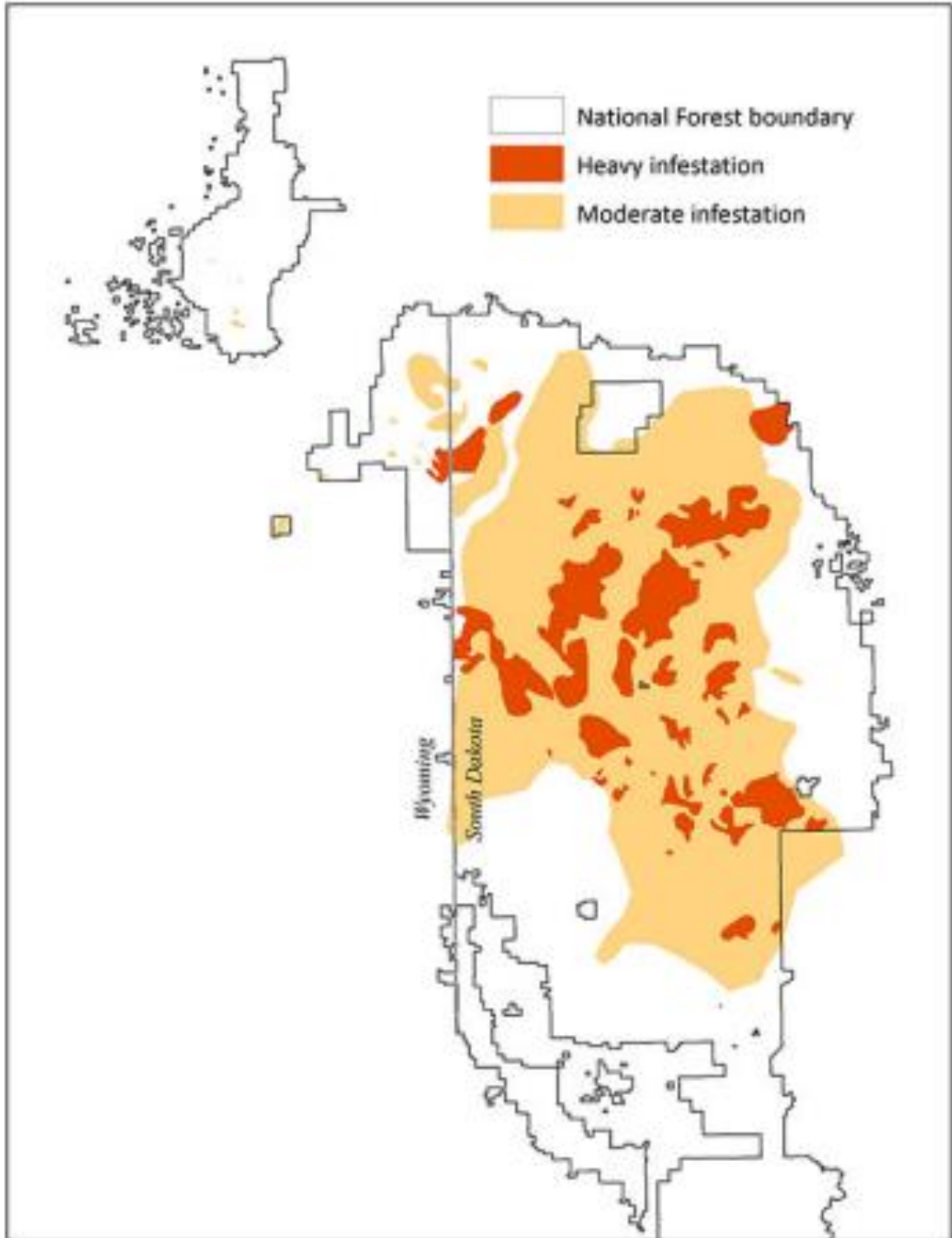
Approximately 43 percent of the Black Hills NF is made up of “low” scenic value, while approximately 14 percent is considered to have “high” scenic value. A large portion of the forest (approximately 41 percent) is considered to have “moderate” scenic integrity. Less than 2 percent of the Forest is identified as having either “very high” or “very low” scenic integrity ([table 18table-19](#)).

