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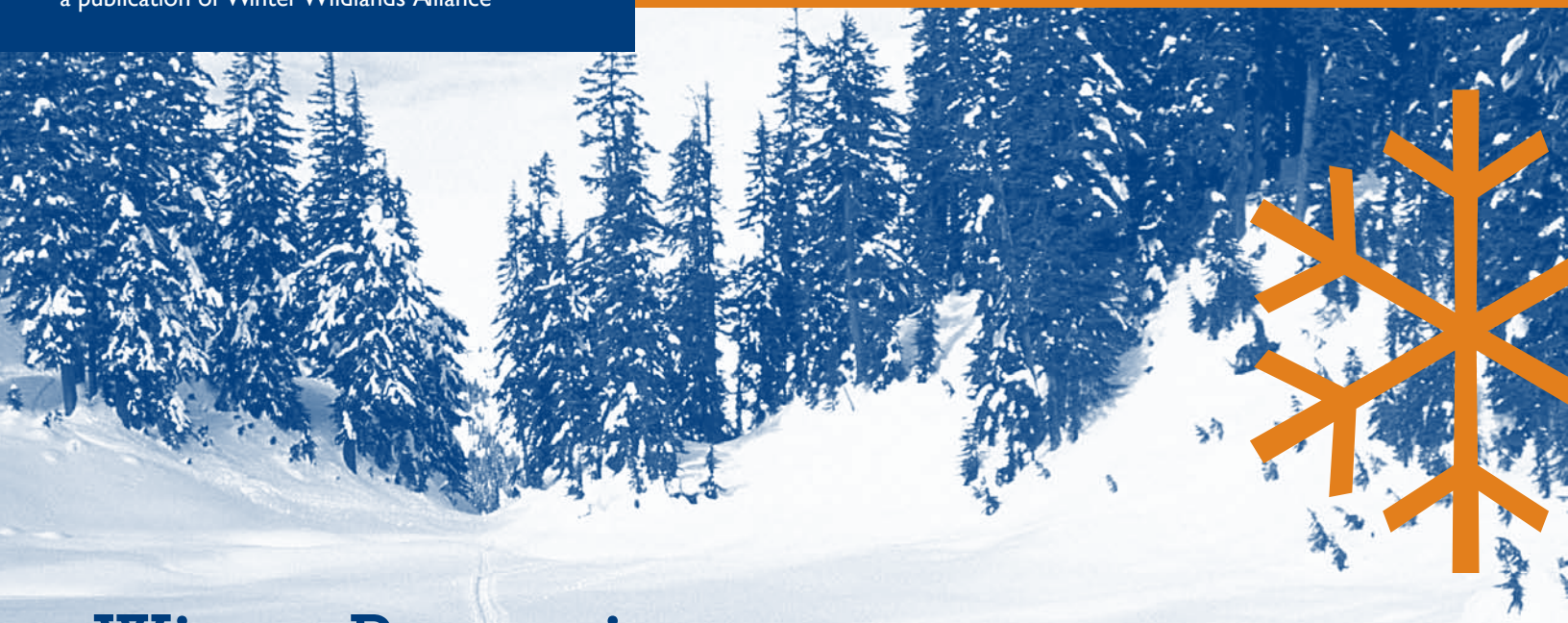

Winter Recreation on Western National Forest Lands

A Comprehensive Analysis of Motorized and Non-Motorized Opportunity and Access

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A Comprehensive Analysis of Motorized and Non-Motorized Opportunity and Access

July, 2006

By Kathleen E. Rivers and Mark Menlove

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Executive Summary:

Over the past two decades, a significant increase in winter recreation on Western national forest lands, along with improved technology and greatly expanded reach of snowmobiles, has led to a critical situation. In addition to taxing natural resources, the escalating conflict between two distinct user groups – motorized, primarily snowmobiles; and non-motorized or human-powered, primarily cross-country and backcountry skiers, snowboarders and snowshoers – has resulted in untenable conditions on forest lands and for Forest Service officials charged with responsible management of those lands.

Participation in winter recreation is steadily growing at both ends of the spectrum. The National Survey on Recreation and the Environment, co-sponsored by the U.S. Forest Service and most recently updated in 2004, estimates that 11.9 million people in the U.S. snowmobile annually, up from 5.3 million in 1982-83. The same survey charts 12.3 million annual participants for cross-country skiing and snowshoeing, up from 5.3 million cross-country skiers in 1982-83 (the earlier survey did not track snowshoeing). See Table 1, pg. 3.

For both user groups, the central issues are opportunity and access. Citing the motorized impacts of noise, exhaust, safety concerns and snowmobile tracks, skiers and snowshoers assert that opportunities for quiet, quality recreation have been lost on many forests. Snowmobilers counter that their access to forest lands is being limited.

Until the 1990s, there was little overlap between motorized and non-motorized winter forest users. Before that time, motorized use was generally restricted to packed trails and roads as early snowmobiles would easily become bogged down in deep snow. Skiers and snowshoers wishing to avoid motorized impacts could go off-trail to areas unreachable by snowmobile. In the 1990s, however, the development of the "powder sled" vastly increased the reach of snowmobiles allowing the newer, more powerful machines to dominate terrain previously accessible only by backcountry skis or snowshoes and putting the two user groups on the current collision course.

This report is an effort to provide concrete data to Forest Service officials and other public land managers to help them better address the issue of equitable opportunity and access for quality winter recreation on national forest lands. Between 2003 and 2005, Winter Wildlands Alliance submitted Freedom of Information Requests to each national forest receiving regular snowfall in the Western Snow Belt states of California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, and the western portions of Nebraska and South Dakota. The FOIA requests sought, from each individual national forest, documentation of the following: number of acres open to snowmobiles; number of acres closed to snowmobiles, including wilderness areas; number of groomed snowmobile (or multi-use) trails, routes, or roads; number of groomed cross-country ski or snowshoe trails, routes, or roads that are closed to snowmobiles.

In addition, using data from the National Visitor Use Monitoring Program (NVUM) conducted by the National Forest Service, Winter Wildlands Alliance gathered annual visitor numbers for cross-country skiing, snowshoeing and snowmobiling for each forest in the region listed above. NVUM data shows that these forests receive 5.6 million cross-country skier and snowshoer visits annually and 4.4 million snowmobile visits annually. See Table 1A, pg. 3.

The FOIA responses show that, of the 116 million acres of national forest land within the 11 Western Snow Belt states, approximately 81 million acres, or 70 percent, is open to snowmobiles. See Table 2, pg. 4.

Significantly, of the approximately 35 million acres officially designated as non-motorized, more than two-thirds of the acreage lies within designated wilderness areas. Motorized proponents often point out that non-motorized users have exclusive use of wilderness areas. However, in winter, the distances from plowed parking areas and trailheads make the vast majority of designated wilderness areas inaccessible to skiers and snowshoers.

As for groomed winter trails, the FOIA responses show an estimated 20,389 miles of groomed trails in these Snow Belt national forests. Just 1,681 miles, or eight percent, of those groomed trails are designated as non-motorized. See Table 3, pg. 5.

Despite the fact that the NVUM surveys show 28 percent more cross-country skier and snowshoer visits than snowmobile visits, more than twice as many "backcountry" forest acres are designated motorized (multi-use) as non-motorized in winter. When difficult-to-access wilderness areas are taken out of the equation the disparity becomes more severe, with designated motorized acreage outnumbering non-motorized, non-wilderness acreage by more than seven times.

Even more striking, there are 11 times more groomed trails open to snowmobiles than there are groomed trails designated as non-motorized. This results in a ratio of 14 times more skier and snowshoer visits per non-motorized mile than snowmobile visits per motorized mile.

This disparity between motorized and non-motorized opportunity and access is repeated on a forest-by-forest and state-by-state basis across the region. The result is dwindling opportunity for skiers and snowshoers to find a quality recreation experience and escalating conflict between motorized and non-motorized users on national forest lands.

Winter Wildlands Alliance and our constituents contend that in most cases the designation "multi-use" is a misnomer and is de facto single use: motorized. In other words, while skiers and snowshoers have access to multi-use areas, because of the motorized impacts listed above and elaborated in this report, the opportunity for a quality human-powered recreation experience is lost on forest lands designated as multi-use because those lands are in fact dominated by motorized use.

Executive Order 11644, signed by President Nixon in 1972, requires the Forest Service "to establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the

resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands." The order continues, stating that, "areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors."

The data documented in this report supports WWA's position that, in every applicable national forest unit, sizeable and accessible areas should be closed or remain closed to over the snow vehicles to insure a quality recreation experience for human-powered winter recreationists. All snow recreation should be managed to protect the safety and enjoyment of all users, natural resources and wildlife. Furthermore, Winter Wildlands believes that protection of wintering wildlife and critical winter habitat should prevail over all recreation use, whether motorized or non-motorized.

Photo courtesy of Atlas Snow-Shoe Company

Historical Overview

Skiing and snowshoeing have a long and rich tradition on Western forests. Early European trappers, hunters, explorers and surveyors adopted snowshoes from Native Americans as their primary mode of winter travel.[1] Scandinavian miners brought their skiing tradition with them to the Western mining camps of the mid-1800s and skiing quickly caught on both as recreation and for more utilitarian purposes such as mail delivery during long isolated winters.[2] Skiers and snowshoers have ventured into the backcountry ever since. The first ski race in the United States took place in 1860 in California.[3] The first backcountry ski huts were developed in Idaho and Colorado in the 1930s and 1940s. Archeological findings, including skis preserved in bogs and prehistoric rock art, date the use of skis and snowshoes to 5,000 years ago.[4]

As to historical snowmobile use, attempts to build over-the-snow machines date back to the 1920s.[5] In 1935 a utilitarian snowmobile that could carry twelve people was developed for emergency transport[6] and the timber industry also made use of an early snowmobile.[7] Not until the 1950s, however, with the invention of small gas engines, did snowmobiles come into use for recreational purposes. By the 1970s, a number of small manufacturers were building snowmobiles. Honda made a prototype machine in 1973 called the White Fox that had a 178 cc two-stroke engine and weighed 227 pounds. It could be carried in the back of a station wagon.[8] The specifications for the Sno-Jet (a company purchased by Kawasaki) made in 1976 show a 355-pound machine with a 338 cc engine.[9]

Until the 1990s, however, snowmobiles were generally restricted to packed trails and roads as the earlier machines would easily become bogged down in deep snow. In the mid-1990s, the development of the "powder sled" vastly changed the pattern of snowmobile use. As stated by the International Snowmobile Manufacturer's Association, "today's snowmobiles bear little resemblance to earlier models."[10] For example, the 2006 Ski-Doo Mach Z has a 1000 cc engine, weighs 529 pounds and can reach 101 mph in a quarter mile.[11] The manufacturer calls it "the all you can eat powder buffet."[12]

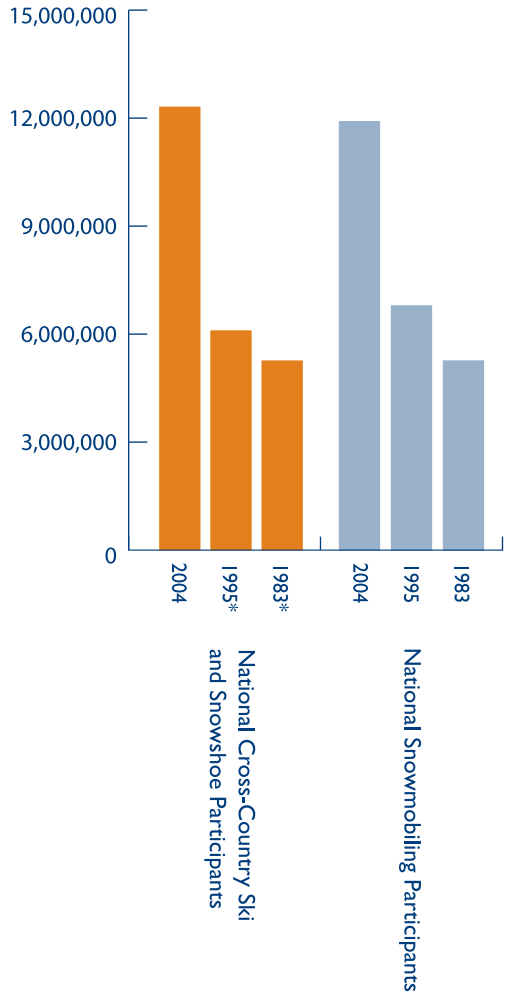
These advances in technology have expanded the terrain used by snowmobiles putting them on a collision course with skiers and snowshoers. The National Survey on Recreation and the Environment, a collaborative study co-sponsored by the National Forest Service, concludes, "new technologies and better modes of accessing backcountry will continue to shift the nature of the demand for outdoor recreation. Most impacted by these shifts will be the more traditional passive forms of outdoor recreation where quiet, natural settings for learning, reflection, and nature appreciation are sought."[13]

Increasing Numbers of Participants

Participation in winter recreation is steadily growing. Government surveys put the number of snowmobile participants in the U.S. in 1982-83 at 5.3 million.[14] Prior to that time, snowmobiling was not even included in the surveys, the first of which was conducted in 1960.[15] The most recent survey, conducted in 2004, estimates that in the United States 11.9 million people snowmobile annually.[16]

Table 1: National Participation in Cross-Country Skiing, Snowshoeing, and Snowmobiling

Source: U.S. Government, National Outdoor Recreation Survey
*The 1983 and 1995 surveys did not track snowshoeing



As to the human powered winter sports, the same government surveys show that in 1960, 2.6 million people in the U.S. participated in snow skiing, including cross-country skiing.[17] By the winter of 1982-83 there were an estimated 5.3 million cross-country skiers (the survey did not track snowshoeing or telemark skiing participation).[18] Current government surveys show that in the United States 12.3 million people cross-country ski or snowshoe annually.[19] A study conducted by the Outdoor Industry Association shows significantly higher participation numbers – 9.8 million cross-country skiers, 4.7 million snowshoers and 3.6 million telemark skiers[20] – but for purposes of consistency in the data used for this report, the government figures are used. See Table 1, pg. 3.

In recent years, the National Forest Service has conducted a National Visitor Use Monitoring Program (NVUM) to gain more detailed participation data for each forest. This program includes visitor use surveys that are designed to measure the reasons why people visit a particular forest and the amount of participation in each activity in that forest. The results of the surveys from the national forests in the Western Snow Belt states of California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, and the western portions of Nebraska and South Dakota show that these forests receive 5.6 million cross-country skier and snowshoer visits annually and 4.4 million snowmobile visits annually. See Table 4, pg. 10, for forests studied and Table 1A, pg. 3, for NVUM visitation estimates.

In their study of recreation trends, the National Forest Service concludes, "there will likely be more conflicts among recreationists who will be competing at the same times for use of some of the same areas and sites for different forms of outdoor recreation."[21] These "continued increases in visits to most federal and state forests and parks will put added pressures on public managers to adopt new management policies and practices."[22]

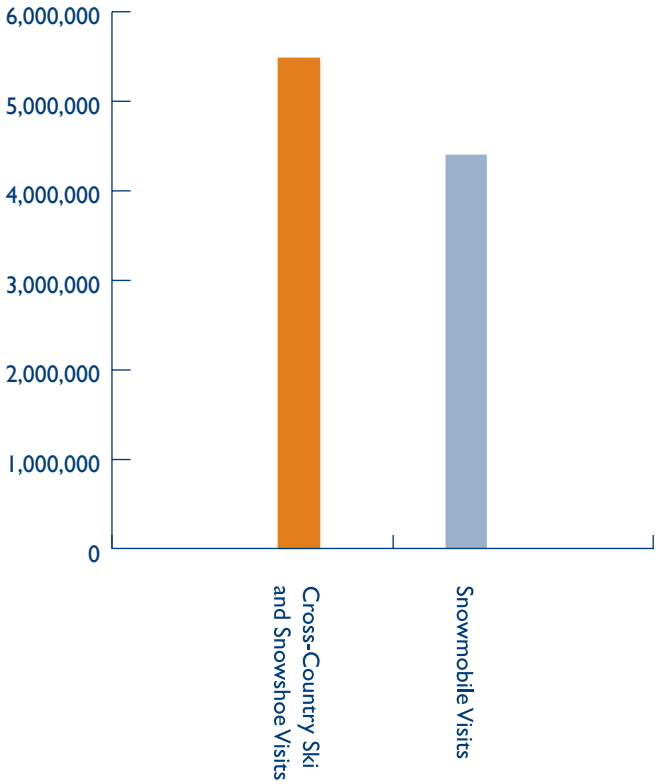
Competing Recreation Uses on a Finite Resource

The national forests identified in Table 4 encompass a total of 116 million acres and include all of the Western Snow Belt forests that receive regular snowfall. This report focuses on the national forest lands as these lands are generally at higher elevations and receive more reliable snow than most BLM and state-owned public lands.

These forests also represent escalating conflict zones, with cross-country skiers and snowshoers asserting that on many forests it is nearly impossible to find the quiet, peaceful recreation experience they seek, and snowmobilers countering that the forest lands are being closed off to them.

Table 1A: National Forest Annual Visits Per Activity in Western Snow Belt Region

Source: U.S. Government, National Visitor Use Monitoring data



Whatever degree of skill a skier may possess, he should never forget that his skis are after all only an instrument, a means through which he can enjoy the winter in all its glory and ruggedness, can breathe clean fresh air, can meet human beings in their true character, and can forget all the petty troubles which beset our so-called civilization. These are a few of the reasons why skiing is not merely a sport – it is a way of life.

– Ski Pioneer, Otto Schniebs, 1936

In an effort to shed more light on these competing assertions, between 2003 and 2005, Winter Wildlands Alliance submitted Freedom of Information Act requests to each of these national forests. The FOIA requests sought, from each individual national forest, documentation of the following:

1. Number of acres open to snowmobiles.
2. Number of acres closed to snowmobiles, including wilderness areas.
3. Number of groomed snowmobile (or multi-use) trails, routes, or roads.
4. Number of groomed cross-country ski or snowshoe trails, routes, or roads that are closed to snowmobiles.

All of the forests responded and the data was refined after many hours of follow up calls and submission of amended requests.

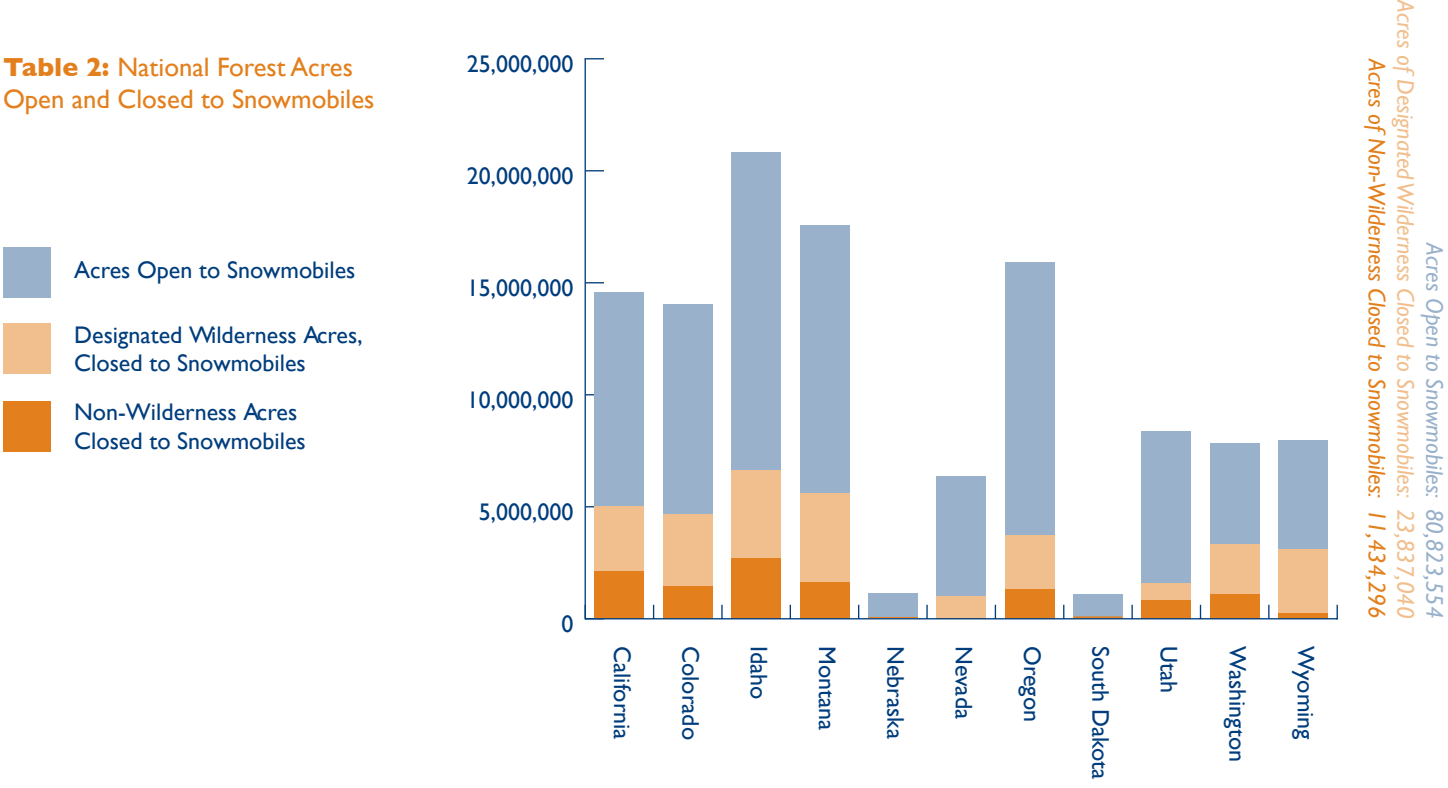
The responses received from the forests show that approximately 81 million acres, or 70 percent, of the forest land within the 11 Western Snow Belt states is open to snowmobiles. See Table 2, pg. 4.

It bears mention that, of the approximately 35 million acres officially designated as non-motorized, more than two-thirds of the acreage lies within remote wilderness areas. In winter the distances from plowed parking areas and trailheads make the vast majority of designated wilderness areas inaccessible to skiers and snowshoers. Recreation planners in the state of Washington accurately noted in their state plan that "only the most hardy and determined mountaineers will undertake a winter visit to the tens of thousands of acres of rugged wilderness backcountry"[23] and that "simply getting into undeveloped areas of a national forest in winter can be difficult, sometimes impossible."[24]

As for groomed winter trails, the FOIA responses show an estimated 20,389 miles of groomed trails in these Snow Belt national forests. Just 1,681 miles, or eight percent, of the 20,389 miles of groomed trails are designated as non-motorized. See Table 3, pg. 5.

The NVUM surveys show that cross-country ski and snowshoe visits outnumber snowmobile visits by more than 28 percent. In that light, the fact that there are more than double the "backcountry" forest acres designated motorized as non-motorized in winter hardly seems equitable. When difficult-to-access wilderness areas are taken out of the equation the disparity becomes more severe, with designated motorized acreage outnumbering non-motorized, non-wilderness acreage by more than seven times.

Table 2: National Forest Acres Open and Closed to Snowmobiles



Even more striking, especially in light of the participation numbers cited above, there are 11 times more groomed trails open to snowmobiles than there are groomed trails designated as non-motorized. This results in a ratio of 14 times more skier and snowshoer visits per non-motorized mile than snowmobile visits per motorized mile.