**Table 1819. Scenic integrity objective, by acres**

[8,628.62 acres of land (0.69% of the total acreage) is not represented in this table because these lands are not Forest land.]

Scenic Integrity Objective Level	Total (acres)	Percent of Total Acreage (%)
High	172,732	14
Low	539,854	43
Moderate	508,005	41
Very High	14,834	1
Very Low	4,484	<1
<b>Total</b>	<b>1,248,539</b>	<b>100</b>

A large portion of the Forest has experienced the mountain pine beetle infestation in between 1997 and 2015 (figure 1). Considering the significant overlap between pine beetle infestation (figure 1) and high levels of scenic integrity (Appendix A, Map 2), the Forest has subsequently experienced a change in scenic character during this period.



(Source: USDA Forest Service 2017).

**Figure 1. General areas of mountain pine beetle infestation, 1997-2015**



## **Current Forest Plan and its Context within the Broader Landscape**

The current forest plan states that human activities should not be “visually evident” in areas with high scenic integrity. Due to the long history of mining, timber harvest, and other actions on the Black Hills NF, as well as development of private lands within the Black Hills NF, the existing landscape character in many areas includes visual evidence of human activities. The degree to which proposed activities may alter scenic integrity should be interpreted in this context ([USDA Forest Service 2017](#)).

The Black Hills NF strives to maintain the integrity of the scenic character of the Forest by managing the forest in a way that mimics natural patterns in the landscape. This is accomplished by avoiding straight edges to timber cutting boundaries, avoiding cutting boundaries that run straight up the nose of a ridge, avoiding cutting units that are geometrically shaped, and avoiding earthmoving activities that leave ‘raw’ un-vegetated landforms (i.e. – material sources, etc.) in the landscape ([USDA Forest Service 2006](#), USDA Forest Service 2021).

Management is also geared to avoid placing above ground utilities (powerlines, cell towers, etc.) in scenic corridors (USDA Forest Service 2021). When incorporating human-built features into the landscape, management focuses on designing structures that blend in with the landscape by strategically placing these features in areas where landforms reduce their visibility. The Forest Service accomplishes this goal by following the Architectural Guidelines for the Rocky Mountain Province (see USDA-FS, FS-701, “The Built Environment Image Guide for The National Forests and Grasslands”, December 2001) (USDA Forest Service 2021).

When possible, management seeks to maintain, or improve, the ecological conditions within the viewshed. This involves restoring degraded areas in a way that supports the natural ecological diversity within these ecosystems (USDA Forest Service 2021). The Black Hills NF uses four priorities for rehabilitating areas that do not meet SIO: 1) Relative importance of the area and the amount of deviation from the scenic integrity objectives. “Foreground” of high public use areas has highest priority; 2) Length of time it will take natural processes to reduce the visual impacts so that they meet the scenic integrity objective(s); Length of time it will take for rehabilitation measures to meet the scenic integrity objective; and Benefits to other resource management objectives to accomplish rehabilitation ([USDA Forest Service 2006](#)).

Since the 1997 forest plan was implemented, scenic character in the Forest has changed considerably mainly due to fire impacts and insect epidemics, and the corresponding vegetation treatments to respond to these events. Heading into the future there are several factors that may affect conditions on the Forest: 1) more people will be visiting the Forest and recreating in new ways, 2) the Forest could potentially experience further resource development, 3) neighboring private land could be further developed, 4) seismic activity, and 5) climate change. Each of these factors are discussed below.

## **Visitor Number Increase**

As stated previously, the number of people visiting the Black Hills NF is continuing to increase. As the human population continues to increase around the Black Hills and beyond, more people will be demanding recreational opportunities on the Forest and impacts will increase. According to the Census Bureau, South Dakota has experienced an 8.9 percent increase in population since 2010, and Wyoming has experienced a 6.1 percent increase during the same time ([United States Census Bureau 2020](#)). This population growth will supply an increasing number of local visitors. Another trend worth noting is the population increase throughout the American west in general. As the west continues to become more populated, more and more visitors will turn to the Black Hills as a recreation hotspot. There are several reasons for this likely visitation growth: 1) The Black Hills is less crowded than the well-known National Parks and other public lands in the west, and more recreationists are in search of less crowded lands; 2) The Black Hills NF is a hub of recreation opportunity that is close to several other popular public land



destinations including Devils Tower National Monument, Mt. Rushmore National Memorial, and Wind Cave National Park; 3) Rapid City (the largest city on the periphery of the Forest) is the fastest-growing metro area in the Midwest ([U.S. Census Bureau](#)), and 4) traveling to Black Hills NF is a short drive from booming urban centers like Denver, Colorado. Denver and its surrounding suburbs are experiencing a population boom with some counties growing by over 30 percent within the past decade ([World Population Review 2021](#)). As Denver and the surrounding Front Range of Colorado continue to grow, the new influx of people will continue to support growing visitation levels in the Black Hills NF.

With a growing number of visitors, the Black Hills NF will need to recognize the increased impacts on the Forest. The spike in visitation levels observed in 2020 provides a potential glimpse of the future. The increase in visitation from 2020 put more pressure on the Forest's resources, especially on campsites. This higher level of use has carried into 2021. (USDA Forest Service 2021). If this trend continues, more visitors will result in the crowding of existing popular sites, as well as the increased use of some of the less popular sites. This means that recreation management on the Black Hills NF not only needs to gauge management towards the well-known sites that are receiving the most visitation, but that they need to increase management of the lesser-known areas that will continue to experience more visitor use. As seen in Map 3 (Appendix A), the Forest is currently experiencing the most visitation in the areas marked in red. These areas are clustered along major travel routes and popular developed recreation areas like the Pactola Reservoir and Sheridan Lake. Over time, these areas will continue to expand, and the Forest will continue to experience more usage throughout the entire landscape.

## Human Development

Since National Forests have a multiple-use management mandate that balances conservation and resource extraction, there is potential for human activity to further alter the Forest. For example, the Black Hills NF already has high kV powerlines and open pit mines that affect the visual appearance and ecological integrity of the landscape. In the future, these human developments could expand, or new developments could be initiated in new areas (USDA Forest Service 2021).

## Private Land Development

The Black Hills NF is surrounded by and intermingled with parcels of private land. The forest plan does not regulate private lands, but the private land development affects the settings that can be provided on adjacent NFS lands. Private land within the forest boundary is being developed, which results in changes to the setting. As these lands continue to be developed in the future, the character of the Forest will continue to change (USDA Forest Service 2021).

## Hazardous Geological Conditions

The most prominent hazards in the Black Hills NF are subsidence associated with karst collapse and mining, and mass wasting events including landslides. The Cook Lake area is an example of an area with hazardous geologic conditions. The bluff next to Cook Lake Campground is experiencing seismic movement, which has resulted in closure of the campground. The campground will continue to be monitored because landslide activity could potentially cause injury or death (USDA Forest Service 2021). Future seismic activity will continue to alter the natural and human-built landscape. More information can be found in the *Draft Renewable and Nonrenewable Energy Planning Assessment*.

## Climate Change

Over the last century, the average temperature in the Black Hills region has risen around 2oF (Timberlake et al. 2021). Some of these impacts are already being realized and noticed by the public. According to the

Black Hills Stakeholder Assessment report (2021), “Impacts of drought and climate change on water resources was a common concern raised by multiple participants.” The impacts associated with climate change are comprehensive because they affect nearly every aspect of the Forest including the lengths of the seasons, the influence of insects and diseases, wildfire risk, change to plants and wildlife, and changes to freshwater availability.