The consequence of this disparate situation is dwindling opportunity for skiers, snowshoers and other quiet winter recreationists and escalating conflict between motorized and non-motorized users on national forest land.

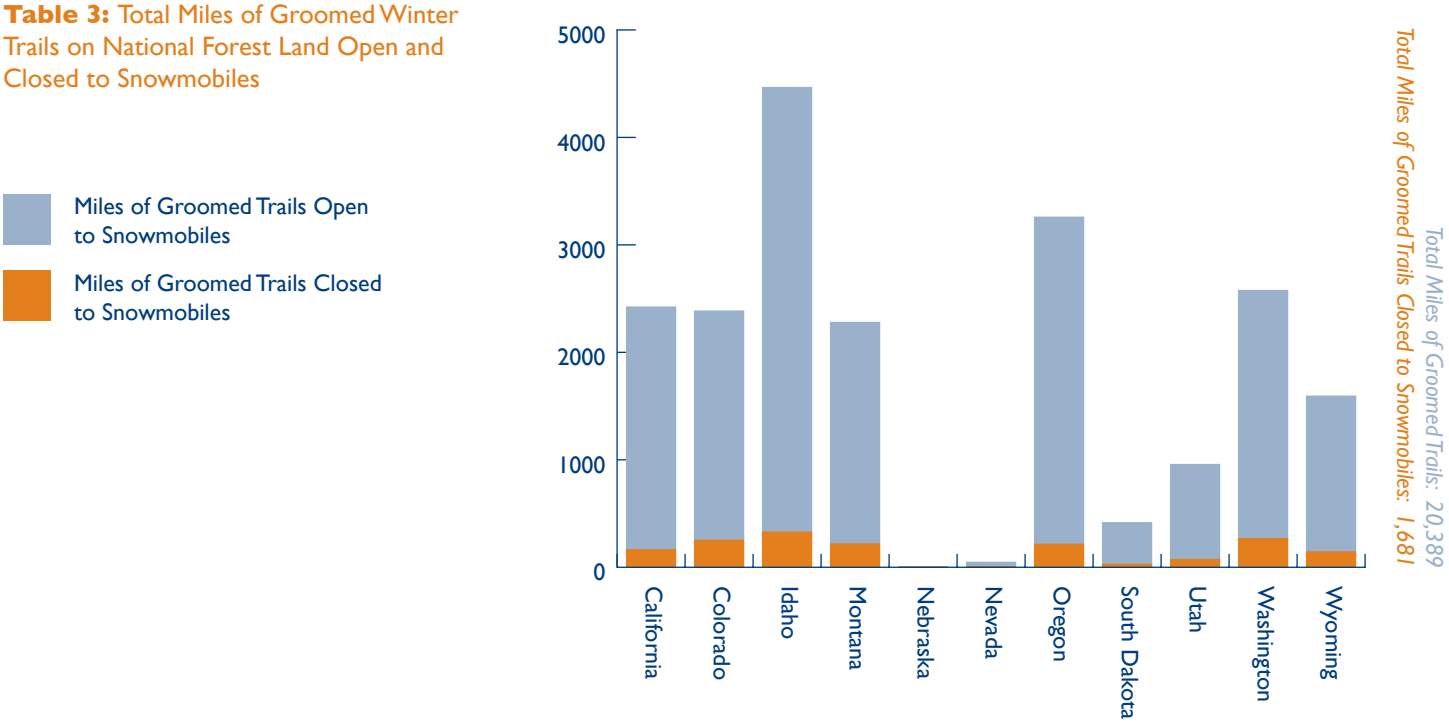
Public land managers at the highest levels foresaw conflict between motorized and non-motorized use as early as the 1970s. In 1972 President Nixon signed Executive Order 11644 which requires the Forest Service "to establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands." The order continues, stating that, "areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors."[25]

Despite early warnings and escalating conflict, public land managers have little data to rely on in managing the impact of snowmobiles. In 2000, the Government Accounting Office conducted a survey of all federal land management units. Its report concluded that "[a]bout 60 percent of the units that have recreational use of personal watercraft and/or snowmobiles reported that the units have not collected any information on the impacts of that use. In addition, of the remaining 40 percent of the units whose respondents said such information has been collected, about half reported the information was less than adequate to determine how personal watercraft and snowmobile use should be managed. The limited amount of information on the impacts of these vehicles is reflective of the low priority that these agencies have given to monitoring the effects of the recreational use of these vehicles. This has occurred largely because, in the past, only a few federal units had high levels of use. However, increasing numbers of personal watercraft and recent technological changes that allow snowmobiles to travel to more remote and environmentally sensitive areas have raised concerns that these vehicles' use results in adverse environmental impacts, safety concerns, and conflicts with other users."[26]

The recent formation by skiers and snowshoers of organizations in the states of Alaska, California, Colorado, Idaho, Minnesota, Montana, Nevada, Oregon, South Dakota, Utah, Vermont, Washington and Wyoming to represent their interests before the Forest Service is indicative of increasing concern for the way public lands are being managed for winter recreation.[27] Public land managers are now being compelled to address these conflicts through mediation, focus groups, workshops, special orders, and travel plans.[28]

This report is presented to assist in that process. In reviewing the following data and the call for equitable access and opportunity, it is important to bear in mind the elements that constitute a quality recreation experience for skiers, snowboarders, snowshoers and other quiet winter recreationists. Human-powered recreationists venture into the winter backcountry in search of peace and solitude: to connect with nature. At the very core of this experience are the natural sounds, sights and beauty of pristine snowscapes.

Table 3: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles



Motorized use impacts the human-powered winter recreation experience in a number of ways.

Noise

Noise has a significant impact on the cross-country skiing and snowshoeing experience.[29]

Noise is regulated through executive orders, statutes, rules, and ordinances from the highest levels of the federal government to small towns throughout the country.[30] Federal land managers have curtailed overflights,[31] personal watercraft,[32] and snowmobiles[33] on many public lands because of their excessive noise. In Canada, a class action filed by a group of homeowners on account of snowmobile noise resulted in a court ruling "that the noise of the snowmobiles generally exceeded the acceptable norms and constituted an abnormal neighborhood annoyance."[34] The court enjoined further snowmobile use and awarded the homeowners damages.

The snowmobile community has acknowledged that snowmobile noise is such a problem that it threatens their sport.[35] For example, the Manchester, New Hampshire Union Leader reported that snowmobilers there met to discuss how to avoid the closure of trails because "among the major complaints from residents is the high-pitched sound of souped-up racing sleds, which are growing in popularity."[36] Nevertheless, the snowmobile industry continues to oppose noise restrictions.[37]

While the newer four-stroke snowmobiles are a step in the right direction, relatively few of these models are currently being made or purchased. A review of the product lines advertised on the websites of the four major snowmobile manufacturers, Arctic Cat, Polaris, Bombardier (Ski-Doo), and Yamaha, shows that only a small percentage of all of the models are four-stroke machines. 2004 snowmobile industry sales figures show that four-stroke machines accounted for 14 percent of total snowmobiles sold.[38]

While the four-stroke engines do fare somewhat better in noise level testing than traditional two-stroke engines, the most recent data from Yellowstone National Park where four-stroke machines are mandated shows that four-stroke snowmobiles still generate excessive noise.[39] An April 15, 2004 press release by the Coalition of Concerned National Park Service Retirees reported that "the results of a so-far-unreleased March study conducted for the National Park Service, show that 18 out of 20 snowmobile tests generated peak noise levels in excess of 100 decibels, far over Yellowstone's new snowmobile noise standard, which promised to reduce snowmobile noise at full throttle to no more than 73 decibels. The recorded sound level for 18 of the 20 snowmobiles is louder than a pneumatic drill and many times noisier than outboard motors or busy traffic."[40]

An earlier published noise study from Yellowstone involving four-stroke machines shows that under a "best case scenario" (upwind, no temperature inversion, soft snow) snowmobiles were audible at distances of up to a half mile.[41] When there was a temperature inversion or firm snow, or for those downwind of a snowmobile, the machines could be heard more than two miles away.[42] Other reports document snowmobile audibility up to twenty miles away.[43] The typical practice of snowmobilers to ride in groups[44] further amplifies the noise level.

Furthermore, aftermarket modifications to snowmobiles continue to defeat reductions in noise. "What's hurting us are the losses on the trail system from those people with the big iron out there," states Mark Larsen, who is chairman of the Governor's Snowmobile Recreation Council in Wisconsin, in an article in the Milwaukee Journal Sentinel Online.[45] The author of that article notes that big iron "refers to riders who retrofit their exhaust systems so they sound louder."[46]

This practice is popular and is in part driven by market forces. As explained in an article in "Snowmobile Online" by Jerry Mathews, of Starting Line Products, "[i]n the past, aftermarket systems have typically increased the noise level somewhat (in some cases immensely), as well as boosted the power. This practice has been widely accepted and wasn't a large problem until just recently because these sleds were mostly used for racing, not pleasure riding. With more and more snowmobilers modifying their sleds and using them strictly for pleasure riding, it makes noise level enforcement difficult. The two tests the OEMs are required to pass are difficult to conduct and enforce in the field. …[A] large number of dealers barely break even on new unit sales and therefore are forced to rely heavily on aftermarket parts sales in order to make up the difference. Aftermarket pipe sales help to make dealers more profitable so that they can employ more people to service their customers properly."[47]

Thus, even with the development of four-stroke snowmobiles, noise remains a major detriment to the peace, quiet and natural sounds that are an integral part of the experience backcountry skiers, snowshoers and other quiet users seek on public lands.

Exhaust and Air Pollution

Snowmobile exhaust is another major detriment to a quality experience for skiers and snowshoers.

Photo courtesy of Kevin Kobe

Snowmobilers and cross-country skiers alike are familiar with the blue cloud of exhaust that often hangs over winter trailhead parking lots and popular trails. In fact, snowmobile publications cite the lingering exhaust as part of the gritty allure of their sport.[48]

The Environmental Protection Agency reports that "snowmobiles emit more than 200,000 tons of hydrocarbons (HC) and 531,000 tons of carbon monoxide (CO) each year across the United States. These emissions contribute to ambient concentrations of CO, air toxics, and fine particulate matter which are largely responsible for visibility impairment at our national parks. Emissions from snowmobiles contain toxic compounds such as benzene."[49] These emissions increase with elevation and cold.[50]

Since snowmobilers typically ride in groups, the "direct relationship between the number of snowmobiles and emissions and, consequently, air quality levels" compounds the problem, according to a U.S. Department of Interior publication.[51] The article continues, "Meteorology also plays an important role in that cold, stable atmospheric conditions with low wind speeds hinder the dispersion of air pollutants and allow pollutants to accumulate in the immediate area of their release."[52]

Snowmobile exhaust emits carbon dioxide, hydrocarbons, particulate matter, and nitrogen oxide, all of which are hazardous to health and are sources of pollution.[53] According to a report prepared by the Air Resources Division of the National Park Service in 2000, "when compared to various automobile emission estimates, a snowmobile operating for 4 hours, using a conventional 2-stroke engine, can emit between 10 and 70 times more CO [carbon dioxide] and between 45 and 250 times more HC [hydrocarbons] than an automobile driven 100 miles."[54] That same report notes that "the California Air Resources Board reports that a personal watercraft with a 2-stroke engine, which is similar to ones used in snowmobiles, operated for seven hours produces more smog-forming emissions than a 1998 passenger car driven 100,000 miles."[55]

As with noise, the newer four-stroke or fuel injected machines are a long-overdue step in the right direction, though, as mentioned above, these models represent a fraction of the snowmobiles in use. Tests of stock four-stroke machines do show reductions in carbon monoxide and hydrocarbon emissions.[56] However, they also show a seven- to twelve-fold increase in nitrogen oxide emissions. Nitrogen oxide is a primary component to ozone (or smog) formation and a major contributor to acid rain.[57] Also, the use of low grade oils and low grade gasoline, poorly tuned engines and track systems, dirty spark plugs, and improper operation all reduce the efficiency of four-stroke machines.[58]

It is a positive sign that the EPA has adopted emission standards for new machines. Unfortunately, several factors serve to reduce their impact and perhaps even trivialize them.[59] The standards adopted do not eliminate noxious emissions but only reduce the amount of CO and HC emissions by 50 percent. Further, manufacturers have until 2012 to bring their fleets into compliance and they may meet the standards by using "fleet averaging," which means that each manufacturer's production fleet would only have to, on average, meet these emission reductions.[60] Some of the models may continue to exceed the standard as long as other models beat the standard. High powered mountain, powder, and hill climbing snowmobiles – those used in the backcountry – will almost surely exceed the emissions standard.[61] Additionally, the standard only applies to stock models. Since the aftermarket parts sales are such an important part of a retailer's revenue, it can be expected that many machines will be retrofitted, escaping the standards altogether. Finally, all existing snowmobiles are grandfathered into the EPA regulation.

Thus, even with new technologies and EPA emissions standards, exhaust will continue to be an issue where snowmobiles converge with skiers and snowshoers.

Photo courtesy of snowest.com

Safety Concerns

Skiers have expressed concerns about the "speed or recklessness of snowmobiles," and about "vulnerability as a self-powered recreationist."[62] These concerns are well supported.

The most powerful snowmobiles today have from 120- to 150-horsepower engines.[63] This is more power than many automobiles.[64] Snowmobiles typically weigh up to 600 pounds, and many can travel at speeds in excess of 100 miles per hour.[65] As mentioned above, the Ski-Doo Mach Z can reach 101 miles per hour in just a quarter of a mile. At such speeds, a snowmobile will travel 200 feet before being able to come to a stop.[66]

Excessive speed, alcohol, reckless driving, and inexperience (underage driving) are the most commonly issued citations and causes of accidents involving snowmobiles.[67] Most winter backcountry trails have no posted speed limit. Even on those that do, snowmobile speeds of 60-80 mph are common.[68]

Aggressiveness and big horsepower are the trademarks of the sport. Arctic Cat's 2006 models include the Attack, Turbo, and Crossfire.[69] Ski-Doo's 2006 motto is "Sharpening the edge of excitement"[70] and its ad for the FreeStyle snowmobile was "[s]ee the newest and most rebellious member of the Ski-Doo family. … If you wet your pants, you're doing it right."[71] The 2006 Mach Z X Package bragged that "[t]he baddest sled on snow gets even badder."[72] Polaris' website urged you to "[g]et aboard a 2006 Polaris snowmobile. Experience total domination for yourself."[73] "More than pure, linear acceleration, the [Polaris] Fusion offers handling so dynamic you can do more than drop the hammer – you can slam it down and stomp on it. But do remember to stop occasionally, so your friends can catch up."[74] Yamaha sells the Rage, the Attak and the Nytro and boasted that the Nytro has "serious torque and big horsepower pushing a fantastic chassis that likes to play rough."[75]

This aggressive attitude is sometimes aimed directly at skiers, as illustrated by a 2005-06 Polaris national advertising campaign. The ad features a gloved hand giving a thumbs-up to, "Sweet Trails. Fresh Powder. And The Clubs Who Make It Possible." and a thumbs-down to, "Long Summers. Skiers. And Snot-Sicles In Your Chili."[76]

The tremendous power, weight and traction of snowmobiles are incompatible with skiers, snowshoers and other pedestrian users on winter trails and backcountry terrain.

Tracks

For backcountry skiers and snowboarders, untracked powder is the pinnacle of their pursuit. As backcountry skiing pioneer and ecologist Dolores LaChapelle writes, "One can never be bored by powder skiing because it is a special gift of the relationship between earth and sky. It only comes in sufficient amounts in particular places, at certain times on this earth; it lasts only a limited amount of time before sun or wind changes it. People devote their lives to it 'for the pleasure of being so purely played' by gravity and snow."[77]

Photo courtesy of Jeff Erdoes

A snowmobiler in a mediation group of skiers and snowmobilers attempting to map out areas in the Sawtooth National Forest for both users candidly voiced one of the crux concerns of skiers: "You are afraid that with the increase in power and numbers of snowmachines, every inch of the forest will be tracked up by snowmobiles."[78] To snowmobilers and skiers alike, the availability of untracked terrain or freshly groomed trails is key to a quality recreational experience.

The quality of cross-country and backcountry skiers' experience on national forest lands across the nation is rapidly eroding due to the ever increasing reach of snowmachines. Technological advances since the mid-1990s have dramatically altered winter use of national forest land. Improvements in horsepower, weight, traction, and fuel tank capacities enable snowmobiles to climb the steepest mountain slopes to access places previously reachable only by skiers using climbing skins. Before these advances, most snowmobile riders stayed on groomed trails because the machines would become easily stuck in soft powder snow.

One study reports that the average distance traveled by a snowmobiler in a day ranges between 127 and 367 miles.[79] By comparison, a skier or snowshoer will be hard pressed to cover more than five to 10 miles on ungroomed snow in a day. With snowmobiles traveling at average speeds of 45 to 60 mph, it takes less than an hour for a single snowmobile to completely track up a slope that multiple skiers could otherwise enjoy for days. In places where skiers and snowmobilers share groomed trails, skiers find that the groomed surface quickly becomes churned up or rutted by snowmobiles, making the skiing more difficult and the trail unsafe.[80]

Due to snowmobilers traveling freely on the vast majority of national forest lands, pristine terrain for skiers and snowshoers is rapidly disappearing under the tracks of snowmobiles.

Figure 1: Total Miles of Groomed Winter Trails on Western Snow Belt National Forests Open and Closed to Snowmobiles

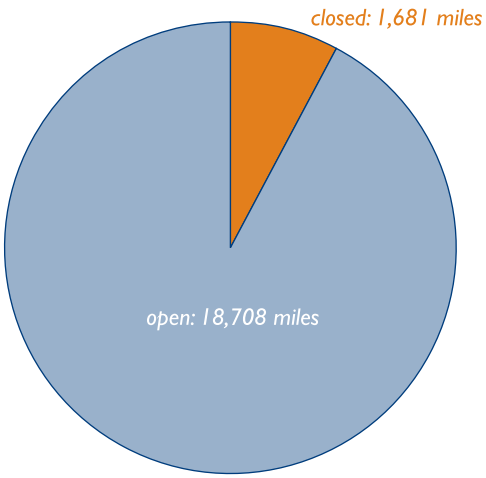
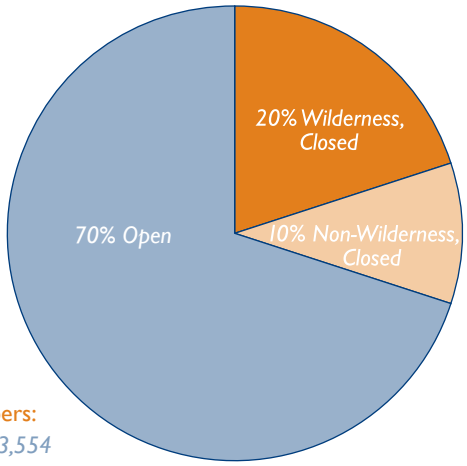
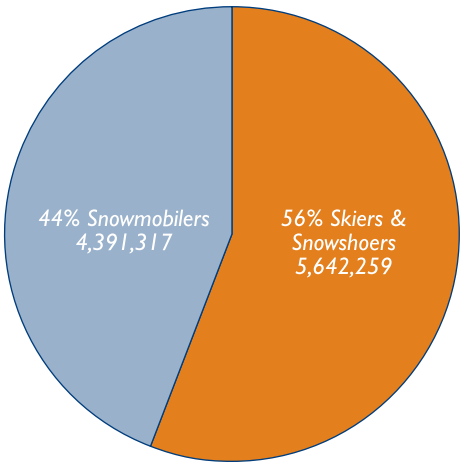


Figure 2: Total Acres on Western Snow Belt National Forests Open and Closed to Snowmobiles



actual numbers:
Open: 80,823,554
Wilderness Closed: 23,387,040
Non-Wilderness Closed: 11,434,296

Figure 3: Western Snow Belt National Forest Annual Visits by Snowmobiles, Cross-Country Skiers and Snowshoers



In the 11 Western Snow Belt states covered by this report, the national forests that receive reliable snow contain:
- 20,389 miles of groomed winter trails
- 18,708 miles of groomed trails open to snowmobiles
- 1,681 miles of groomed trails closed to snowmobiles (designated non-motorized)

See Figure 1, pg. 9.

Those forests contain:
- 115,940,419 acres of land
- 80,823,554 acres of land open to snowmobiles
- 11,434,296 acres of non-wilderness land closed to snowmobiles
- 23,387,040 acres of designated wilderness land, also closed to snowmobiles

See Figure 2, pg. 9.

The NVUM surveys show that for the Western Snow Belt forests, the number of cross-country skier and snowshoer annual visits exceed the number of snowmobile annual visits. The NVUM surveys show that in these forests, there are an estimated:
- 5,642,259 cross-country ski and snowshoe visits annually
- 4,391,317 snowmobile visits annually

See Figure 3, pg. 9.

These numbers confirm there is a vast network of groomed motorized trails and acres of land throughout the national forests in the West available for snowmobile use. By comparison, only a small fraction of those trails and a similar fraction of non-wilderness forest lands are set aside for human-powered winter recreation.

At the same time, the NVUM data shows greater numbers of cross-country skier and snowshoer visits than snowmobile visits on these forests.

This disparate situation results in a density of 3,356 skier and snowshoer visits per mile of groomed non-motorized trail compared to only 235 snowmobile visits per mile of groomed motorized trail.

All told, only eight percent of the miles of groomed trails are designated non-motorized, even though cross-country skiers and snowshoers account for 56 percent of the winter use. In contrast, snowmobilers enjoy 92 percent of the groomed trail miles, yet account for only 44 percent of the winter use.

Likewise, snowmobilers have access to 70 percent of the forest acreage, compared to cross-country skiers and snowshoers, who, in order to enjoy a motor-free experience, are left with just 30 percent of the total acreage, and two thirds of that 30 percent is wilderness, which is mostly inaccessible to skiers and snowshoers.

Similar disproportions exist in the individual forests in each state. The situation is especially severe in the states of Oregon, California, Colorado, Washington and Nevada, where NVUM surveys show much greater participation annually by cross-coun-

try skiers and snowshoers than by snowmobilers, yet only very small percentages of the groomed trail systems in these states are designated non-motorized.

Table 4: National Forests Studied

California: Eldorado, Inyo*, Klamath, Lake Tahoe Basin Management Area, Lassen, Modoc, Plumas, Sequoia, Shasta-Trinity, Sierra, Stanislaus, Tahoe
Colorado: Pike-San Isabel, Rio Grande, Routt, San Juan, Arapaho-Roosevelt, Grand Mesa-Uncompahgre-Gunnison, White River
Idaho: Boise, Caribou, Clearwater, Idaho Panhandle*, Nez Perce, Payette, Salmon-Challis, Sawtooth, Targhee*
Montana: Beaverhead-Deer Lodge, Bitterroot, Custer*, Flathead, Gallatin, Helena, Kootenai, Lewis and Clark, Lolo
Nebraska: Nebraska
Nevada: Humboldt-Toiyabe*
Oregon: Deschutes-Ochoco, Fremont-Winema, Malheur, Mt. Hood, Rogue River-Siskiyou*, Umatilla, Umpqua, Wallowa-Whitman*, Willamette
South Dakota: Black Hills*
Utah: Ashley*, Dixie, Fish Lake, Manti-LaSal, Uinta, Wasatch-Cache*
Washington: Colville, Gifford Pinchot, Mt. Baker-Snoqualmie, Okanogan-Wenatchee, Olympic
Wyoming: Bighorn, Bridger-Teton, Medicine Bow, Shoshone
** - Forest overlaps into an adjacent state but is mostly within the state identified*

A Call for Recreational Parity on National Forest Lands in Winter

Over the past twenty years, the mix of winter recreational uses on the national forest lands in the West has become grossly imbalanced. Where once insignificant in number and limited in reach, snowmobiles now dominate national forest lands in winter, overpowering other winter users and impacting ecosystems across that forest land.

This report shows that the winter opportunities for motorized use on national forest lands in the West far exceed the winter opportunities for non-motorized use. There are enough groomed snowmobile routes on the forest lands in the Western Snow Belt states covered by this report to cross the United States six times. In most of these forests, more than 92 percent of the groomed trails are open to snowmobiles, and well more than two thirds of the forest acreage is open to snowmobiles

Yet, according to the Forest Service's own data, winter non-motorized users in these forests exceed winter motorized users by a significant amount, 5.6 million annual cross-country skier and snowshoer visits to 4.4 million annual snowmobile visits.

The disparity in the miles of routes and the number of forest acres open to snowmobiles and those that are closed to snowmobiles and the adverse impacts, including noise, exhaust, safety concerns and tracks, that snowmobiles have on the human-powered recreation experience must be addressed. It is time to bring management of forest lands back in balance. It is time to "promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands" as directed by Presidential Order 11644.

Separation of Uses: A Successful Case Study

The Wood River Valley area of the Sawtooth National Forest can serve as a model for how winter use on the national forest lands should be managed. There, the accessible forest lands have been roughly divided up in winter so that 50 percent of the national forest non-wilderness acreage is open to motorized use and 50 percent is preserved for non-motorized use, and thus, closed to motorized use. The areas were designated motorized or non-motorized based on the historical use patterns, suitability of terrain, accessibility, and the location of special use permittees such as Nordic centers, huts, and outfitters within an area. Both motorized and non-motorized allocations include areas of significant size as to allow snowmobilers to utilize their machines' capabilities as well as to allow cross-country skiers and snowshoers to recreate beyond the sound range of snowmobiles. In one non-motorized area, snowmobile riding is permitted on trails only. In another area of the forest, the winter season is divided, with that area being closed to snowmobiles through March 14 and open to snowmobiles as of March 15.

Notwithstanding the designation of motorized or non-motorized winter use, wildlife closures overlay these areas, and are mandated by Forest Service biologists as necessary. Snowmobilers, cross-country skiers and snowshoers alike recognized the importance of protecting winter wildlife over their recreational needs, and thus, agreed that all would abide by such closures.

The combination of equal opportunity and access for motorized and non-motorized users along with agreed-upon wildlife closures is a win-win situation. Winter motorized uses are permitted to continue on hundreds of thousands of acres of forest lands. Non-motorized winter users have a similar amount of acreage available for the type of experience they desire. Conflicts are, thus, greatly reduced and the health of the forest environment takes precedence over all uses, whether motorized or non-motorized.

Photo courtesy of Scott Bischke

FOIA REQUESTS

During the years 2003 and 2004, Winter Wildlands Alliance submitted Freedom of Information Act (FOIA) requests to all of the forests listed in Table 2 and compiled the data presented in this report.

It is important to note the following with respect to the data:

1. Some minor discrepancies appear between the total of forest acres, open and closed acres, and wilderness acres. This is because some forests administer lands technically within other forests and because forest land and boundaries are routinely modified.
2. All numbers are best estimates based on the information obtained.
3. The data, ratios and percentages presented in this report apply only to national forest land. The number of groomed trails or acreages of National Park Service lands, BLM lands, state lands, or other public lands are not included in this report.
4. A copy of the original FOIA request is attached as Appendix 1 to this Report. Appendix 2 is a modified request that was submitted when it was believed that the data obtained was incomplete, inaccurate, or incorrect, or that the request was misinterpreted.
5. In compiling the data, the following priority scale was utilized if there were omissions, variations, or inconsistencies in the data obtained:
   a. Responses to FOIA requests
   b. Follow up phone calls with the various ranger districts' winter recreation staff and FOIA staff to verify data
   c. The particular national forest's website, including a review of the forest plan if it was posted, all details posted on the website about cross-country skiing and snowmobiling routes and grooming information, all maps posted on the website, and wilderness information on the site
   d. Forest travel plan maps
   e. Email responses from snowmobile clubs as to miles of groomed trails
   f. National, state and local snowmobile and cross-country ski associations, clubs, and maps posted on the web detailing miles and locations of groomed trails
   g. Wilderness.net website
6. Where there was any doubt about the estimate of "acres closed to snowmobiles," if the exact figure was not provided in the FOIA response, the estimate is purposely generous to avoid any claim that the figure is underreported.
   a. If the estimate was based upon the travel maps provided, areas on the travel maps shown as "closed to snowmobiles except on designated routes" were entirely included in "acres closed to snowmobiles." This means that even though the acreage is counted as closed to snowmobiles, that acreage may have a web of snowmobile trails through it. This procedure was justified on the basis these snowmobile routes would usually be counted in the "miles of groomed snowmobile routes" even though cross-country skiers may be able to hear snowmobiles from any point in that closed area or are required to share trails with snowmobiles.

b. If the estimate was based upon a forest plan, the acreage was calculated based upon the total number of acres in all of the management areas that are closed to motorized vehicles. These areas are generally the wilderness areas, research natural areas, and those areas classed as semi-primitive non-motorized. Several forests, however, allow snowmobiles in semi-primitive non-motorized areas while not stating so in the forest plan. Thus, it is believed that the estimates for "acres closed to snowmobiles" are generous, and that the acreage available for snowmobiles is even greater than shown.

7. Wilderness acres are included in "acres closed to snowmobiles." As noted in the text, most of these acres, due to their remoteness and distance from plowed trailheads, are inaccessible to skiers.
8. The forests vary in their terminology. Some forests distinguish between "designated" routes, "trails," and "roads." Some forests count every summer trail as a potential cross-country trail even though there is no grooming. For consistency throughout all the forests, only "groomed miles" were counted. Ungroomed routes are picked up in the numbers of acres of open and closed.

NVUM DATA

Existing national forest plans and other agency needs mandate visitor use monitoring. Therefore, the National Forest Service instituted the National Visitor Use Monitoring project in 2000.[81] NVUM was developed to provide statistically reliable estimates of visitor use on national forests throughout the United States.

Among other measures, NVUM reports visitation estimates using a standard definition for a "national forest visit" in order to provide comparable estimates of visitor use. A "national forest visit" is: "The entry of one person to a national forest to participate in recreation activities for an unspecified period of time. A national forest visit can be composed of multiple site visits."

In addition to estimating the numbers of visitors, the NVUM program obtains descriptive information about national forest visitors, including the activity in which the visitor participated. Included in the list of activities is snowmobiling and cross-country skiing/snowshoeing. Telemark or alpine touring in the backcountry is not accounted for in the NVUM surveys. Therefore, the visitation numbers for human-powered activities are likely higher than reported in the NVUM surveys.

It is important to note that the results of the NVUM activity analysis DO NOT identify the types of activities visitors would like to have offered on the national forests. The results also do not measure "displaced forest visitors," those who have stopped visiting the forest because the activities they desire are impeded to such a degree as to be rendered unenjoyable. Since there are far fewer miles of groomed non-motorized trails on most of the national forests and since some cross-country skiers have in fact stopped participating on some forests because of the presence of snowmobiles, the NVUM visitation numbers likely under-represent the number of potential human-powered recreationists in these forests.

In reporting the amount of visitation to a forest for a particular activity, the NVUM surveys report visitation estimates only down to .01 percent of total forest visits. Thus, some forests show visitation rates of zero percent for the activities of snowmobiling or cross-country skiing/snowshoeing. This is usually the case in forests that do not have any groomed trails. For purposes of this report, it was assumed that a NVUM report of 0 percent visitation means less than .005 percent visitation and a NVUM report of .01 percent visitation means greater than or equal to .005 percent visitation.

Forests that are jointly administered, like the Medicine Bow-Routt National Forest have NVUM data for each forest. Thus, to arrive at the users per mile and per acre for the jointly administered forest, the user numbers for each activity were calculated for each forest and then totaled and a new joint percent calculated for the combined forests.

SCORP DATA

The Land and Water Conservation Fund was created by Congress in 1964 to provide funds for, among other things, matching grants to states for outdoor recreation projects. Under the program, state recreation agencies are encouraged to determine statewide outdoor recreation trends and demands. This data is then compiled into a Statewide Comprehensive Outdoor Recreation Plan, (SCORP), based on a planning horizon of 10 years. The format of the plans varies from state to state but most include data about the number of people participating in the state annually in snowmobiling, cross-country skiing and snowshoeing. The data obtained from these plans was used where the NVUM data showed no snowmobile or cross-country ski/snowshoe visitation, or to corroborate or question NVUM figures.

State Summaries:

Several national forests extend beyond state boundaries. However, these overlaps are generally small. Since one of the purposes of this report is to gain an accurate picture of each state's winter situation, each forest is listed and analyzed in the state in which the majority of that forest is located. For example, of the approximately 1.7 million acres encompassing the Rogue River-Siskiyou National Forest, only about five percent of the forest lies within the state of California and the rest is within Oregon. Therefore, that forest is included in the table and analysis of Oregon National Forests.

Not all of the national forests within the states of California, Washington and Oregon are included in this report. Certain national forests have not been included, either because they do not receive regular or any snow, or there is little, if any, snowmobile or cross-country ski or snowshoe use in that forest. Only the forests that receive regular snow are included in this report.

A few national forests prohibit snowmobile use unless there is minimum snow depth. For example, the Umpqua National Forest prohibits snowmobile use in areas with less than a foot of snow cover. Therefore, in these cases, it is difficult, if not impossible, to estimate acres open and closed to snowmobiles under those circumstances and this report makes no attempt to do so.

The California national forests contain:
- 2,421 miles of groomed winter trails
- 2,258 miles of groomed trails open to snowmobiles
- 163 miles of groomed trails closed to snowmobiles

See Table A.

The California national forests contain:
- 14,716,955 acres of land
- 9,546,748 acres of land open to snowmobiles
- 2,133,659 acres of non-wilderness land closed to snowmobiles
- 2,897,548 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the California forests show there are an estimated:
- 1,367,060 cross-country ski and snowshoe visits annually
- 325,451 snowmobile visits annually

See Table B.

These numbers show that on national forest land in California, there are 14 times more miles of groomed motorized trails than non-motorized even though the NVUM participation figures show that statewide there are four times more skier and snowshoer visits than snowmobile visits. This disparity results in a density of 8,387 skier and snowshoer visits per non-motorized mile compared to 144 snowmobile visits per motorized mile, a ratio of 58 to one.

Only two of Tahoe National Forest's 244 groomed miles are designated non-motorized despite 125,000 annual skier and snowshoer visits in that forest versus 11,000 annual snowmobile visits. This results in a ratio of 1,394 users per groomed non-motorized mile to one user per groomed motorized mile.

Shasta-Trinity National Forest's ratios are equally disparate. That forest shows 99,000 annual skier visits and 6,600 annual snowmobile visits, yet only 18 miles of 278 groomed miles of trails are non-motorized. This results in a density of 5,500 skier visits per non-motorized mile versus 25 snowmobile visits per motorized mile.

In Inyo National Forest, where there are 817,000 annual skier visits and 114,000 annual snowmobile visits, and where cross-country skiing is identified as one of the top primary activities of users, only 12 miles of 142 groomed miles of trails are non-motorized.

Users in Klamath National Forest also identified cross-country skiing as one of the top primary activities, and in that forest the 40,000 skier visits far outnumber the 8,400 snowmobile visits, yet only 12 miles of the 144 groomed miles of trails are non-motorized.

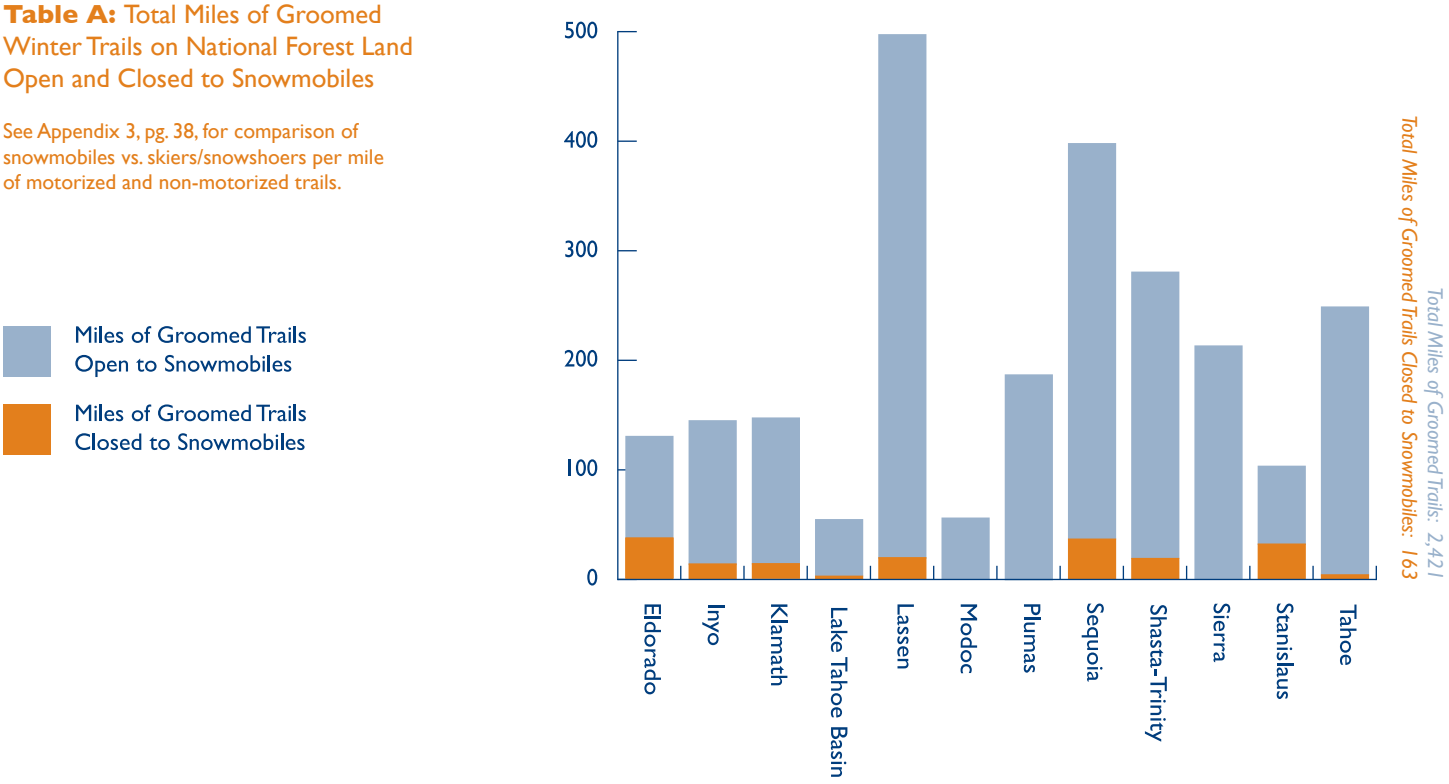
Not a single one of Sierra National Forest's 209 miles of groomed trails is designated non-motorized, despite six times more annual skier and snowshoer visits – 75,000 – than annual snowmobile visits – 12,000.

Lake Tahoe Basin has only one mile of non-motorized trail out of 51 total groomed miles despite 10,000 more annual skier visits than snowmobile visits.

Not one of Plumas National Forest's 183 miles of groomed trails is non-motorized despite 9,000 annual skier visits on the forest.

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



In Tahoe National Forest, where skiers and snowshoers outnumber snowmobilers 11 to one, only one in ten acres is designated non-motorized.

Statewide, despite the fact that non-motorized winter users outnumber snowmobilers four to one, only about one third of the total forest acres are designated non-motorized, more than half of which are in wilderness.

The NVUM survey data is consistent with statewide surveys, where it has been found that cross-country skiers outnumber snowmobilers almost two to one without any accounting for the additional numbers of snowshoers and backcountry skiers.[82]

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

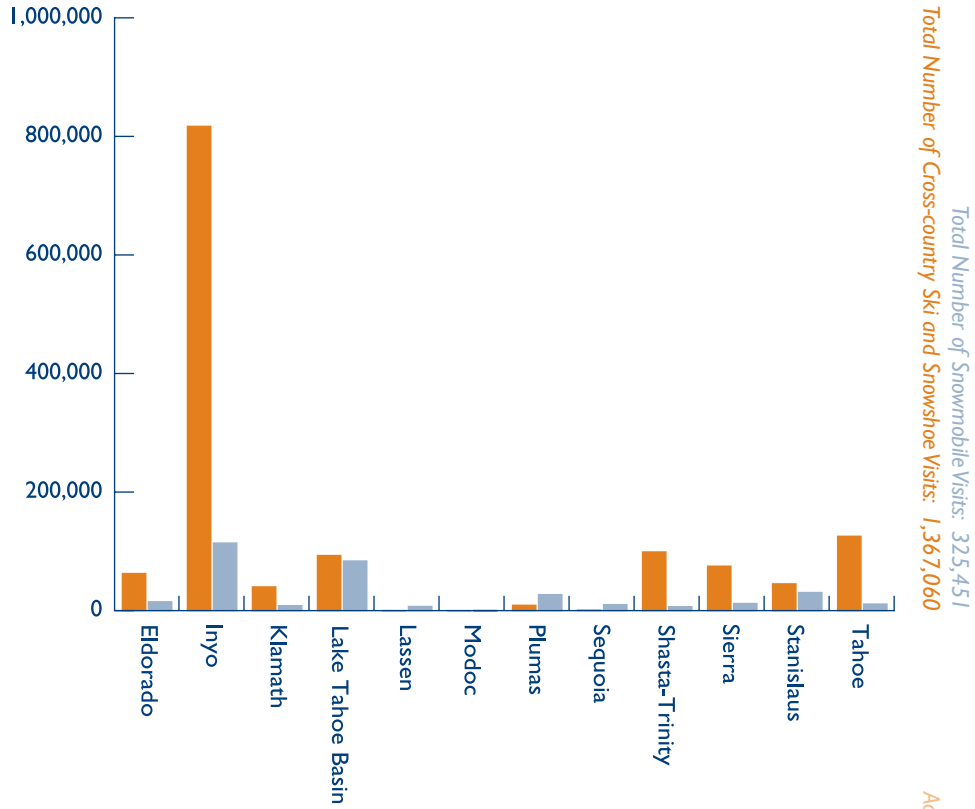
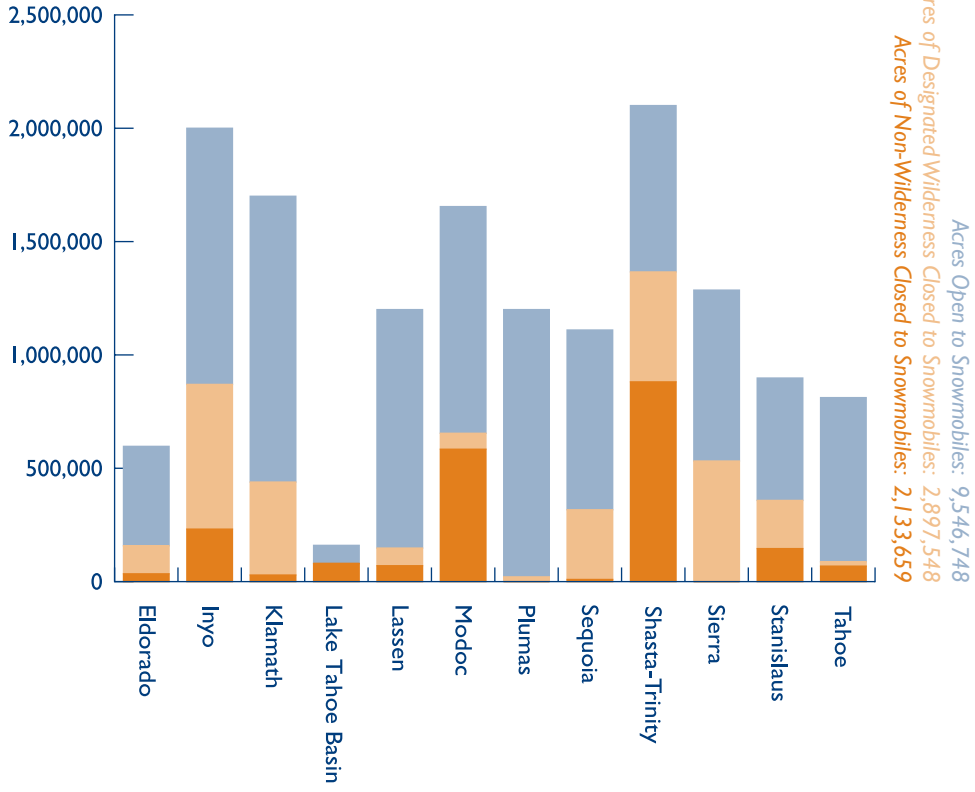


Table C: National Forest Acres Open and Closed to Snowmobiles



The Colorado national forests contain:
- 2,384 miles of groomed winter trails
- 2,133 miles of groomed winter trails open to snowmobiles
- 251 miles of groomed trails closed to snowmobiles

See Table A.

The Colorado national forests contain:
- 14,119,841 acres of land
- 9,355,419 acres of land open to snowmobiles
- 1,470,939 acres of non-wilderness land closed to snowmobiles
- 3,205,994 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Colorado forests show there are an estimated:
- 2,018,800 cross-country ski and snowshoe visits annually
- 1,345,660 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Colorado, there are nine times more miles of groomed motorized trails than non-motorized, yet the NVUM data shows 50 percent more skier and snowshoer visits than snowmobile visits. Statewide, there more than 2 million skier visits annually and 1.3 million snowmobile visits annually. This disparity results in a density of 8,043 skier and snowshoer visits per mile of groomed non-motorized trail compared to only 631 snowmobile visits per mile of groomed motorized trail.

This situation is mirrored in the individual forests throughout the state. In the Arapaho-Roosevelt National Forest, not one mile of 255 miles of groomed trails is designated non-motorized. Yet, NVUM surveys in this forest show that cross-country skier and snowshoer visits outnumber snowmobile visits five to one. This leaves no non-motorized groomed trail experience for the 868,000 skier and snowshoer visits on this forest land.

A similar situation exists on the Pike-San Isabel National Forest. Non-motorized users greatly outnumber snowmobilers, yet only 10 of 150 groomed miles of trail are designated non-motorized. This results in a density of 1,170 skier and snowshoer visits per groomed non-motorized mile compared to one snowmobile visit per groomed motorized mile.