### ***Length of Summer/Winter Recreation Seasons***

In general, the length of the summer recreation season will increase as climate change runs its course (Timberlake et al, 2021). This change in season lengths will result in increased demand in both the spring and fall for certain activities. Prolonged summer recreation seasons will also lead to an increased demand on keeping developed recreation sites and facilities open for longer than their traditional seasons. A longer field season may lead to more operations and maintenance expenses for the Black Hills NF that will challenge the hiring capabilities and budgetary restrictions of the Forest. This seasonal shift will also result in a shorter winter recreation season. This will impact snow-based activities including snowshoeing, cross country skiing, fat biking, snowmobiling, and ice fishing. Many winter-based recreation areas are recognizing these future impacts and are pursuing an expansion of warm weather recreation offerings.

### ***Insects and Disease***

A changing climate results in expanded opportunities for invasive insects and diseases to enter the ecosystem, and it is also allowing native insects and diseases to spread in new ways. For example, the mountain pine beetle (native to the Black Hills NF) has drastically changed the character and ecological balance of the Forest since the 1890s. The first, and largest, recorded epidemic in the Black Hills occurred from the late 1890’s through the early 1900s. This epidemic killed an estimated 90 percent of merchantable timber within the Forest. Epidemics have occurred in 8–20-year increments since that time, with the current epidemic beginning in 1996 and returning to endemic status in 2016 ([Schotzko et al. 2016](#)). These patterns of insect and disease events have and will continue to require corresponding vegetation management responses. More information can be found in the *Draft Insects, Disease, and Invasive Species Planning Assessment*.

### ***Wildfire***

Climate change is leading to larger, and longer-burning, wildfires. This is resulting in substantial effects to the quality and sustainability of recreation settings and opportunities in both the short- and long-term, and both directly (e.g., higher temperature) and indirectly (e.g., increased wildfire frequency) (Timberlake et al. 2021).

Wildfire can close businesses, destroy Forest infrastructure (i.e., campgrounds, roads, trails, and trailheads), result in temporary fire bans in high-risk areas, and reduce the appeal of recreation and tourism for the public. Recreationists and local communities are often concerned about the effects of smoke on health and safety. Visitors may avoid areas that have been burned, as scenic integrity and fewer visitor services make the landscape less attractive for recreation ([USDA Forest Service 2017](#)).

### ***Plants and Wildlife***

Many of the plant and wildlife species on the Forest will be impacted by climate change. Climate change is likely to include warmer water temperatures, earlier snowmelt-driven runoff, increased flooding, and more variable summer flows, as well as indirect changes caused by shifts in disturbance regimes (Timberlake et al 2021).

Wildflowers and other plant species that attract visitors will also be impacted. An earlier onset and prolonged warm season will result in phenological changes for some plant species. Decreasing water availability will have a negative impact on most plant life. Aspens, which attract large amounts of visitors each autumn, require consistent water supply to produce their well-known golden colors each fall. Decreases in water supply will result in poor aspen colors and could potentially eliminate a substantial number of visitors during the fall season. Lastly, changes in climate will open the opportunity for invasive species to fill new niches in the ecosystem (Timberlake et al 2021).

### ***Freshwater Recreation***

With higher air temperatures, lakes, streams, rivers, and reservoirs on the Black Hills NF will experience ecological change. Additionally, these waters will be subject to increased drought conditions that may result in lower reservoir levels and negative impacts on reservoir-based activities. River-based activities such as trout fishing are also vulnerable to the changes in runoff and lower water levels ([USDA Forest Service 2017](#)).

## **Management**

### **Travel Management**

Standards for the management of motorized travel in the Black Hills NF are specified in the forest plan (USDA Forest Service 2006). In general, designated NFS roads are open all year to appropriate motorized vehicle use, unless closed for one or more of the following:

- Motorized use conflicts with forest plan objectives.
- Motorized use is incompatible with the ROS class.
- Motorized use creates user conflicts that result in unsafe conditions.
- Physical characteristics of travelway(s) preclude any form of motorized use.
- Travelways do not serve an existing or identified future public need.
- Financing is not available for maintenance necessary to protect resources.
- Seasonal travel restrictions are required.