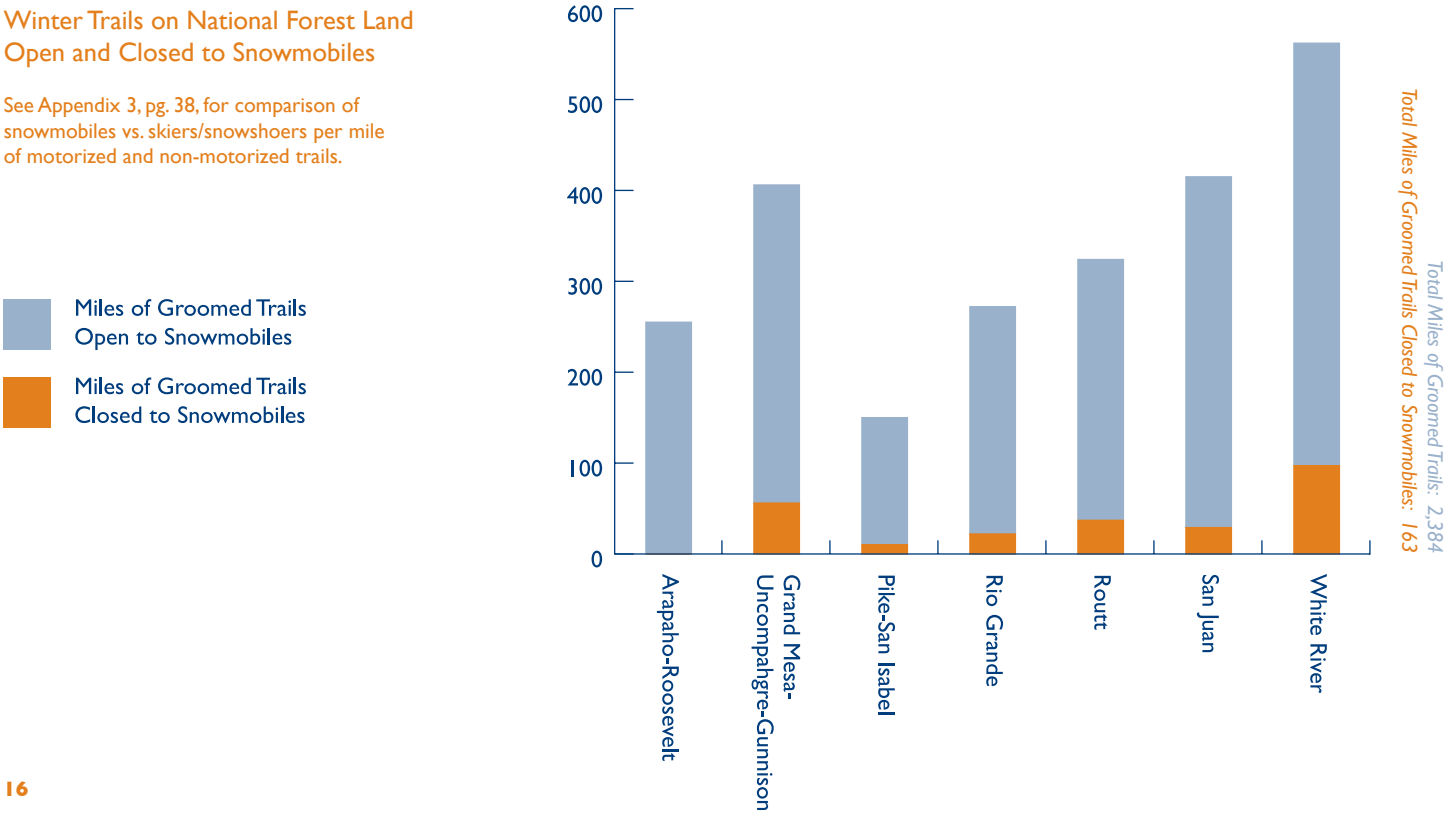
In the White River National Forest, cross-country skiing is one of the primary visitor activities, with double the number of annual skier and snowshoer visits as snowmobile visits. Yet, only one fifth of the groomed trails are non-motorized. This results in a density of 6,300 cross-country skier and snowshoer visits per groomed non-motorized mile versus 709 snowmobile visits per groomed motorized mile.

In the San Juan National Forest, there are twice as many annual cross-country skier and snowshoer visits as snowmobile visits. Still, only 29 of a total of 415 miles of groomed trails are non-motorized.

The same disparity exists with respect to the forest acres open and closed to snowmobiles. Only one-third of the forest lands in Colorado are closed to snowmobiles, two-thirds of which are wilderness areas. This results in a density of 10 times more cross-country skier and snowshoer visits per non-motorized non-wilderness acre than snowmobile visits per motorized acre.

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



Since the NVUM activity analysis does not identify the types of activities visitors would like to have offered on the national forests or account for displaced forest visitors, it is probable that the non-motorized visitor numbers would be even higher if there were more non-motorized groomed trails and acres available for cross-country skiers and snowshoers.

Forests that are jointly administered supplied total acreages and miles for the combined forests, yet the NVUM data is for each forest separately. Thus, to arrive at ratios of user numbers to miles and acres, the total visits for each forest were added together to determine a combined forest-wide percentage of users for each activity.

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

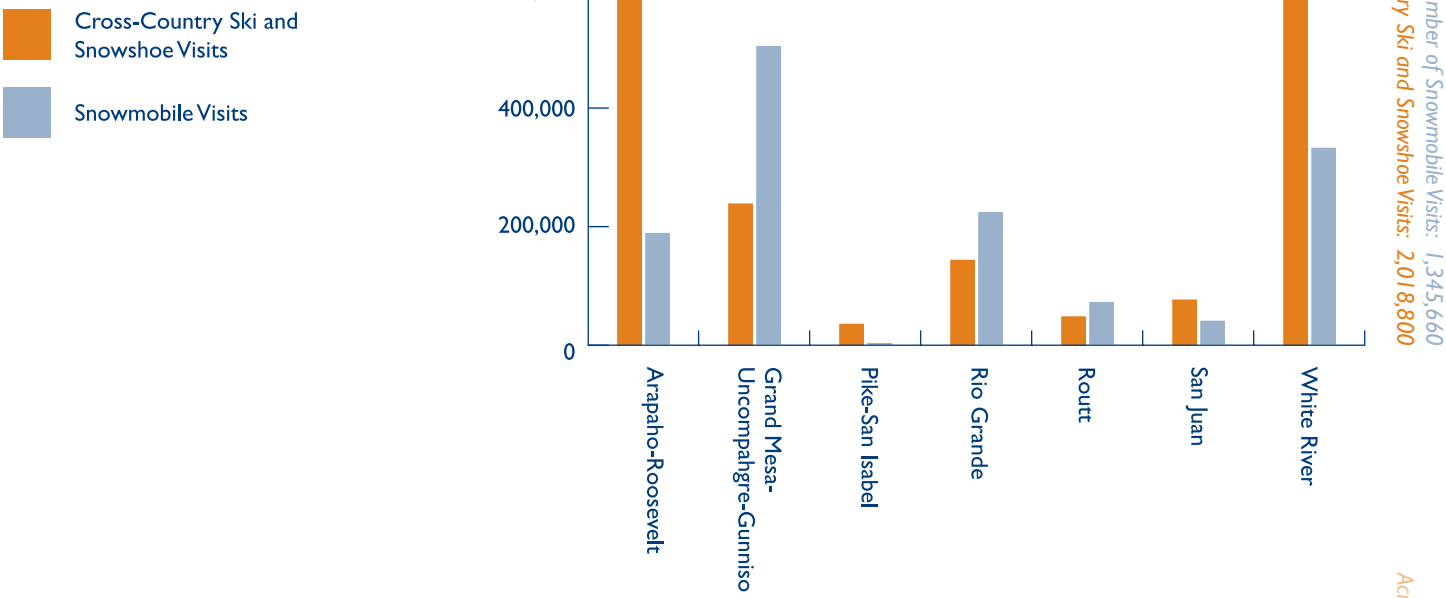
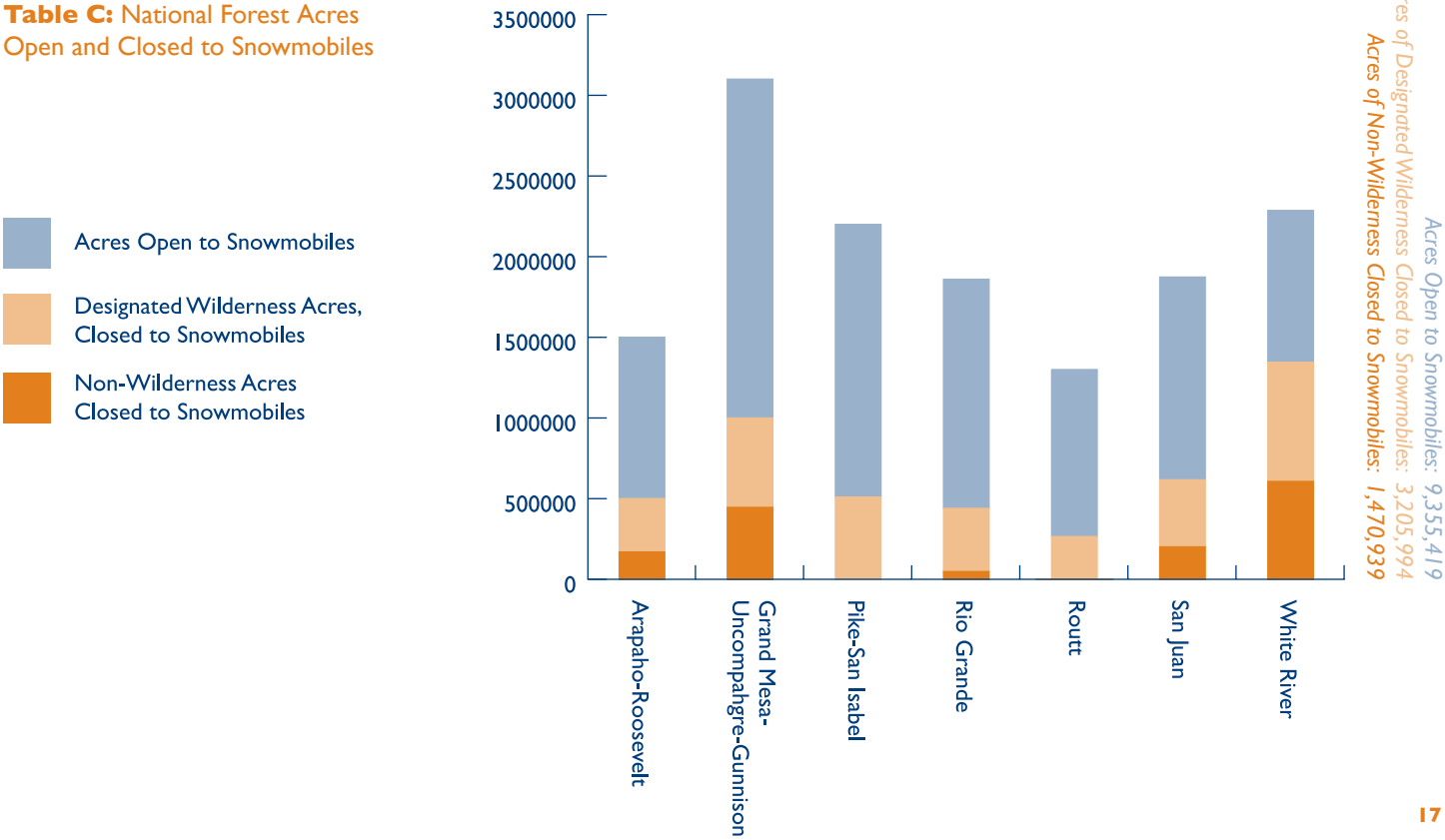


Table C: National Forest Acres Open and Closed to Snowmobiles



The Idaho national forests contain:
- 4,464 miles of groomed winter trails
- 4,137 miles of groomed trails open to snowmobiles
- 327 miles of groomed winter trails closed to snowmobiles

See Table A.

The Idaho forests contain:
- 20,800,000 acres of land
- 14,161,250 acres of land open to snowmobiles
- 2,692,954 acres of non-wilderness land closed to snowmobiles
- 3,967,296 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Idaho forests show there are an estimated:
- 279,000 cross-country ski and snowshoe visits annually
- 877,000 snowmobile visits annually

See Table B.

On national forest land in Idaho, there are 13 times more miles of groomed motorized trails than non-motorized while there are only three times more snowmobile visits than skier and snowshoer visits. This disparity results in a density of 854 skier and snowshoer visits per groomed non-motorized mile compared to only 212 snowmobile visits per groomed motorized mile. These figures would be farther apart if user data from the forests with no groomed non-motorized trails were included.

The Payette National Forest has a total of 237 miles of groomed trails, not one mile of which is designated as non-motorized. This leaves no non-motorized groomed trail experience for the 21,600 cross-country skier and snowshoer visits on Payette National Forest land.

The Boise National Forest has the greatest number of participants in cross-country skiing and snowshoeing in the state, yet of 811 miles of groomed trails, only 34 miles are designated non-motorized. With relatively close numbers of people participating in each sport in that forest, the result is a density of 2,588 skier visits per groomed non-motorized mile versus only 141 snowmobile visits per groomed motorized mile.

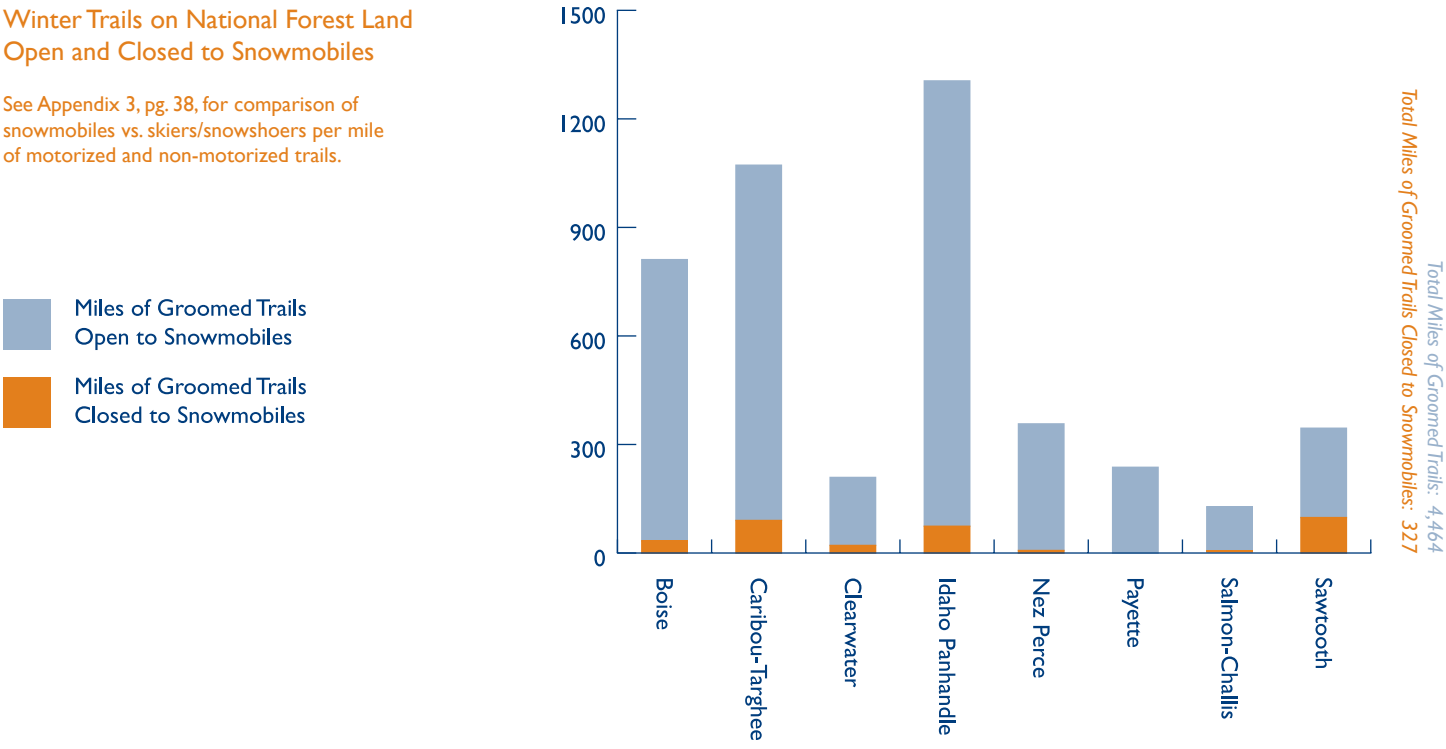
The Idaho Panhandle National Forest has more than four times as many skier and snowshoer visits as snowmobile visits, yet it has 17 times more groomed motorized trails than groomed non-motorized trails.

Only seven of the 357 miles of groomed routes in the Nez Perce National Forest are designated non-motorized, resulting in a ratio of 30 skier and snowshoe visits per non-motorized mile to one snowmobile visit per motorized mile.

Two Idaho state sponsored surveys show much closer participation numbers than those obtained in the NVUM survey. The first, an Idaho Department of Parks and Recreation 2002 report, estimates that there are only one-third more snowmobilers than cross-country skiers and snowshoers in the state, an estimated 237,000 snowmobilers and 176,000 skiers and snowshoers.[83] In that same survey, respondents identified "providing designated cross-country skiing trail systems" as more important than providing more snowmobile trail systems.[84]

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



The second study, a traveler study conducted by the Department of Resource Recreation and Tourism of the University of Idaho in 1999-2000, estimated that 27 percent of both resident and non-resident travelers to Idaho participated in cross-country skiing, 25 percent in snowmobiling and 18 percent in snowshoeing.[85] These studies may be more accurate for Idaho considering that snowmobile registrations in the state of Idaho declined 4.25 percent between 2000 and 2005.[86]

Also, since the NVUM participation rates do not identify the types of activities visitors would like to have offered on the national forests and do not account for those who no longer visit the forest because of lost opportunity for the activities they desire, the great difference in participation rates of the NVUM survey directly reflect the lack of groomed non-motorized trails available on national forest land in Idaho.

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

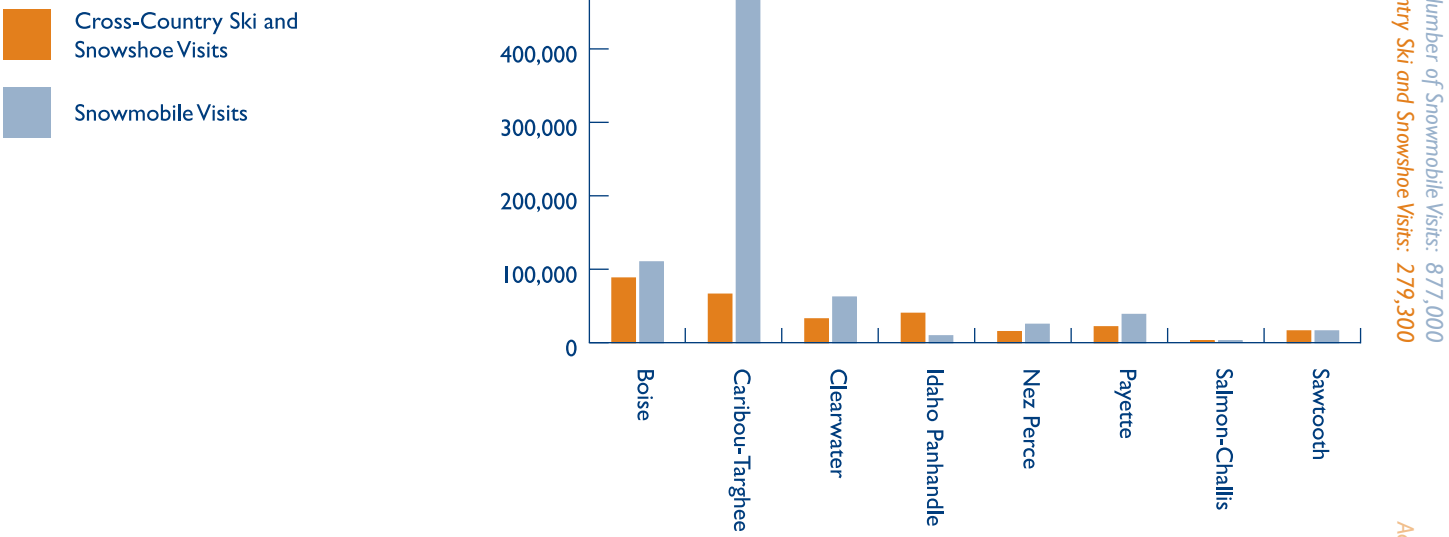
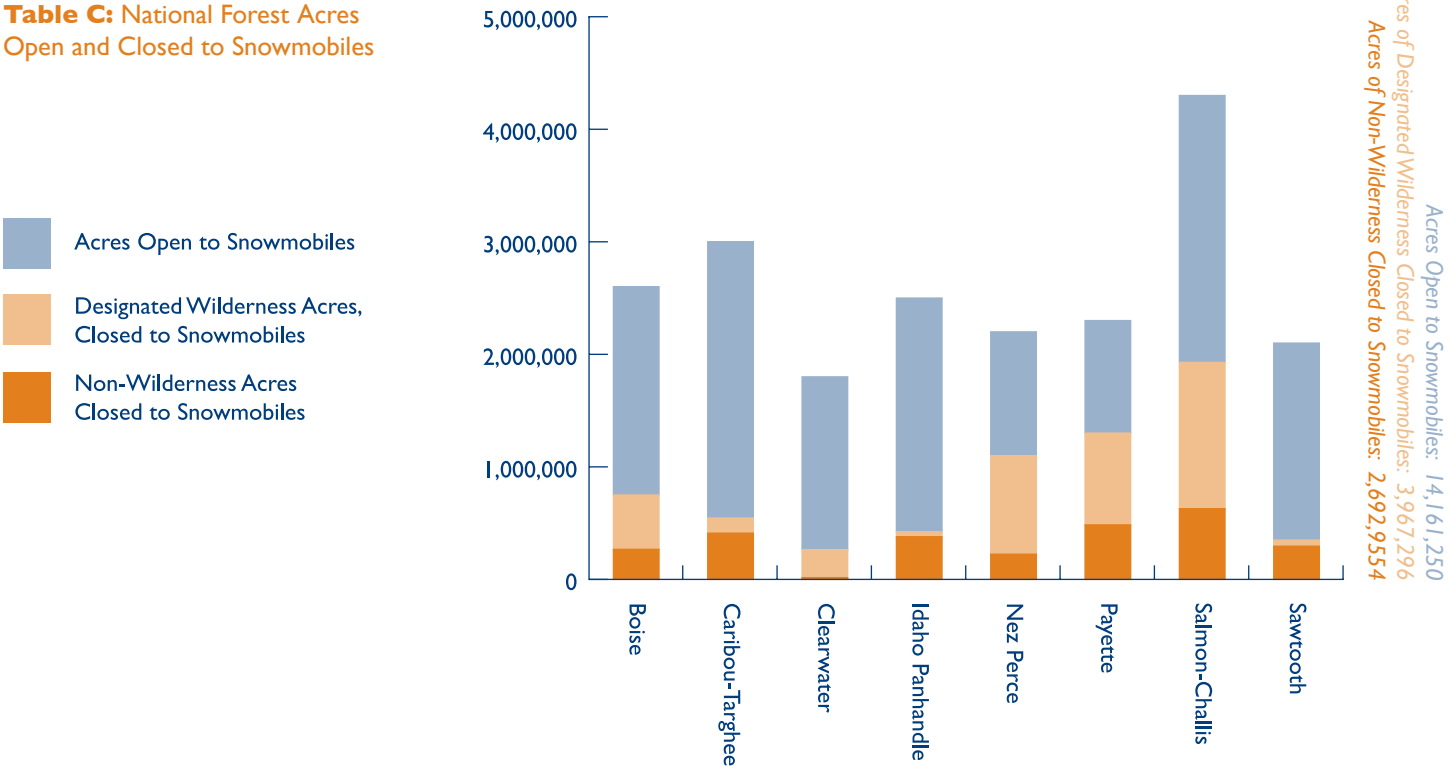


Table C: National Forest Acres Open and Closed to Snowmobiles



The Montana national forests contain:
- 2,278 miles of groomed winter trails
- 2,061 miles of groomed trails open to snowmobiles
- 217 miles of groomed trails closed to snowmobiles

See Table A.

The Montana national forests contain:
- 17,550,000 acres of land
- 11,921,820 acres of land open to snowmobiles
- 1,608,456 acres of non-wilderness land closed to snowmobiles
- 4,009,795 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Montana forests show there are an estimated:
- 370,957 cross-country ski and snowshoe visits annually
- 393,508 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Montana, there are almost 10 times more miles of groomed motorized trails than non-motorized while the number of snowmobile and skier visits are almost equal. This disparity results in a density of 1,709 cross-country skier and snowshoer visits per non-motorized mile versus 191 snowmobile visits per motorized mile.

The Bitterroot National Forest has no groomed trails designated non-motorized even though there are an estimated 11,000 annual skier and snowshoer visits on that forest.

In the Flathead National Forest, cross-country skier and snowshoer visits outnumber snowmobile visits by a margin of 14 to one, yet only one-third of all the groomed trails are non-motorized. This disparity translates to a density of 3,015 skier and snowshoer visits per groomed non-motorized mile compared to 90 snowmobile visits per groomed motorized mile.

The Gallatin National Forest receives slightly more than twice as many snowmobile visits as skier visits, yet it has almost 14 times more miles of groomed motorized trails than groomed non-motorized trail.

Of the 492 miles of groomed trails in the Lolo National Forest, only 18 miles are non-motorized, despite an estimated 17,000 annual cross-country visits. The Helena National Forest has 276 miles groomed for snowmobiles and just 10 miles for skiers.

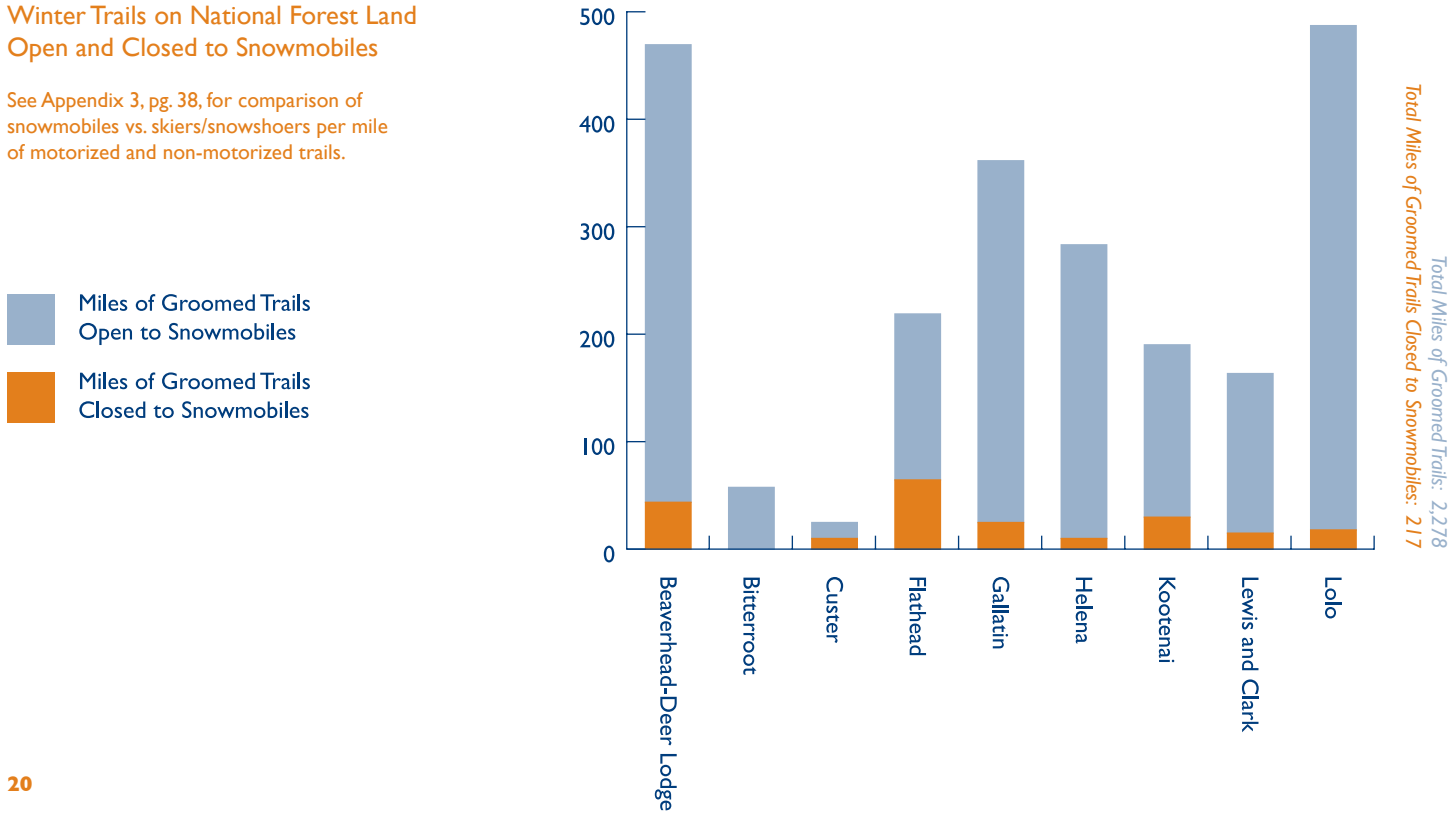
As for skiers per acre, the Flathead National Forest has 17 times more skier visits per non-motorized acre than snowmobile visits per motorized acre. For practical purposes, when wilderness acres are taken out, there are 23 times more skier and snowshoer visits per non-motorized acre than snowmobile visits per motorized acre.

The situation is likely more severe for skiers and snowshoers than the NVUM survey represents since the Helena and Gallatin National Forests did not include snowshoeing as a choice in their NVUM survey and since the NVUM does not account for the impact of a scarcity of non-motorized trails on user numbers.

A survey of more than 4,000 Montanans about their primary recreation activity, conducted by the Montana Department of Health and Human Services, showed that six percent of the respondents participated in cross-country skiing and eight percent

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



participated in snowmobiling.[87] Snowshoeing and backcountry skiing were not included as choices. The same respondents were asked how often they participated in their sport and the answers showed that the cross-country skiers went 9.5 times per month versus the snowmobilers at 2.8 times a month. Of note, fifty percent more respondents cited cross-country skiing than snowmobiling as the having "greatest need of additional facilities or sites" in their county.[88]

The University of Montana Institute for Tourism & Recreation Research (ITRR) conducted a survey of more than 2,600 Montana resident households which revealed participation rates of seven percent for snowmobiling, five percent for cross-country skiing, and two percent for snowshoeing. The study showed non-resident participation at six percent for snowmobiling, four percent for cross-country skiing, and three percent for snowshoeing. [89]

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

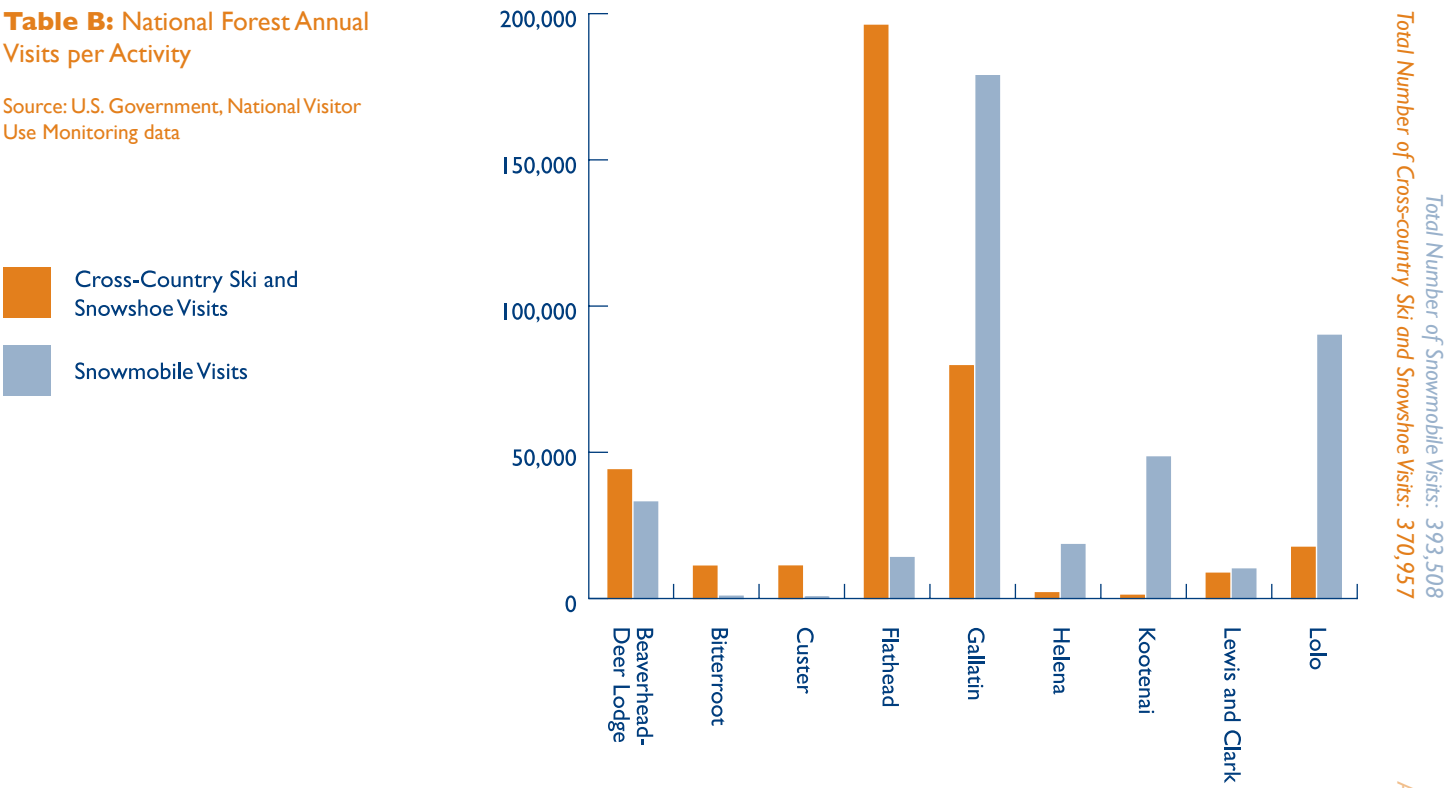
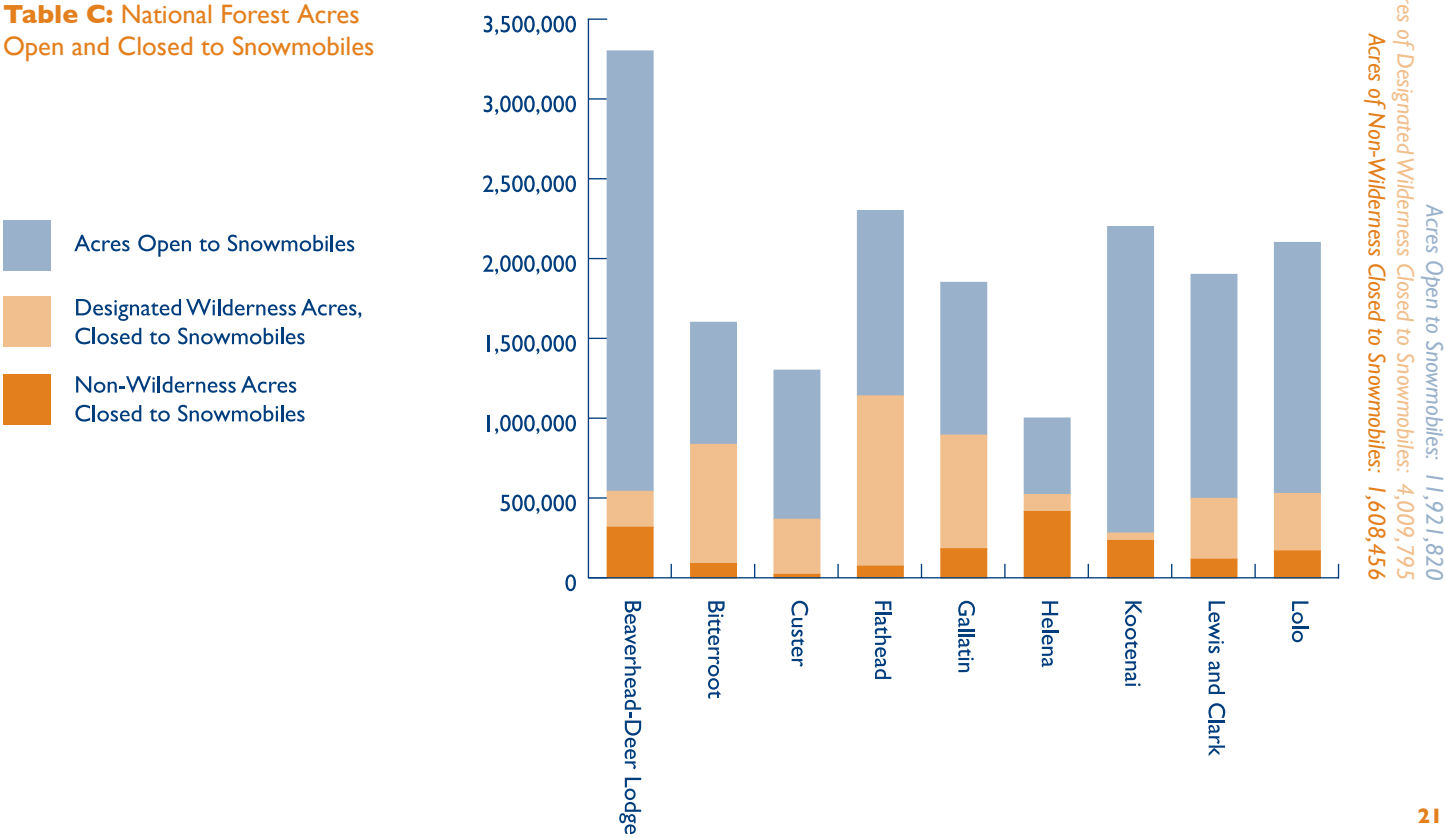


Table C: National Forest Acres Open and Closed to Snowmobiles



Nebraska National Forests

The Nebraska National Forest contains:
- 0 miles of groomed winter trails
- 0 miles of groomed trails open to snowmobiles
- 0 miles of groomed trails closed to snowmobiles

The Nebraska National Forest contains:
- 1,100,000 acres of land
- 1,075,600 acres of land open to snowmobiles
- 16,606 acres of non-wilderness land closed to snowmobiles
- 7,794 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Nebraska National Forest show there are an estimated:
- 208 cross-country ski and snowshoe visits annually
- <1 snowmobile visits annually

See Table B.

These numbers show that of the 1.1 million acres of national forest land in Nebraska, all of which is within the Nebraska National Forest, only 24,400 acres are designated non-motorized. Half of the non-motorized acres are in wilderness areas. Despite NVUM surveys showing definite participation by cross-country skiers and snowshoers, there are no groomed cross-country ski or snowshoe trails at all. Participation despite the absence of non-motorized opportunities suggests that participation rates would well be higher if such opportunities were offered.

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

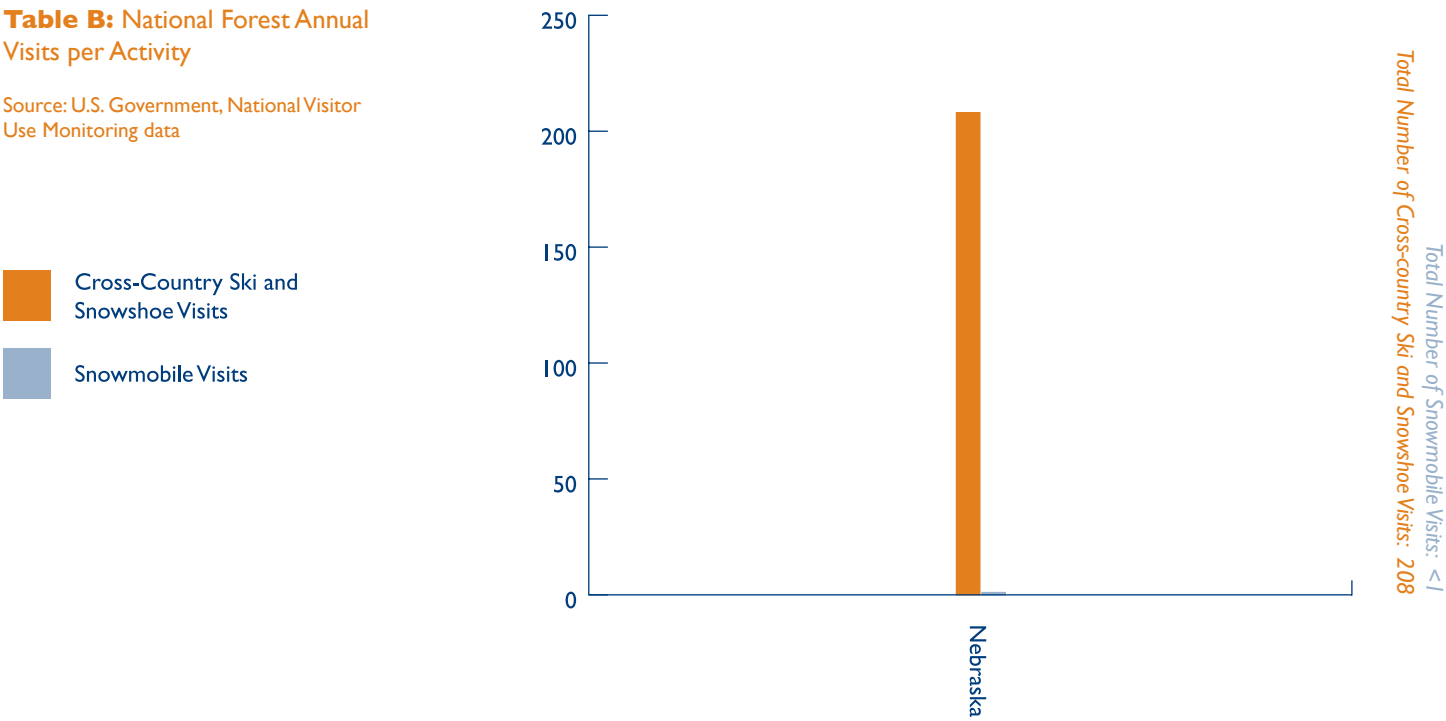
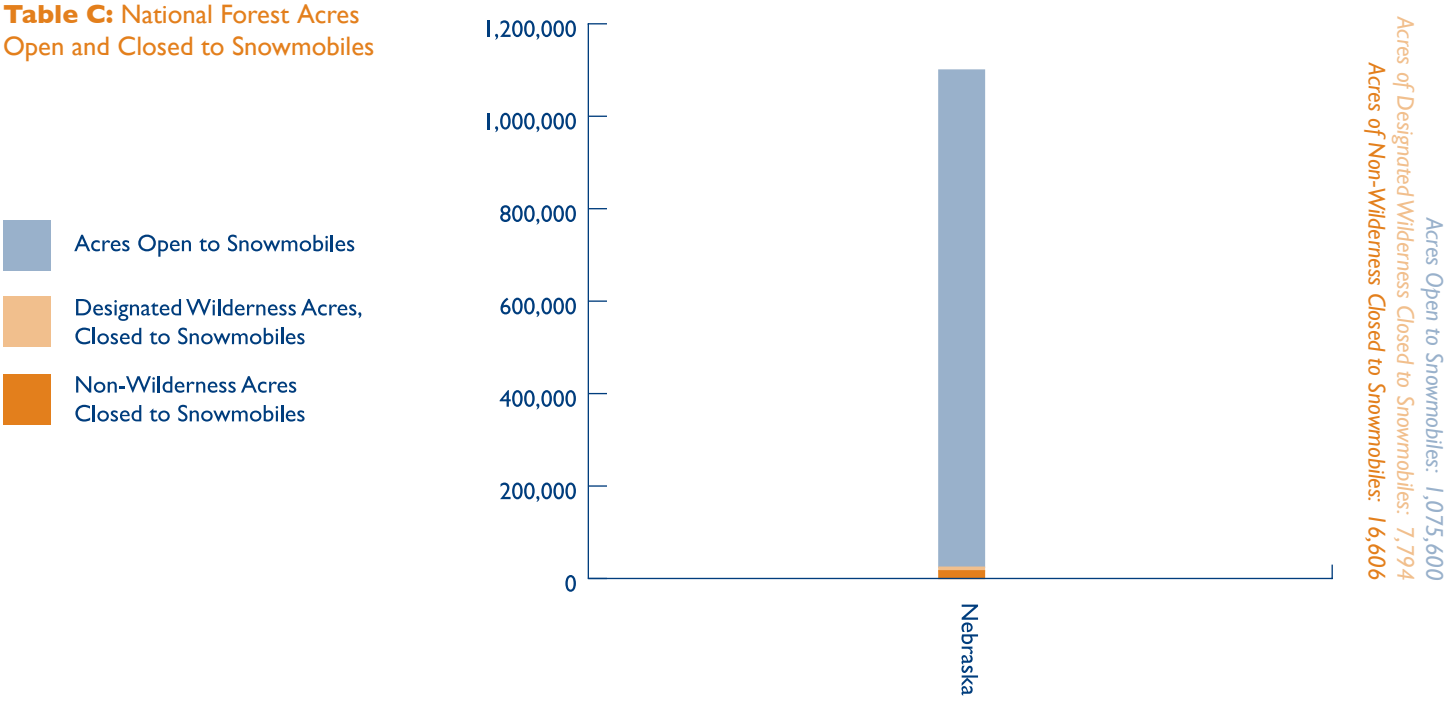


Table C: National Forest Acres Open and Closed to Snowmobiles



The Nevada national forests contain:
- 48 miles of groomed winter trails
- 46 miles of groomed winter trails open to snowmobiles
- 2 miles of groomed trails closed to snowmobiles

See Table A.

The Nevada national forests contain:
- 6,332,500 acres of land
- 5,317,500 acres of land open to snowmobiles
- 10,225 acres of non-wilderness land closed to snowmobiles
- 1,004,775 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Nevada forests show:
- 0 cross-country ski and snowshoe participants annually, and
- 0 snowmobile participants annually

State SCORP surveys show the participation to be:
- 78,000 cross-country ski and snowshoe participants annually
- 65,000 snowmobile participants annually

See Table B.

These numbers show that on the national forest land in Nevada, all of which is within the Humboldt-Toiyabe National Forest, there are twenty-five times more groomed motorized miles of trails than non-motorized, yet the state SCORP surveys show that statewide the number of skiers and snowshoers exceed the number of snowmobilers. According to the Nevada SCORP survey conducted in 2001, 3.8 percent of respondents participated in snowmobiling, 3.1 percent in cross-country skiing, and 1.5 percent in snowshoeing.[90] An estimated 65,000 people participated in snowmobiling and an estimated 78,000 participated in cross-country skiing and snowshoeing in 2001. Using the state figures, the disparity results in density of 39,000 cross-country skier and snowshoer visits per non-motorized mile versus 1,413 snowmobile visits per motorized mile.