Travel management standards for each Forest Management Area, as identified in the LRMP, are shown in ~~table 19~~[table 20](#) ([USDA Forest Service 2007](#)). More information regarding land ownership can be found within the *Draft Land Status and Ownership Planning Assessment*.

**Table 1920. Travel management standards for the Black Hills NF management areas**

Management Areas	Motorized Road Travel	Motorized Off-Road Travel	Snowmobile Travel
Black Elk Wilderness	Prohibited	Prohibited	Prohibited
Botanical Areas	Restricted*	Prohibited	Restricted*
Inyan Kara Mountain	Prohibited	Prohibited	Prohibited
Backcountry Motorized Vehicle Recreation Emphasis	Allowed	Restricted**	Allowed
Backcountry Non-motorized Recreation Emphasis	Prohibited	Prohibited	Restricted*
Late Successional Forest Landscape	Restricted*	Prohibited	Restricted*
Limited Motorized Use and Forest Product Emphasis	Restricted*	Prohibited	Restricted*
Spearfish Canyon	Restricted*	Prohibited	Restricted*
Peter Norbeck Scenic Byway (Section within the Norbeck Wildlife Preserve)	Restricted*	Prohibited	Restricted*
Resource Production Emphasis	Allowed	Allowed	Allowed
Southern Hills Forest and Grassland Areas	Allowed	Allowed	Allowed
Fort Meade VA Hospital Watershed	Restricted*	Prohibited	Restricted*
Black Hills Experimental Forest	Allowed	Allowed	Allowed
Sturgis Experimental Watershed	Restricted*	Prohibited	Restricted*
Big Game Winter Range Emphasis (Formerly Low-Elevation Wildlife Habitat)	Restricted***	Restricted***	Restricted*
Norbeck Wildlife Preserve	Restricted*		Restricted*
Big Game and Resource Production	Restricted*	Prohibited	Restricted*
Forest Products, Recreation and Big Game Emphasis	Allowed	Allowed	Allowed
Developed Recreation Complexes	Restricted*	Prohibited	Restricted*

\* Restricted to Designated Routes.

\*\* Restricted to Designated Trails.

\*\*\* Seasonal or yearlong restrictions may apply.

Based upon management area (MA) designations and their associated travel standards, nearly 60 percent of the Forest allows “all motorized travel allowed yearlong.” The remaining approximate 40 percent of the Forest has travel restrictions based on method of travel and season.

Motorized travel is restricted to protect sensitive areas. These areas may provide high quality winter and transitional habitat for deer and elk, high-quality turkey habitat, habitat for other species, and a variety of multiple uses. Seasonal restrictions are set to protect wildlife within the Big Game Winter Range Emphasis Area (MA 5.4). More information regarding motorized travel restrictions is presented in [table 20, table 21](#).

**Table 2021. Travel opportunity objectives**

[Source: [USDA Forest Service \(2007\).](#)]

Category	Percentage of Forest (%)
All Motorized Travel Allowed Yearlong	59.1
Seasonal Restrictions Apply	22.8
Seasonal Restrictions – No Off-Road Travel	3.2
Backcountry Motorized Recreation on Designated Trails	1.0
Only OHV Travel Prohibited	11.4
Motorized Travel Prohibited Except Snowmobiles	1.2
All Motorized Travel Prohibited	1.3

### Motorized Recreation Communications

As motorized recreation continues to expand in the Black Hills NF, one of the highest priorities for the Forest is to promote increased levels of communication between the Forest Service, the motorized recreation community, and the public. To do this, Black Hills NF will be employing an “OHV Community Engagement Specialist.” This person will provide education and transparency through news releases, interpretive videos, and other communication tools to promote the sustainability of the OHV use within the Black Hills NF (USDA Forest Service 2021).

### Recreation Area Infrastructure

Many trailheads are in average, subaverage, or poor condition. Many have not been maintained in years—trail markers/fences are not replaced and there is not enough staff to achieve the necessary tasks for management goals. Current management direction is adequate to achieve desired goals, but action is limited by budget and staffing. Despite these challenges, the Black Hills NF is doing a lot of coordination among the districts to move improvements forward (USDA Forest Service 2021).