Of 6,332,500 million acres of forest land in Nevada, only 10,225 acres are non-wilderness non-motorized. Even including wilderness acres, less than one-fifth of the forest is designated non-motorized.

Further exacerbating the situation, statistics show the mean number of annual outdoor participation days in Nevada for cross-country skiers as 12.2 compared to 8.3 days for snowmobilers.[91]

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.

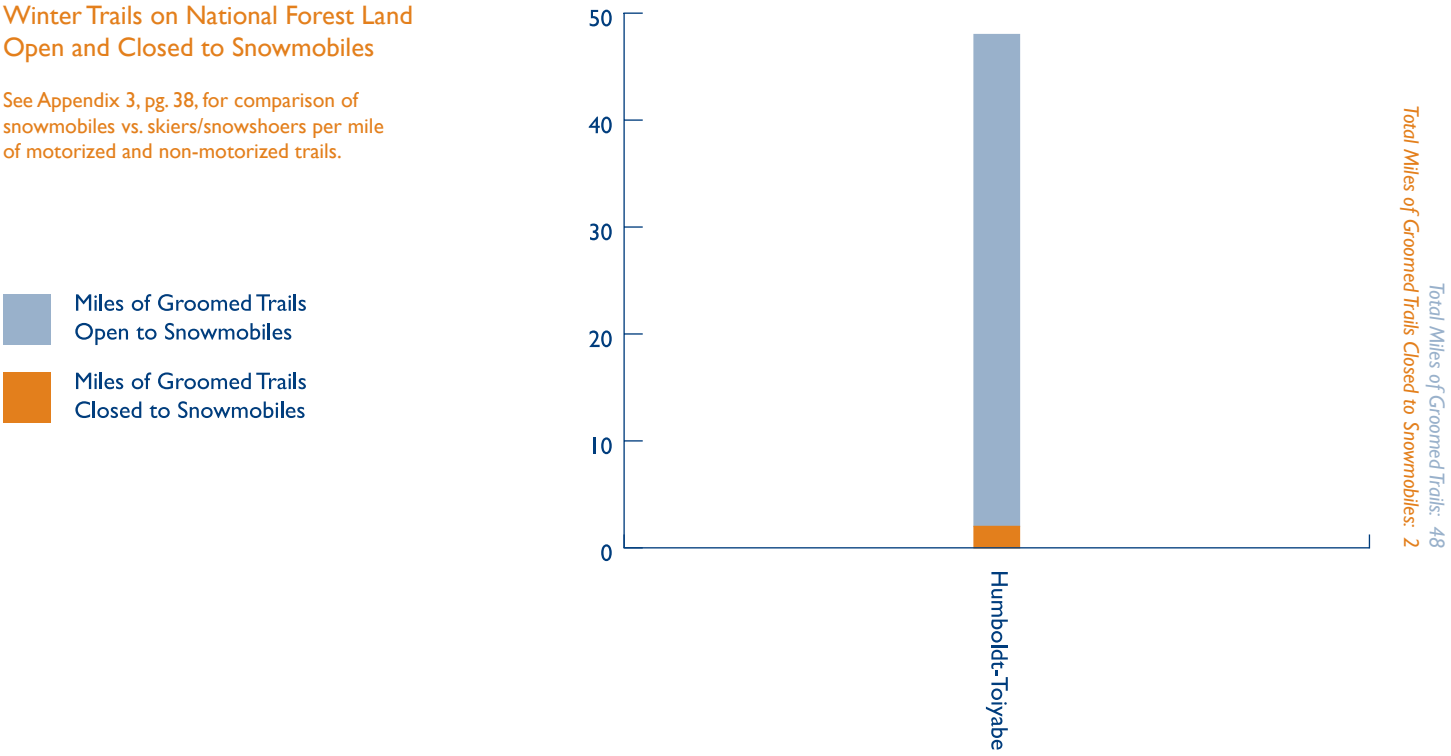
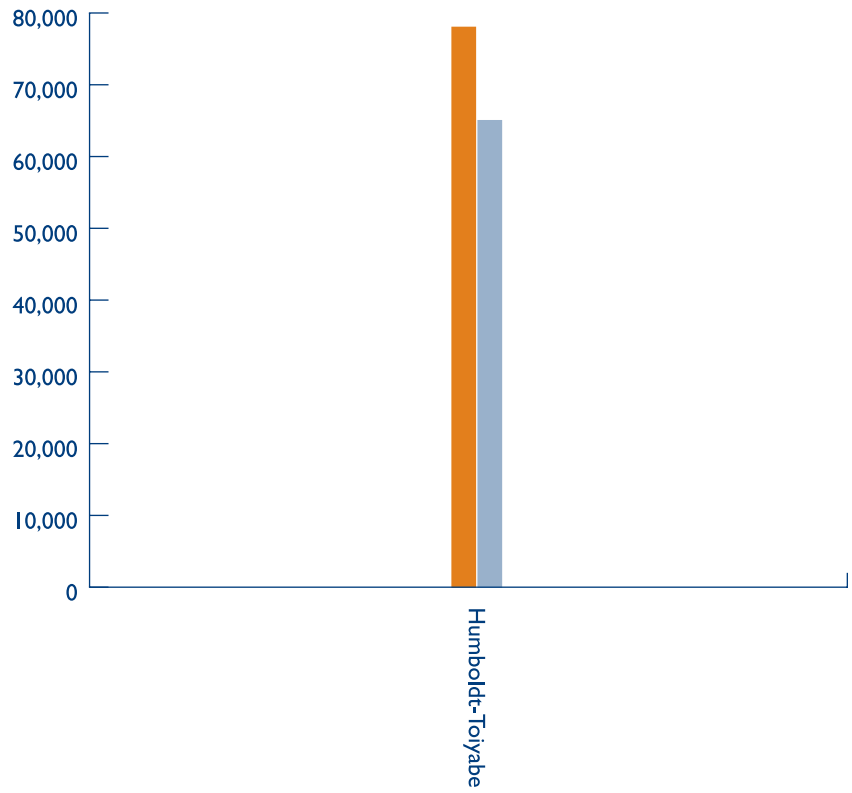


Table B: National Forest Annual Participants per Activity

Source: Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Cross-Country Ski and Snowshoe Participants

Snowmobile Participants



Total Number of Cross-country Ski and Snowshoe Participants: 78,000

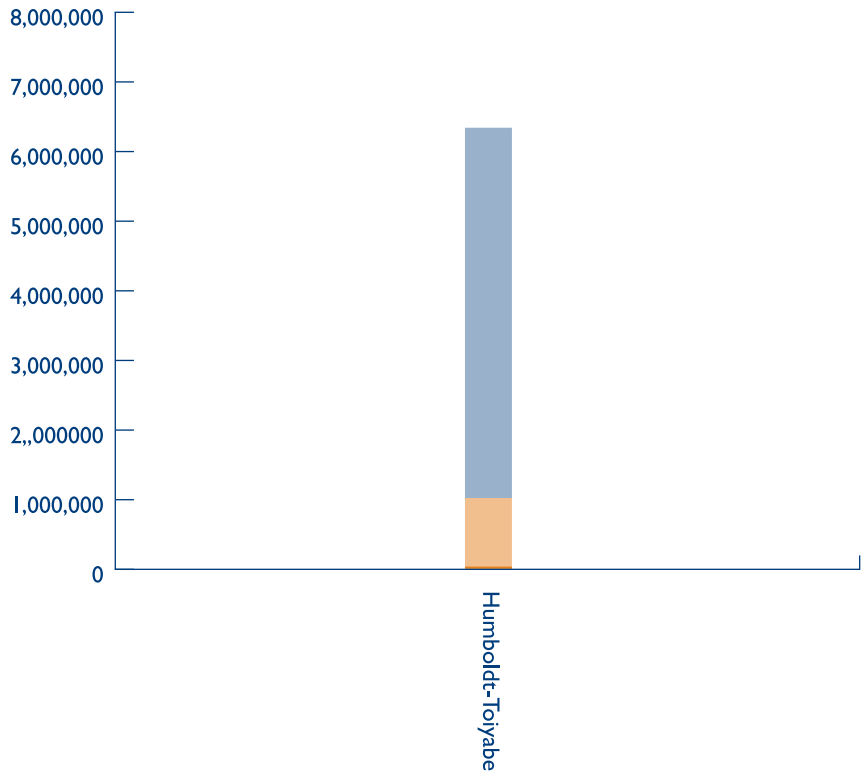
Total Number of Snowmobile Participants: 65,000

Table C: National Forest Acres Open and Closed to Snowmobiles

Acres Open to Snowmobiles

Designated Wilderness Acres, Closed to Snowmobiles

Non-Wilderness Acres Closed to Snowmobiles



Acres of Non-Wilderness Closed to Snowmobiles: 10,225

Acres of Designated Wilderness Closed to Snowmobiles: 1,004,775

Acres Open to Snowmobiles: 5,317,500

The Oregon national forests contain:
- 3,257 miles of groomed winter trails
- 3,043 miles of groomed trails open to snowmobiles
- 214 miles of groomed trails closed to snowmobiles

See Table A.

The Oregon national forests contain:
- 15,942,517 acres of land
- 12,196,335 acres of land open to snowmobiles
- 1,323,764 acres of non-wilderness land closed to snowmobiles
- 2,379,902 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Oregon forests show there are an estimated:
- 458,769 cross-country ski and snowshoe visits annually
- 177,812 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Oregon, there are 14 times more miles of groomed motorized trails than non-motorized even though NVUM participation figures show that statewide there are two-and-a-half times more skier and snowshoer visits than snowmobile visits. This disparity results in a density of 2,144 skier and snowshoer visits per groomed non-motorized mile compared to 58 snowmobile visits per groomed motorized mile.

In Oregon's case, the NVUM data corresponds with the Oregon SCORP. The statewide plan estimates that approximately 2.5 percent of the resident population participates in cross-country skiing versus 1.1 percent in snowmobiling.[92]

The Rogue River-Siskiyou National Forest shows an estimated 80,800 cross-country skier and snowshoer visits and only 3,000 snowmobile visits, yet not one mile of the 250 miles of groomed trails is designated non-motorized.

Mt. Hood National Forest shows the largest number of cross-country skiers and snowshoers of all the forests in the state – 148,000 skier and snowshoer visits compared to 25,000 snowmobile visits – yet only 37 miles of a total of 287 groomed miles are designated non-motorized. Though skiers outnumber snowmobilers by six to one in this forest, only one in seven groomed miles is non-motorized.

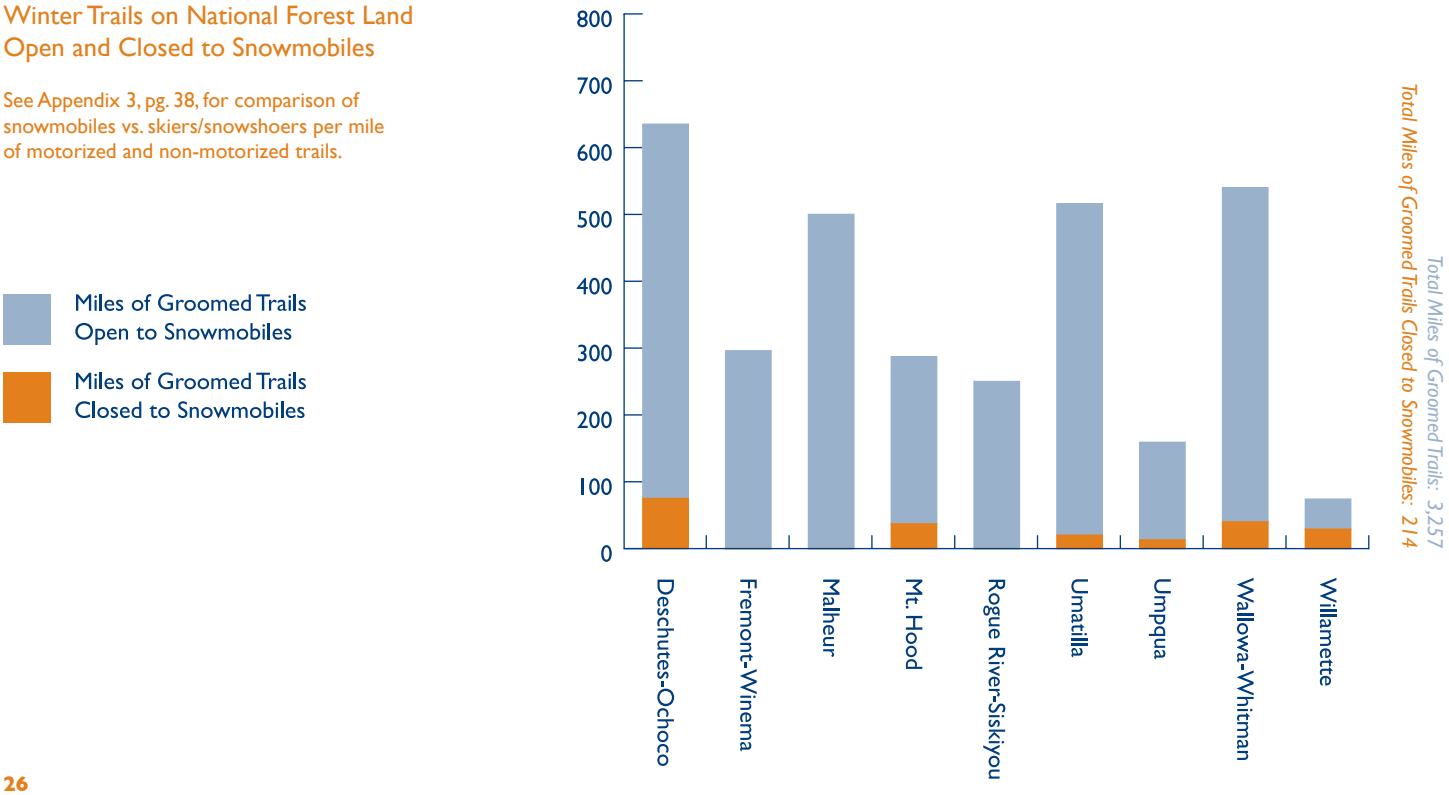
Similarly, in Deschutes-Ochoco National Forests, skier and snowshoer visits outnumber snowmobile visits by nearly three to one, yet only 12 percent of the trails are designated non-motorized. Here, the density is 1,269 skier and snowshoer visits per groomed non-motorized mile versus 66 snowmobile visits per groomed motorized mile.

The Fremont-Winema National Forest has 296 miles of groomed trails, but even with an annual 4,500 skier visits, none of the trails are non-motorized.

Even though there are two-and-a-half times more cross-country skier and snowshoer visits than snowmobile visits in the Oregon national forests, only one-quarter of the forest land is designated non-motorized and almost half of that is wilderness.

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



Siuslaw National Forest was not included since it has almost non-existent snow cover. Umpqua National Forest acreage is impossible to determine due to a forest rule that at least two feet of snow is required to go off trail in certain areas. That amount of snow is usually limited to above 4000-4500 feet elevation making a large part of the forest unavailable to snowmobiles.

Forests that are jointly administered supplied total acreages and miles for the combined forests, yet the NVUM data is for each forest separately. Thus, to arrive at ratios of user numbers to miles and acres, the total visits for each forest were added together to determine a combined forest-wide percentage of users for each activity.

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

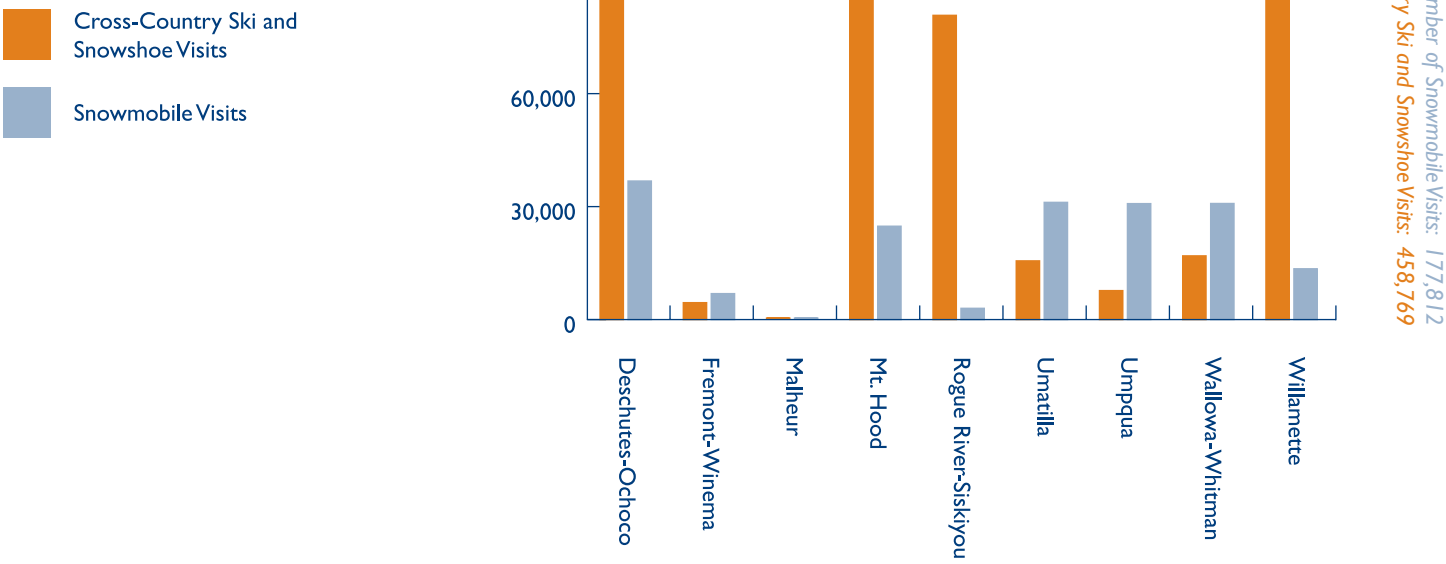
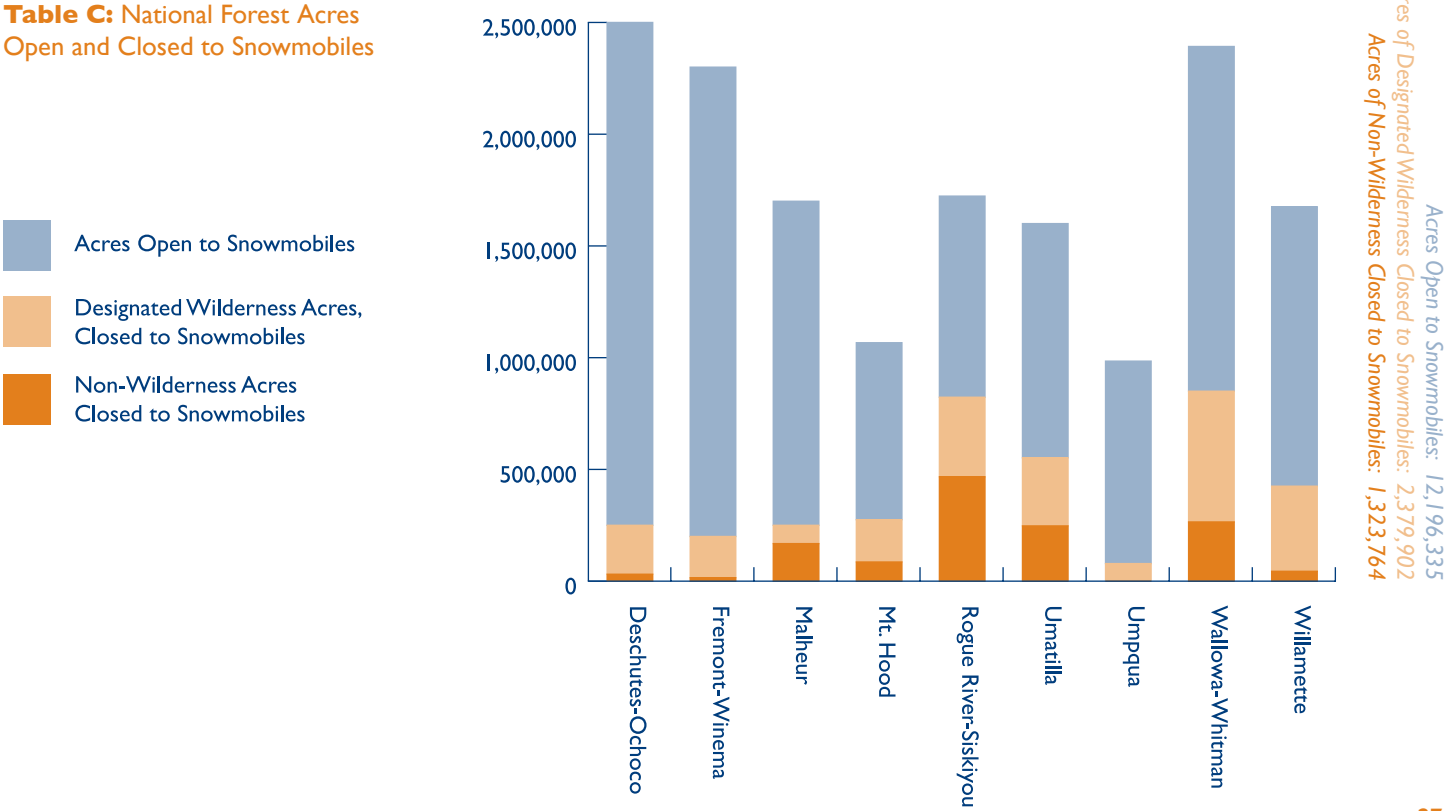


Table C: National Forest Acres Open and Closed to Snowmobiles



The Black Hills National Forest contains:
- 414 miles of groomed winter trails
- 387 miles of groomed trails open to snowmobiles
- 27 miles of groomed trails closed to snowmobiles

See Table A.

The Black Hills National Forest contains:
- 1,200,000 acres of land
- 1,047,000 acres of land open to snowmobiles
- 39,574 acres of non-wilderness land closed to snowmobiles
- 13,426 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Black Hills National Forest show there are an estimated:
- <130 cross-country ski and snowshoe visits annually
- 30,940 snowmobile visits annually

See Table B.

These numbers show that in the Black Hills National Forest in South Dakota, there are 14 times more miles of groomed motorized trails than non-motorized. While the NVUM survey for this forest shows no participation by cross-country skiers or snowshoers, this national forest is an example where the NVUM survey results are likely under-representing non-motorized users due to the lack of non-motorized opportunities.

The South Dakota SCORP survey shows that 18 percent of responding households, or an estimated 11,520 residents, in the Black Hills region participated in snowmobiling, and 10 percent, or an estimated 6,400 residents in cross-country skiing.[93] This disparity results in a density of 237 cross-country skier and snowshoer visits per non-motorized mile versus 30 snowmobile visits per motorized mile.

Thus, while there are at least half as many skiers and snowshoers as snowmobilers in that region, there are 14 times more motorized groomed trails than non-motorized.

Further, of a total of more than 1.2 million acres of national forest land, only 53,000 acres, just four percent of the entire forest, are designated non-motorized.

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.

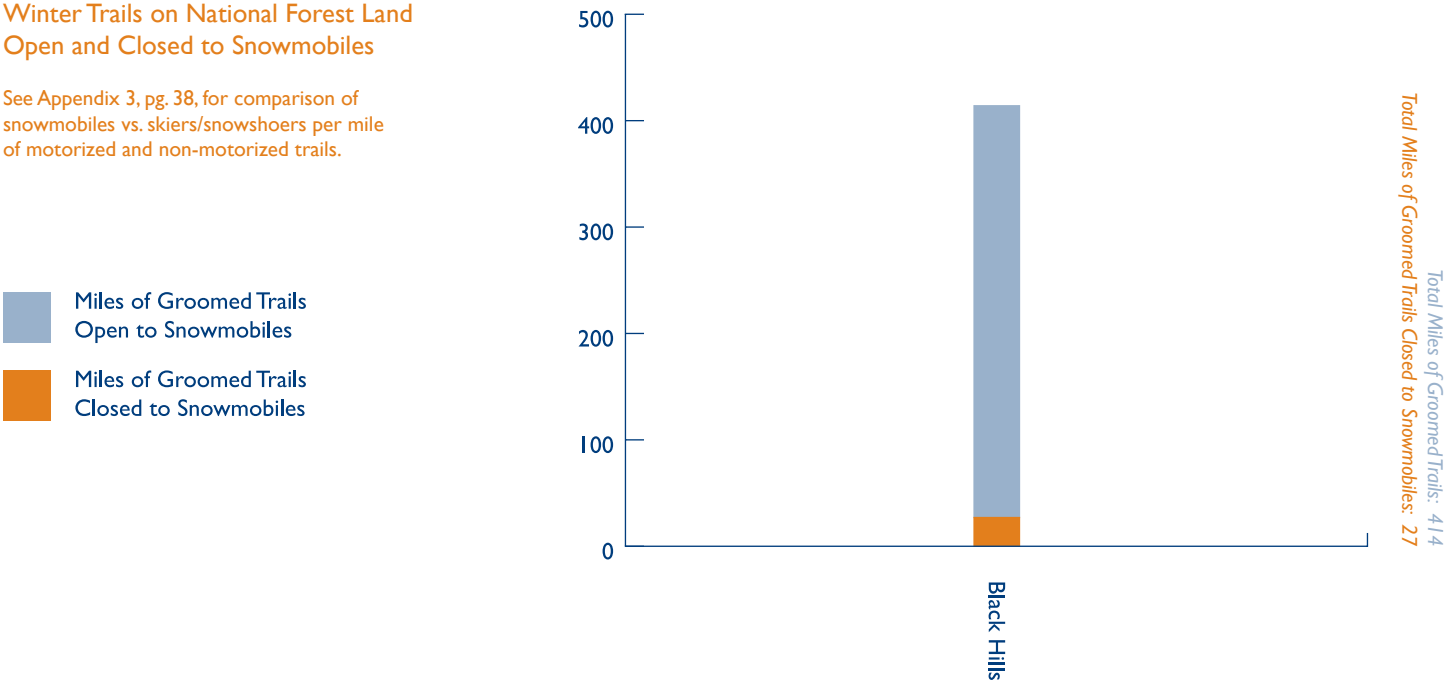
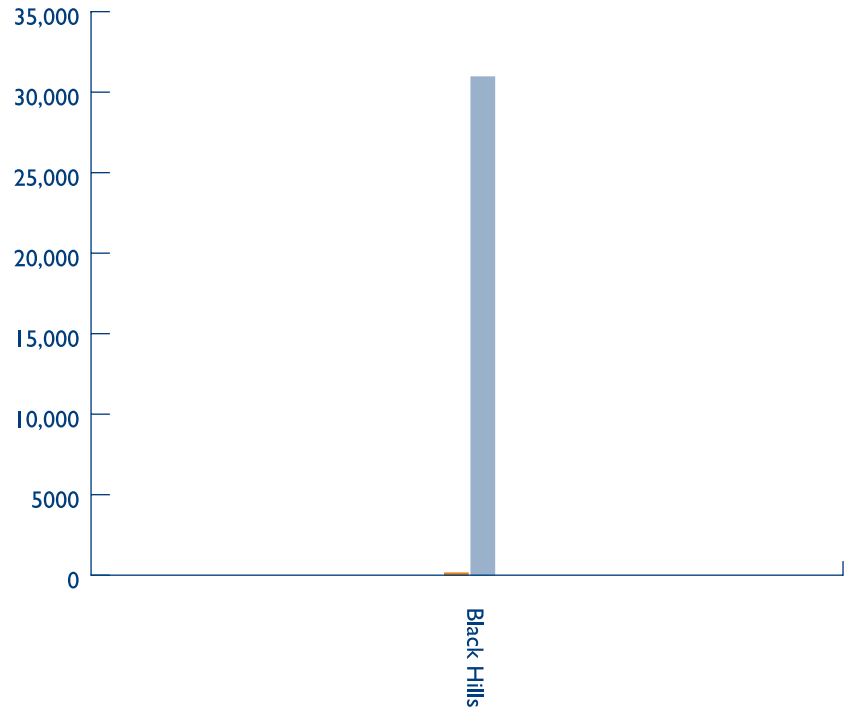


Table B: National Forest Annual Visits per Activity

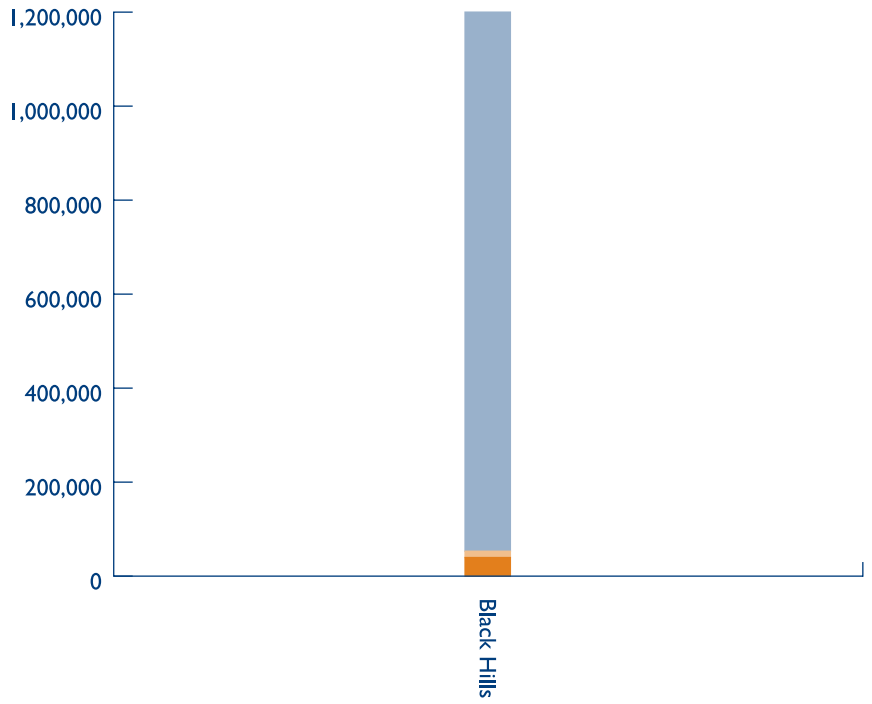
Source: U.S. Government, National Visitor Use Monitoring data



Total Number of Snowmobile Visits: 30,940

Total Number of Cross-country Ski and Snowshoe Visits: 130

Table C: National Forest Acres Open and Closed to Snowmobiles



Acres Open to Snowmobiles: 1,047,000

Acres of Designated Wilderness Closed to Snowmobiles: 13,426

Acres of Non-Wilderness Closed to Snowmobiles: 39,574

The Utah national forests contain:
- 956 miles of groomed winter trails
- 885 miles of groomed trails open to snowmobiles
- 71 miles of groomed trails closed to snowmobiles

See Table A.

The Utah national forests contain:
- 8,351,533 acres of land
- 6,789,063 acres of land open to snowmobiles
- 809,072 acres of non-wilderness land closed to snowmobiles
- 772,027 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Utah forests show there are an estimated:
- 266,670 cross-country ski and snowshoe visits annually
- 326,370 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Utah, there are twelve times more groomed motorized miles than non-motorized, yet only 25 percent more snowmobile visits than skier and snowshoer visits. This disparity results in a density of 3,756 skier and snowshoer visits per groomed non-motorized mile compared to only 369 snowmobile visits per groomed motorized mile. These figures would be farther apart if data from the forests with no groomed non-motorized trails were included.

Three Utah national forests, Ashley, Fish Lake and Uinta, have no non-motorized groomed trails at all despite an estimated 42,000 skier and snowshoer visits on those forests. Uinta National Forest shows the greatest disparity with an estimated 36,000 skier and snowshoer visits without any non-motorized groomed trails on forest land even though there are a total of 150 miles of groomed motorized trails in that forest.

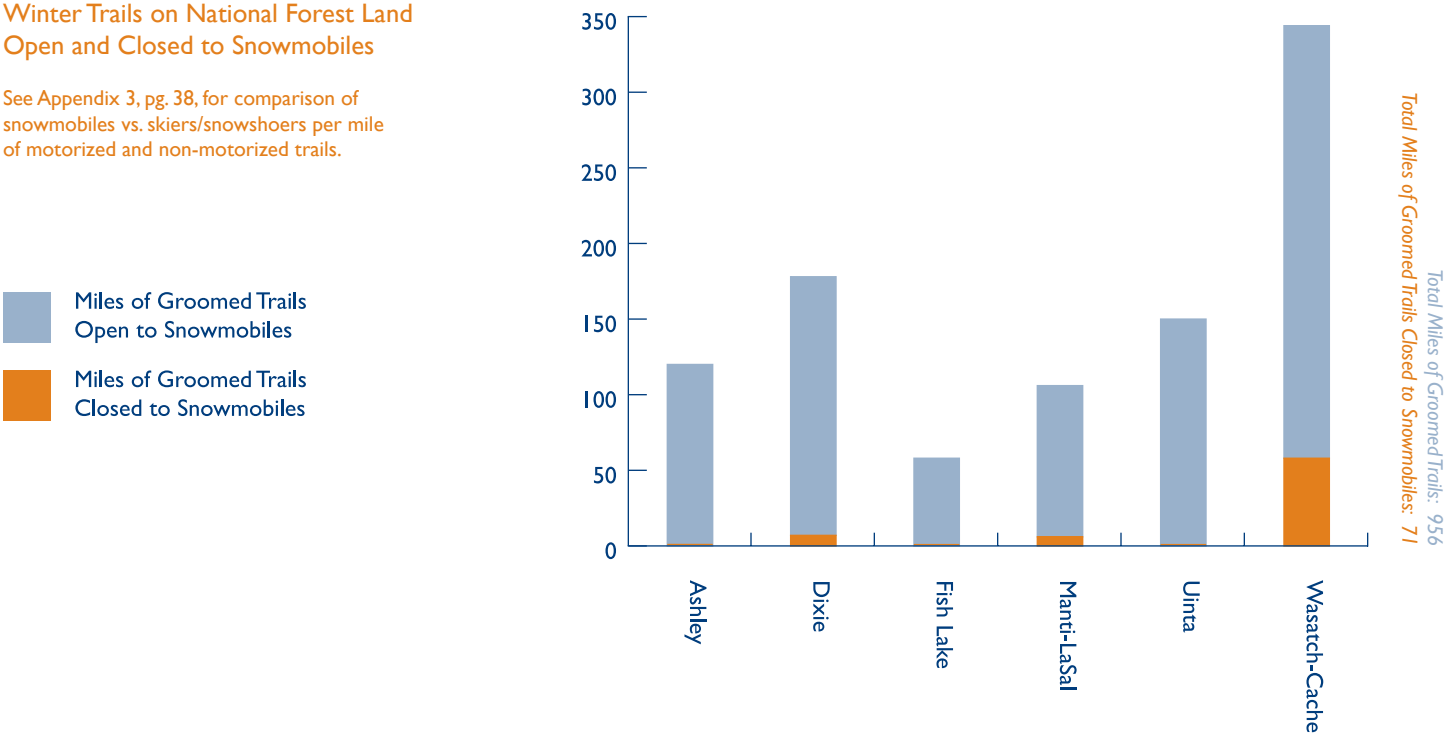
Even on the Wasatch-Cache National Forest where there are 50 percent more cross-country skier and snowshoer visits than snowmobile visits, only a fifth of the groomed trails are designated non-motorized. The result is 10 times more skier and snowshoer visits per groomed non-motorized mile than snowmobile visits per groomed motorized mile.

Almost seven million acres of forest land in Utah are open to snowmobiles, five times more acres than are closed. For practical purposes, since only slightly more than half of the closed acres are non-wilderness acres, there is nine times more acreage available for snowmobilers than for skiers and snowshoers seeking a non-motorized experience.

Since the results of the NVUM activity analysis do not identify the types of activities visitors would like to have offered on

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



the national forests or account for displaced forest visitors, the situation is likely more severe than it appears. This is especially true of the three national forests that have no groomed non-motorized trails whatsoever. This bias toward motorized trails is noted in the Utah SCORP, which mentions that motorized and multiple-use trails are emphasized in three of the seven planning districts in the state, despite only one of those districts reporting higher motorized participation than non-motorized participation.[94] In fact, snowmobile registrations in Utah declined by 20 percent between 1998 and 2004.[95]

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

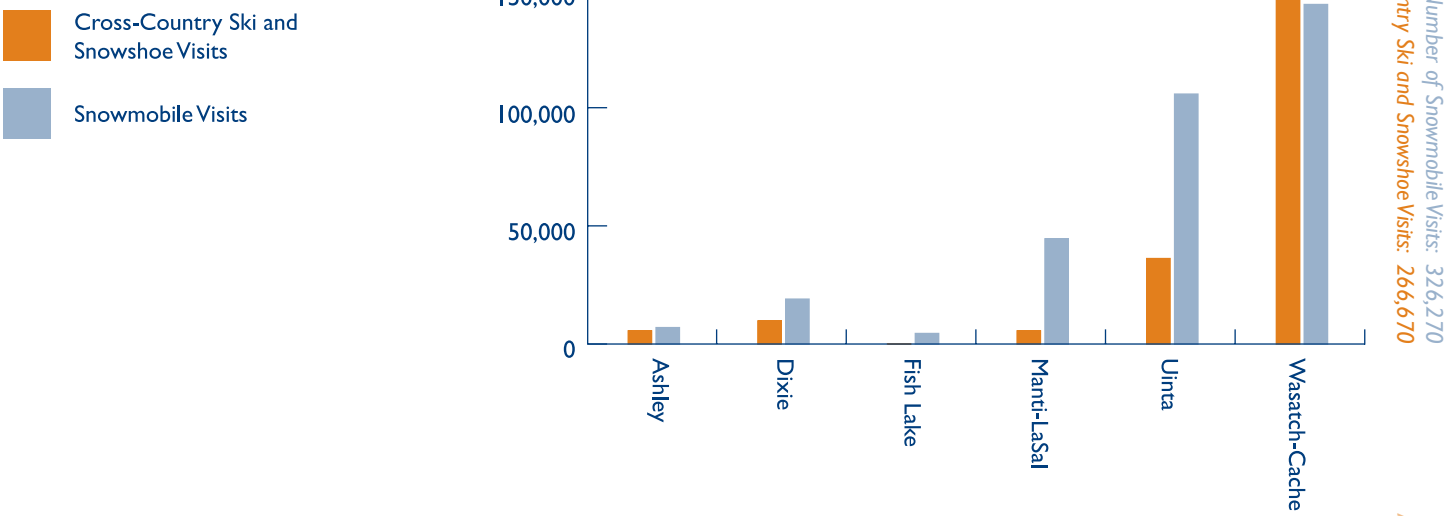
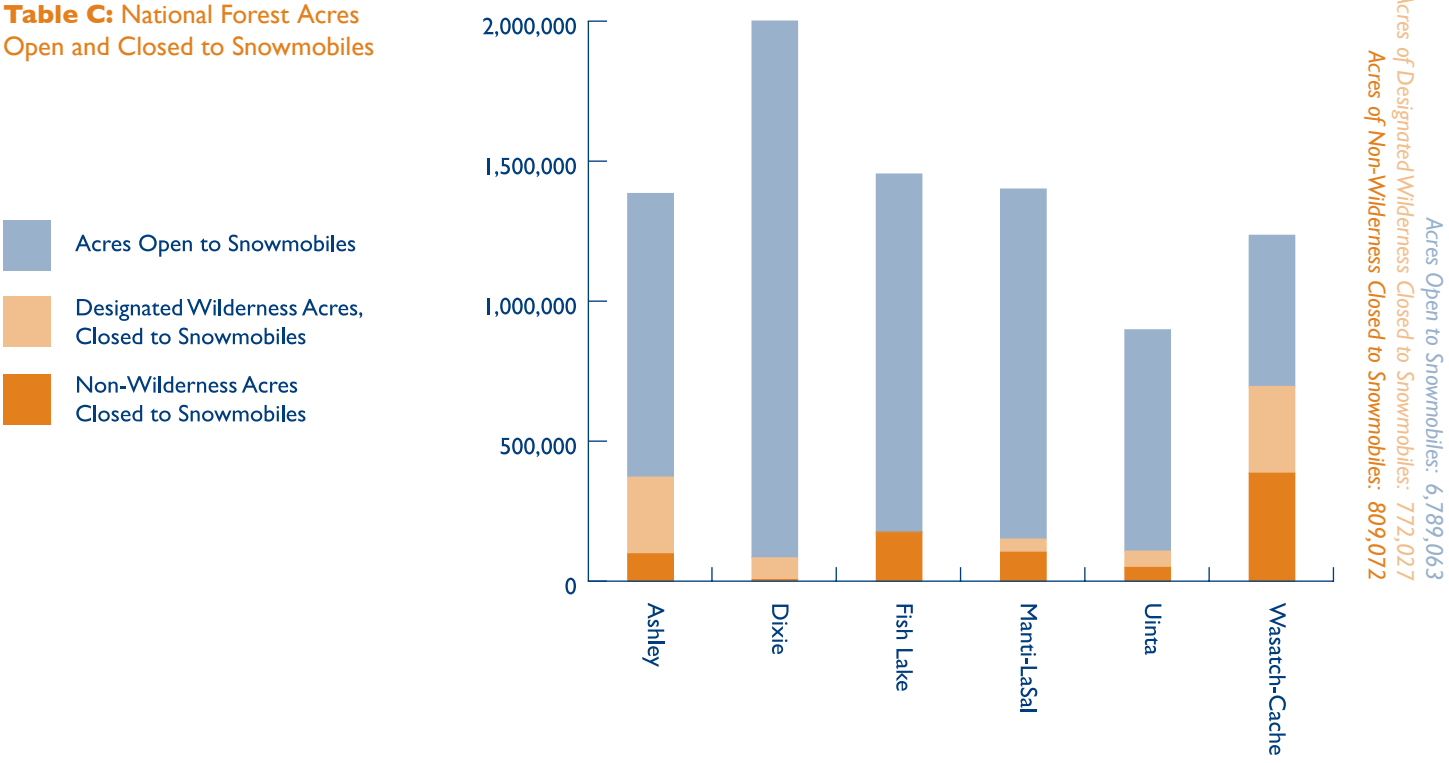


Table C: National Forest Acres Open and Closed to Snowmobiles



The Washington national forests contain:
- 2,575 miles of groomed winter trails
- 2,309 miles of groomed trails open to snowmobiles
- 266 miles of groomed trails closed to snowmobiles

See Table A.

The Washington national forests contain:
- 7,812,000 acres of land
- 4,507,658 acres of land open to snowmobiles
- 1,103,818 acres of non-wilderness land closed to snowmobiles
- 2,261,444 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Washington forests show there are an estimated:
- 520,550 cross-country ski and snowshoe visits annually
- 362,900 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Washington, there are 10 times more miles of groomed motorized trails than non-motorized even though NVUM participation figures show that statewide the number of skier and snowshoer visits exceed snowmobile visits by 50 percent. This disparity results in a density of 1,957 skier and snowshoer visits per non-motorized mile compared to 157 snowmobile visits per motorized mile.

Neither the Gifford Pinchot National Forest nor the Mt. Baker-Snoqualmie National Forest offer any groomed non-motorized trails, despite the fact that there are more skiers than snowmobilers in both forests. In the Gifford Pinchot National Forest, skiers and snowshoers outnumber snowmobilers two to one, yet all of the 195 miles of groomed trails are motorized. In the Mt. Baker-Snoqualmie National Forest, use is estimated to be equal, yet not one of the 134 miles of groomed trails is designated non-motorized. Given the fact that the NVUM numbers do not account for displaced visitors, the numbers of cross-country skiers and snowshoers in these forests may be even higher.

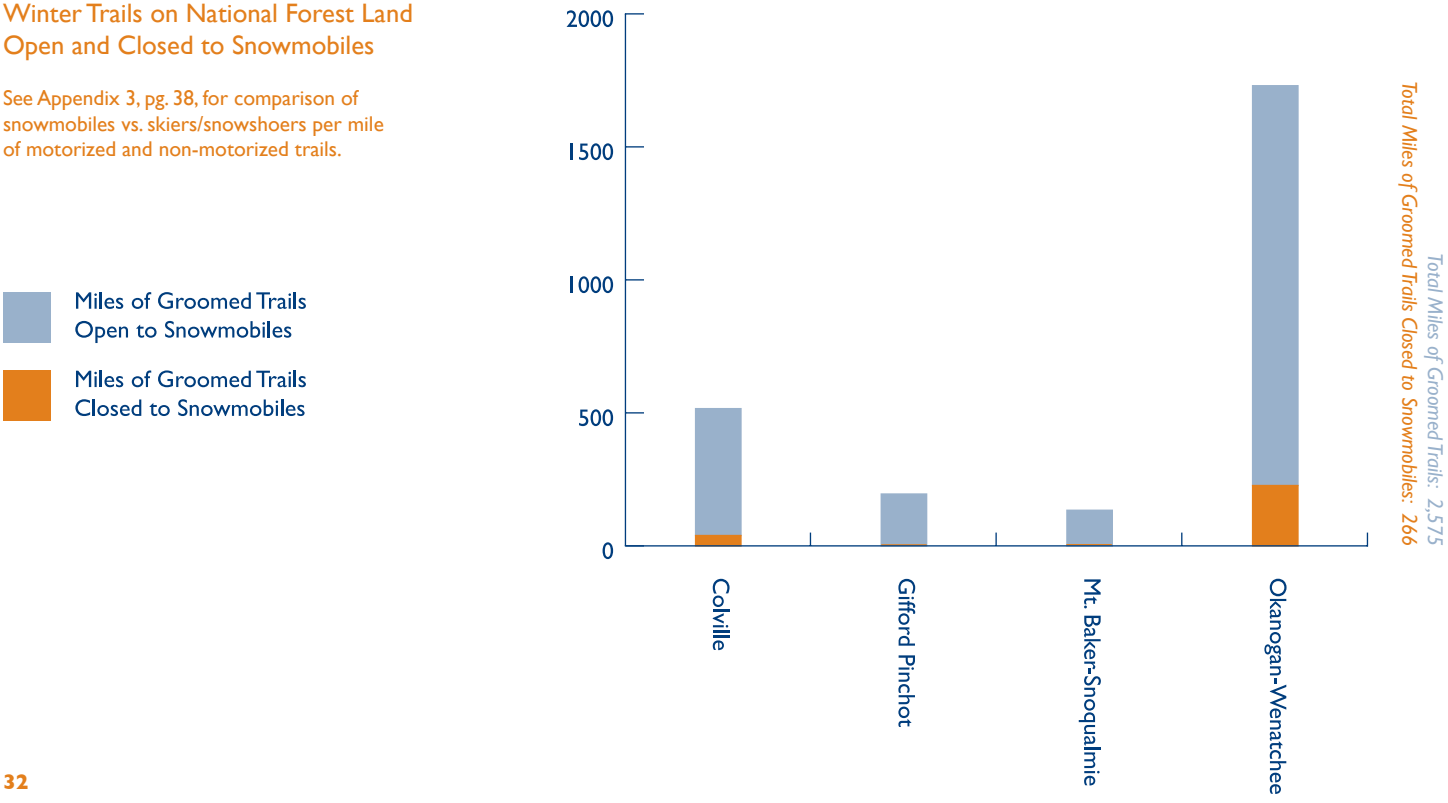
Even in Okanogan-Wenatchee National Forest, where 227 miles of trail are designated non-motorized, density is 1,095 skier and snowshoer visits per non-motorized mile versus 77 snowmobile visits per motorized mile. There are twice as many non-motorized users visiting this forest, yet there are six times more motorized miles than non-motorized miles of groomed trails.