## Actions of Others

### State and Local Plans

Consistency between the forest plan and state/local plans is difficult to achieve for the Black Hills NF because the Forest extends across Wyoming and South Dakota. Both states address recreation and tourism respectively in their SCORPs, and the Black Hills NF LRMP requires coordinated effort with these plans. The Forest Service can help achieve many of the strategies/goals/priorities identified in the SCORP within its mission.

### Native American Tribes

The Black Hills NF works closely with Native American tribes. For more information concerning Native American tribes, refer to the *Draft Areas of Tribal Importance Planning Assessment*.

Many of these tribes have legal rights within Black Hills NF

To include the Native American community in a sustainable management strategy, the Black Hills NF may need to work collectively with the tribes.

## **Adjacent Federal Land Use Plans**

The Black Hills NF is adjacent to BLM lands that are managed via two different resource management plans (RMPs). These RMPs include the South Dakota RMP and the Newcastle RMP in Wyoming. Review of those plans and coordination with those plans is needed.

## Chapter 3. Public Participation in the Planning Process

*This section may have some placeholders until after the public has had chance to review the assessment reports and the Black Hills NF has completed other public engagement activities.*

### Public Interest

The Black Hills NF performed preliminary outreach in the Black Hills NF Rapid /Informal Stakeholder Assessment Report (2021). Participants in this report brought up multiple different issues, including interconnectivity of various issues. Popular topics from this report include:

- Timber sustainability (24 times)
- Off-highway vehicle management (22 times)
- Social and economic sustainability for local communities (including job opportunities/workforce advancement) (12 times)
- Forest access, including access to sacred and cultural sites (11 times)
- Recreation management (7 times)
- Climate change (5 times)
- Management of Wildlife (not just habitat) (2 times)
- Multiple use – Equality (1 time)

### Future Involvement

*Pending additional outreach, this section will answer how do stakeholders want to be informed about this topic as the planning process proceeds.*

### Public Information Needs

*Pending additional outreach, this section will answer what is confusing to the public about this topic and what follow-up could improve understanding?*



## Chapter 4. Potential Need for Change

The Black Hills NF LRMP outlines the goal of providing for scenic quality, a range of recreational opportunities, and protection of heritage resources in response to the needs of the Black Hills National Forest visitors and local communities. In accordance with this goal, there are several potential opportunities for changes to the current plan that may reflect a more sustainable approach to recreation settings, opportunities, and scenic character.

### Spatial Layout and Popularity

According to the Recreation Program Manager of Black Hills NF, “the current level of recreation is sustainable if recreation is diversified across the forest.” Since most recreation is currently located in a few hotspots around the park, much of the human impact is magnified in these areas. In reference to Map 3 (Appendix A), the areas in red represent the heavily used “hotspots” within the Forest. These areas exist primarily on the northeastern portion of the Forest. They are clustered along major travel routes, located near urban centers, and located near popular developed multi-use recreation areas like the Pactola Reservoir and Sheridan Lake. There are several other areas throughout the Forest that are considered “hot spots” for recreation, but much of the Forest is marked as “low recreation use.” For example, much of the southern end of the Forest has little usage except for the Blue Bird and Martin trailheads. This area (commonly referred to as the Martin Trail System) is popular with ATV users for its 50-mile scenic loop, but there is not much diversity in activity happening in that region beyond the scenic loop.

If the Forest is to sustain long term use that upholds the health, diversity, and productivity of the Black Hills NF, there are several goals that need to be met. Recreation usage within the Forest needs to be diversified in three different ways: 1) the type of recreation, 2) the geospatial location of these activities, and 3) the season in which they take place. If the Forest can diversify in these three aspects, the Forest can shift the negative aspect of intense recreation usage for certain activities, occurring in certain areas, during certain times of the year.

### Developed Recreation

#### Horse Camping

The equestrian community is demanding more camping opportunities that fit their needs. These needs include camping areas that are exclusive to equestrian users. These sites need more corrals that provide enough space to comfortably accommodate multiple horses on the site, including those with a range of personality types (USDA Forest Service 2021). The Sundance Campground is an example of a site where equestrian users’ preferences are not being met. While equestrian exclusive camping opportunities will provide more complete resources for this user group, the development of these sites may decrease camping opportunities for non-equestrian users.

#### RV Camping

The Black Hills NF is continuing to see an increasing number of visitors that are accessing the Forest with larger recreation vehicles (RVs). There is currently insufficient camping sites that can accommodate these larger vehicles (USDA Forest Service 2021). These changes could be reflected in a change to ROS to provide more opportunities specific to RV users. Adding more RV camping opportunities may require additional road access, road maintenance, and additional electricity and sewage resources. While these additional resources would help accommodate the growing number of RV camping users, these additions

could also lead to user conflicts. An increase in generator noise and light pollution could impede the experience for non-RV camping users who are seeking out more primitive experiences.

## Dispersed Recreation

### Dispersed Camping

There is currently a lack of data concerning quantitative information about impacts of dispersed camping. There has been new information gathered on dispersed camping in recent years, but that data is not available in electronic format or in a standard mapping system. Therefore, the only reliable information available includes observations from written reports. This data gap presents a potential opportunity for improved management direction.

### Trail Conflicts

The Forest currently has many unauthorized trails that were constructed without the authorization and management of the Forest Service. Most of these trails have been created by the mountain biking community to expand the number and diversity of mountain biking opportunities in the Forest. There is currently a lack of information concerning the condition of these trails because they are unmapped by the Forest Service. There is a potential need to change current management direction of these trails in order to formally document and incorporate these trails or introduce enforcement measures that will discourage this activity.

### E-Bikes

Increasing use of e-bikes may require new management direction in order to help mitigate the impacts from this new user group. Additionally, e-bikes may need to be identified and managed by different equipment types because e-bikes have wide-ranging differences (i.e., speed and level of pedal assistance). These differences may warrant designating equipment types for specific areas. The US Forest Service classifies E-bikes as motorized transportation.

### Climbing

Rock climbing has become particularly popular in various areas of the Forest including Wrinkled Rock (located on State Highway 244 adjacent to the west boundary of Mount Rushmore National Memorial) and Sunshine Wall in Spearfish Canyon.

Ice climbing has also increased in popularity in areas like Spearfish Canyon. There are many climbs within the Forest that have easy access and no avalanche danger while offering challenges on vertical ice formed by springs and waterfalls ([Black Hills and Badlands SD](#)). While there are many opportunities for ice climbing, there are currently no guiding services authorized to guide ice climbers in Black Hills NF ([Black Hills and Badlands SD](#)). This is problematic considering that ice climbing is inherently dangerous, and the gear and the knowledge needed to participate in a responsible manner poses a significant barrier to entry. The Black Hills NF could help increase winter visitation, diversify recreation hotspots, and improve future safety if the Forest engaged with the ice climbing community.

## Recreation Settings (Recreation Opportunity Spectrum)

### Motorized and Non-Motorized Recreation

The key public concerns about recreation settings pertain to motorized and non-motorized settings. The development of ATVs and UTVs and their increasing use of these vehicles and motorcycles on the available routes has increased the impact of noise on the landscape. There may need to be additional management direction to address sound impacts at the levels of use currently being experienced. A landscape-scale strategy to provide adequate motorized recreation opportunities while maintaining acceptable noise levels in non-motorized areas may need to be considered.

As motorized and non-motorized recreation have both become more popular, there is contention about the optimum allocation or extent of motorized and non-motorized recreational opportunities in the Black Hills NF.

Opponents of off-highway vehicles (including ATV, UTV, 4WD, and snowmobile use) assert that motorized vehicles damage the environment and cultural artifacts, pose safety concerns, and conflict with other forms of recreation. They also contend that staffing levels and recreation budgets are insufficient to adequately monitor motorized use and its impacts on natural resources. Among environmental concerns raised by OHV critics are potential damage to wildlife habitat and land and water ecosystems; the impact of dust on winter snow melt and water supply; noise, air, and water pollution; and a diminished experience for recreationists seeking quiet and solitude and/or hunting and fishing opportunities. Critics also point to the beneficial economic impact of non-motorized recreation on local communities. According to the Black Hills Stakeholder Assessment Report (USDA Forest Service 2021), there is a trend of survey responses that note a “proliferation of OHV use.”

Off-highway and snowmobile vehicle supporters contend that using motorized vehicles allows visitors to access hard-to-reach natural areas; brings economic benefits to communities serving riders; and provides outdoor recreation opportunities for the disabled, senior citizens, and others with mobility limitations. Snowmobiles also allow increased access to sites during the winter. While motorized recreation does contribute more towards noise and air pollution, supporters argue that technological advances are continuing to lessen these nuisances.

One key issue for integrating motorized and non-motorized opportunity settings is the large amount of land needed to separate uses to create a sound barrier. For example, the distance between an OHV trail and a hiking trail needs to be far enough that hikers cannot hear motorized engines. To strike a balance between uses, recreation opportunities may need to be altered to allow more intense motorized use in one area, or more non-motorized use in another. Alternatively, motorized and nonmotorized recreation can be incorporated in proximity and users can decide whether to use the site or not. For a visual representation of motorized and nonmotorized opportunity settings reference Map 1. Recreation Opportunity Spectrum (Appendix A).

One of the main points of contention with motorized recreation is the interaction between motorized vehicle users and private homeowners. Many private homeowners have been vocal about their distaste for the noise, dust, and speed of motorized vehicle use near their homes.

Snowmobiling adds another layer of complexity within this area of management. The Black Hills NF is the most popular snowmobiling destination in the entire state of South Dakota (USDA Forest Service, 2021). Snowshoeing and cross-country skiing users have similar conflicts with snowmobilers as nonmotorized users have with motorized users during the warmer months of the year. One of the main conflicts involved in snowmobile use is attributed to technological advances in snowmobiles. Machines are now being made that can travel further and into steeper terrain—giving snowmobilers access to areas where nonmotorized users once predominated. Management needs to evolve alongside snowmobile

technology to maintain an appropriate balance between winter motorized and non-motorized uses, such as if there are wilderness incursions.

As emerging trends in recreation continue to develop, new conflicts will arise between Forest visitors. These evolving issues will continue to challenge the Black Hills NF and require new management responses.

## **Winter Recreation Opportunity Spectrum**

Over-snow use decisions from requirements in Subpart C of the Travel Management Rule are different than requirements for forest plan revision under the 2012 Planning Rule. Subpart C is a travel management process to designate motorized over-snow routes and areas as open, subsequently prohibiting motorized travel anywhere that is not designated (36 CFR 212, FSM 7700).

## **Special Events**

There may need to be additional management direction to help facilitate the shared resources between special use events and the other non-affiliated recreationists and outfitter-guide operations.

## **Scenic Integrity Objectives**

There may need to be additional management direction pertaining to the relationship between SIO and natural influences like mountain pine beetle infestation and fire influence.

## **Volunteers, Partnerships and Other Methods for Managing the Recreation Program**

Strategic direction to find alternative means of managing the recreation opportunities on the Black Hills NF is needed. The current volunteer/partnership program and the recent expansions of these efforts have proven to be beneficial. Developing strategies to continue this and create new ways of managing the Forest and maintaining recreation amenities are needed. One opportunity to help resolve data gaps related to recreation management includes appointing a representative from each district to have access to input INFRA (Forest Service's Infrastructure Application) data.

## **Barriers to Recreation Opportunities for Minority and Under-Represented Groups**

Consider strategic direction to enhance the connections of people to nature and for opportunities to better serve minorities and under-represented groups.

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## **Appendix A. Maps**

The following maps are provided as separate PDF documents on the forest plan revision [assessment webpage](#) for the Black Hills National Forest.

Map 1. Recreation Opportunity Spectrum

Map 2. Science Integrity Objective

Map 3. Heat Map of Developed Recreation Usage