Washington has 1.1 million acres of non-wilderness non-motorized lands compared to 4.5 million acres that are open to snowmobiles. This results in a ratio of six non-motorized users to one motorized user per acre despite 50 percent more skier and snowshoer visits than snowmobile visits.

The Washington SCORP estimates, which are consistent with the NVUM survey participation numbers, estimate there are 112,942 cross-country skiers, 38,000 snowshoers, and 98,072 snowmobilers participating in the state.[96] Given the disparity between user numbers and the small percentage of trails closed to motorized use, it is not surprising that the state plan concludes that "growing demand is resulting in more reported crowding, increased specialization, increased user conflicts, and increased management actions to limit adverse impacts of access and activities."[97]

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.



Olympic National Forest was not included in this report since it has no groomed miles and little data relating to winter motorized and non-motorized participation. Forests that are jointly administered supplied total acreages and miles for the combined forests, yet the NVUM data is for each forest separately. Thus, to arrive at ratios of user numbers to miles and acres, the total visits for each forest were added together to determine a combined forest-wide percentage of users for each activity.

Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

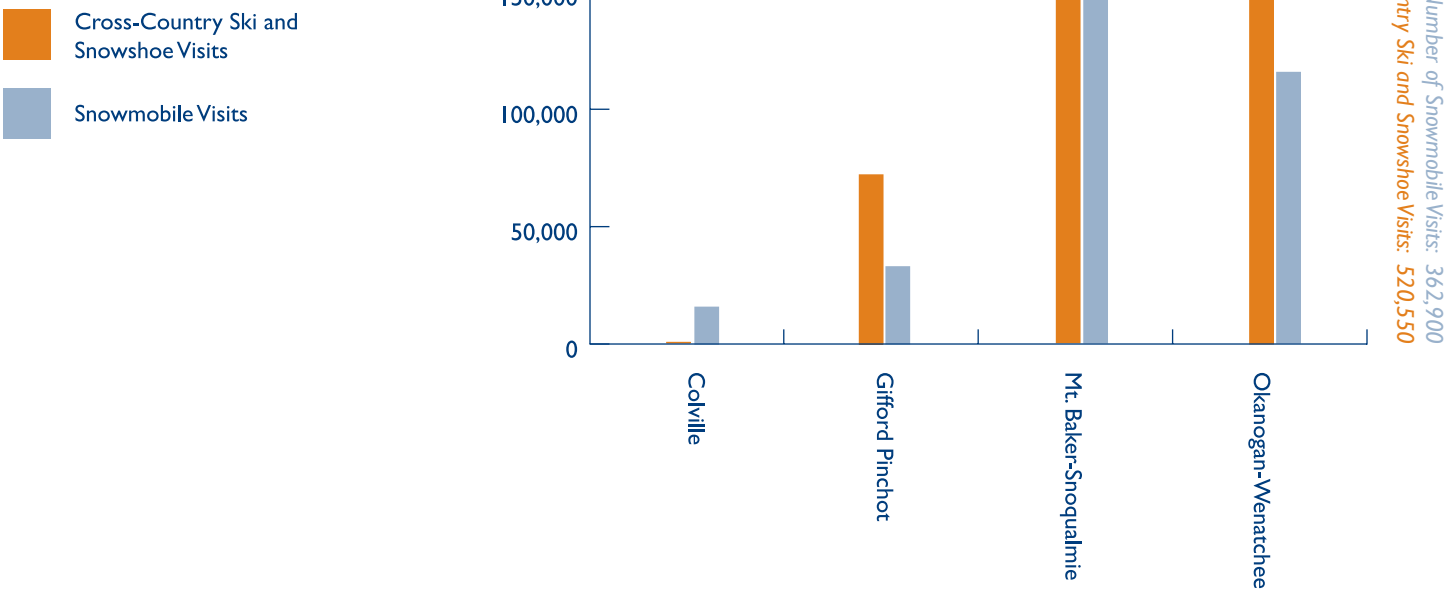
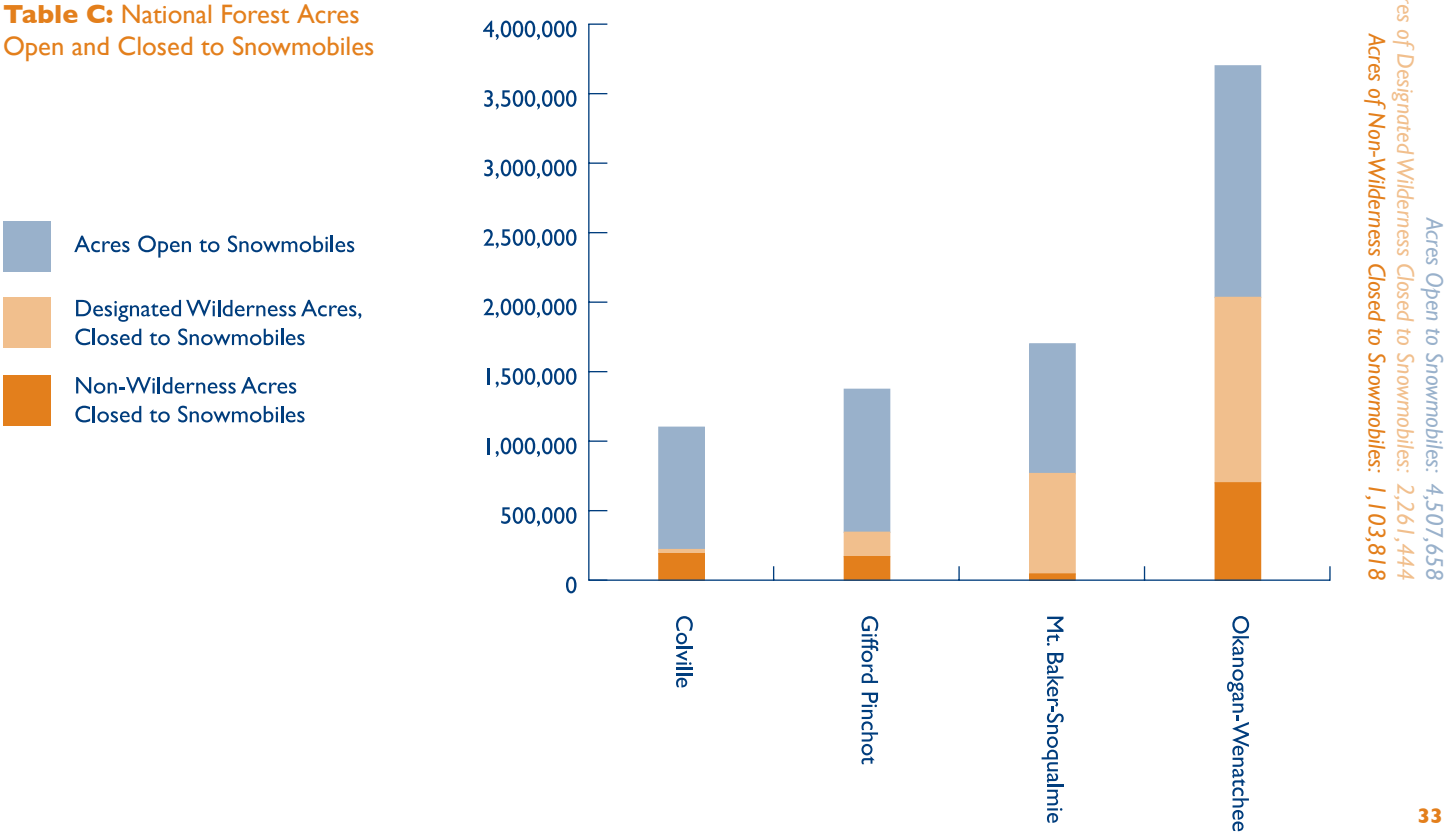


Table C: National Forest Acres Open and Closed to Snowmobiles



The Wyoming national forests contain:
- 1,592 miles of groomed winter trails
- 1,449 miles of groomed trails open to snowmobiles
- 143 miles of groomed trails closed to snowmobiles

See Table A.

The Wyoming national forests contain:
- 8,015,073 acres of land
- 4,905,161 acres of land open to snowmobiles
- 225,229 acres of non-wilderness land closed to snowmobiles
- 2,867,039 acres of designated wilderness land, also closed to snowmobiles

See Table C.

The NVUM surveys for the Wyoming forests show there are an estimated:
- 281,815 cross-country ski and snowshoe visits annually
- 486,675 snowmobile visits annually

See Table B.

These numbers show that on national forest land in Wyoming, there are 10 times more miles of groomed motorized trails than non-motorized while NVUM surveys for the forests in Wyoming indicate there are approximately 282,000 annual cross-country skier and snowshoer visits and 487,000 annual snowmobile visits. This disparity results in a density of 1,971 cross-country skier and snowshoer visits per non-motorized mile versus 336 snowmobile visits per motorized mile.

The disparity in opportunities for snowmobiles versus cross-country skiers and snowshoers is greatest in the Bridger-Teton National Forest. Though this forest has the highest percentage of cross-country skiers and snowshoers of any part of the state, its ratio of users per mile is the most disparate. Only 44 miles of groomed non-motorized trails exist for an estimated 213,000 skier and snowshoer visits. On the other hand, snowmobilers enjoy 565 miles of groomed trails on that forest. These figures translate to a density of 4,848 skier and snowshoer visits per non-motorized mile versus 602 snowmobile visits per motorized mile.

The Medicine Bow National Forest is similarly weighted toward motorized use. Of 282 groomed miles of trails, only 38 miles are designated non-motorized. Despite the fact that snowmobile visits on this forest outnumber skier and snowshoer visits by only one-third, there are seven times more motorized trails than non-motorized.

For backcountry users desiring a non-motorized experience, neither the Bridger-Teton nor Shoshone National Forests offer any non-wilderness acres closed to motorized uses in winter.

Since the results of the NVUM activity analysis do not identify the types of activities visitors would like to have offered on the national forests or account for displaced forest visitors, the situation is likely more severe for skiers and snowshoers than the numbers reflect.

This situation is aggravated by state planners in Wyoming who have placed the development of non-motorized trails in a secondary role due to their assumption that "other federal, state and local agencies are the primary non-motorized trail managers in Wyoming."[98]

Table A: Total Miles of Groomed Winter Trails on National Forest Land Open and Closed to Snowmobiles

See Appendix 3, pg. 38, for comparison of snowmobiles vs. skiers/snowshoers per mile of motorized and non-motorized trails.

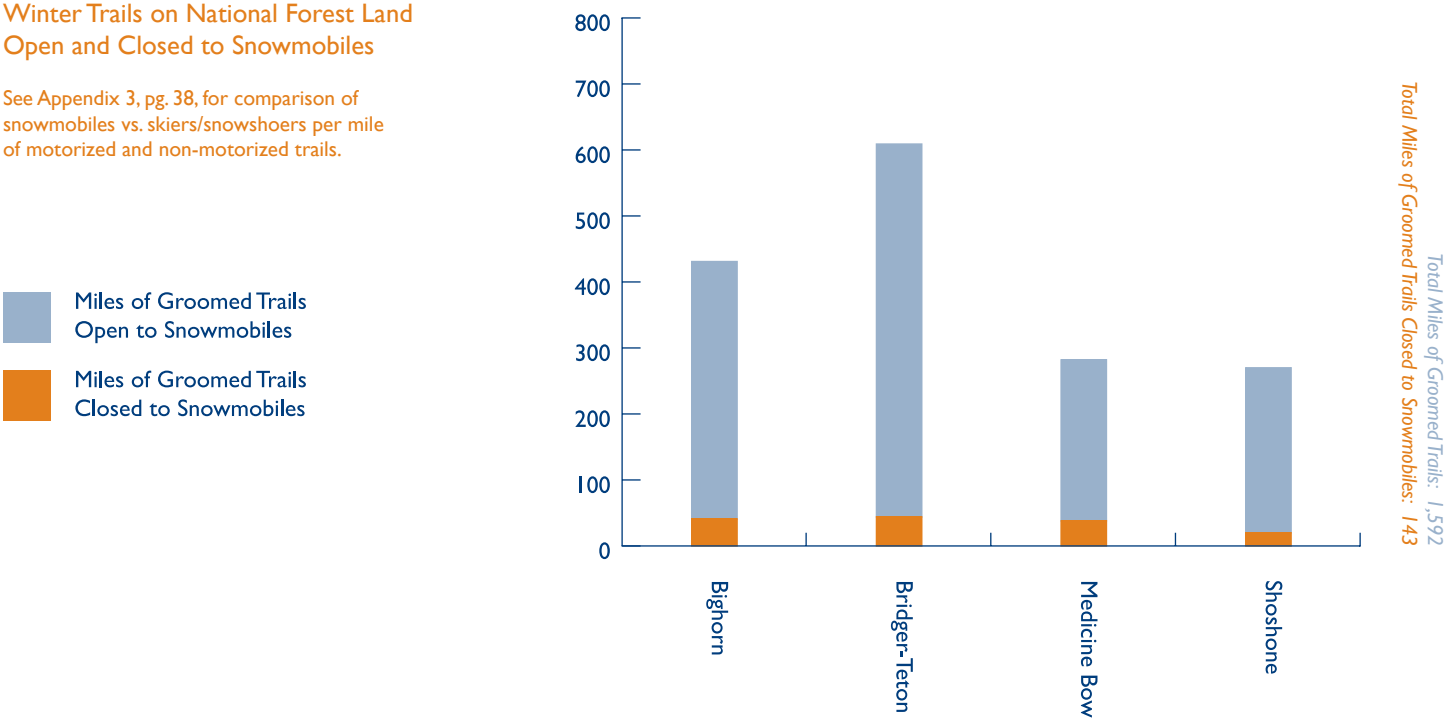


Table B: National Forest Annual Visits per Activity

Source: U.S. Government, National Visitor Use Monitoring data

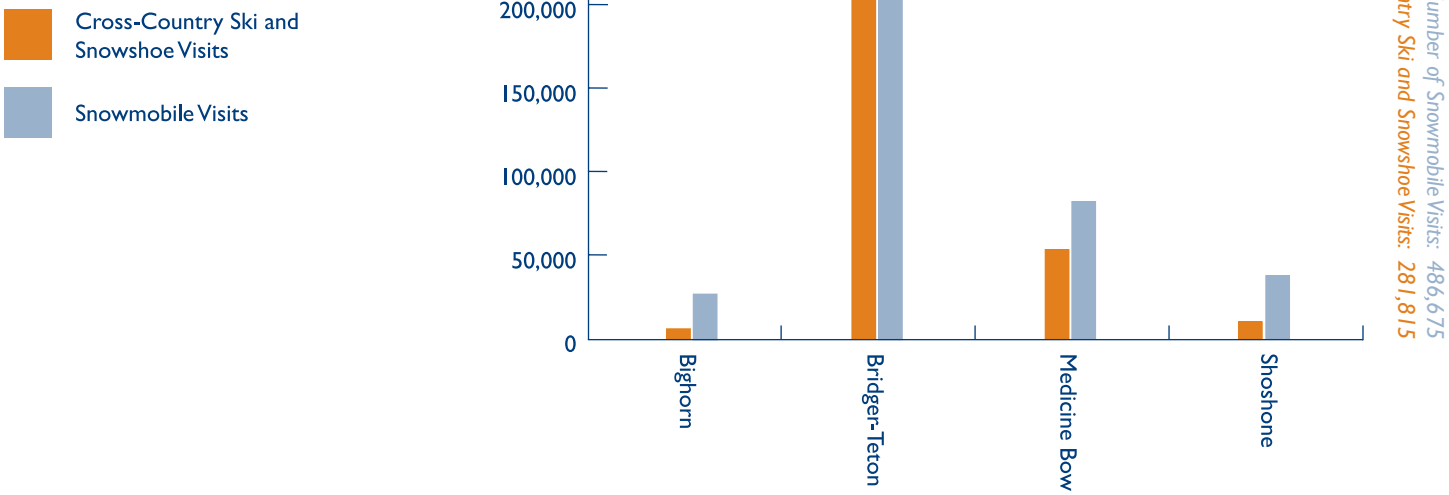
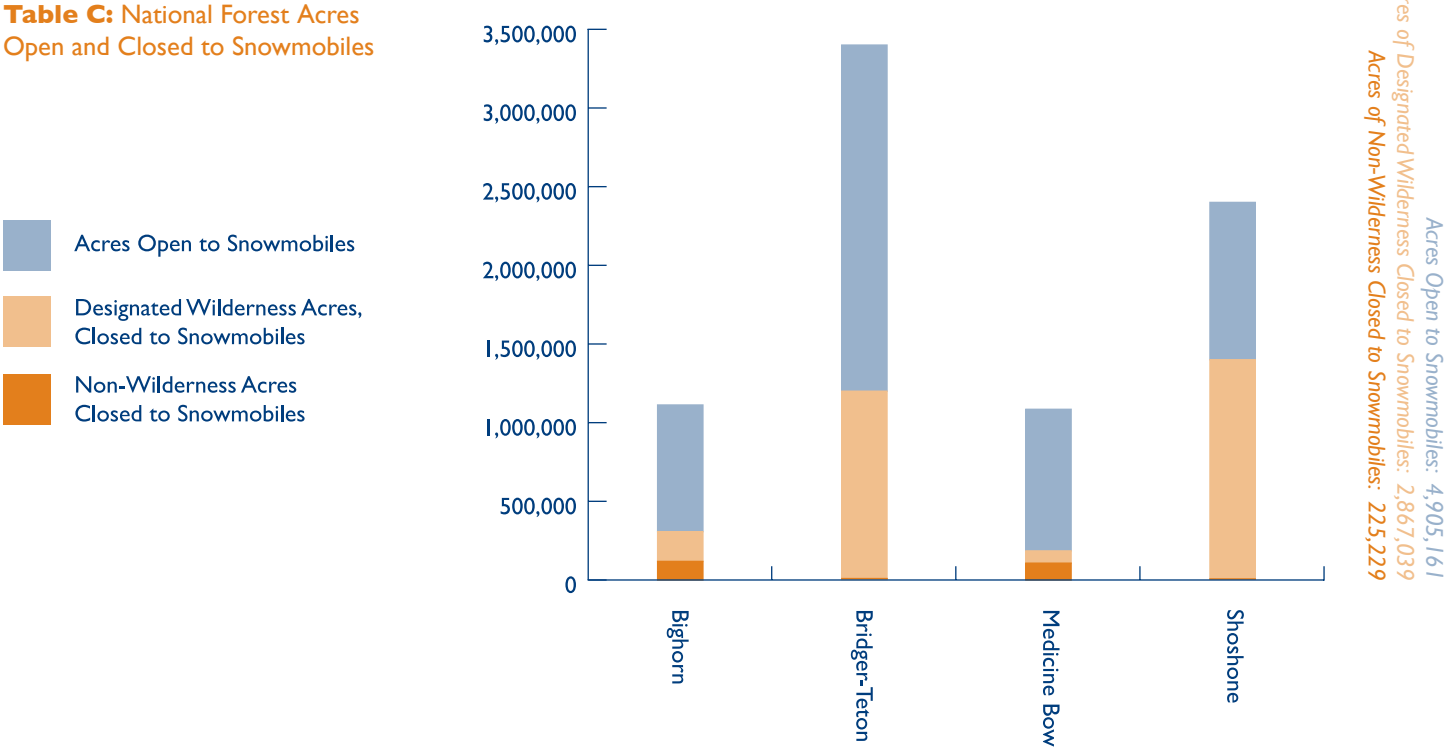


Table C: National Forest Acres Open and Closed to Snowmobiles



Appendix 1 - First FOIA Request:

Winter Wildlands Alliance
910 Main Street, Suite 235
Boise, ID 83702
208.336.4203
www.winterwildlands.org

(Submitted via certified mail)
August 25, 2003

Regional FOIA Coordinator
Pacific Northwest (R6)
*
Freedom of Information Act Request
Re: Winter Recreation Planning and Management

Dear *:

Pursuant to the Freedom of Information Act, 5 U.S.C. Part 552, and implementing regulations, 36 C.F.R. Part 200, Winter Wildlands Alliance, a 501(c)(3) national non-profit organization, is filing this request for information. We request the following items:

1) Any and all records that summarize the length of measure of all cross-country ski and snowshoe trails on your forest
2) Any and all records that summarize the length of measure of all snowmobile trails, including roads, on your forest
3) Any and all records that summarize the length of measure of all trails that are designated shared use for motorized and non-motorized winter recreational activities on your forest
4) Any and all records that detail the total acreage in your forest that is open to or available for snowmobile operation
5) Any and all records that detail the total acreage in your forest that is closed to snowmobile operation
6) Any and all records that describe the amount of Recreational Trails Program (RTP) grant money used for cross-country ski and snowshoe trail-related activities on your forest in the years 2002-2003
7) Any and all records that describe the amount of Recreational Trails Program (RTP) grant money used for snowmobile trail-related activities on your forest in the years 2002-2003

If you determine that any of the requested materials are exempt from disclosure, please separate the exempt portions from the non-exempt portions and provide us with copies of the non-exempt portions. For any exempt portions, please include a specific description of the record and the reasons, defined in the terms of the Freedom of Information Act, for which the record is deemed exempt from disclosure. Winter Wildlands Alliance (WWA) reserves the right to appeal a decision to withhold any records.

To our knowledge, the above-requested information is not available from any other federal, state, or other public agency required to provide the information. Furthermore, the release of the information will not provide WWA, its affiliates, and any other individual, group, or organization with any financial benefits.

Winter Wildlands Alliance is a national, non-profit, human-powered winter recreation and wildlands advocacy organization. Spanning the nation, WWA is affiliated with local, state, and national recreation and conservation organizations, including 12 grassroots groups in seven states. WWA and its partners, who represent cross-country skiers and snowshoers, focus primarily on public land management and winter recreation opportunities.

Currently, WWA is working with grassroots groups in seven states, including California, Colorado, Idaho, Nevada, Oregon, Utah, and Wyoming. The information contained within this FOIA request will benefit these groups, their members, and other public partners by educating them about USFS management practices, specifically how the needs of recreational user groups are addressed through current trail designation and funding. In addition to these groups, WWA will make all requested information available to the general public, its members, and other recreation and conservation groups, who will all benefit as they pursue winter recreation opportunities on our national forests.

Winter Wildlands Alliance makes information concerning USFS management practices available to all interested parties through public meetings, electronic and printed action alerts, newsletters, press releases, magazine articles, phone calls, and other means. The requested information will also assist WWA in responding to opportunities for public comment on proposed actions concerning winter recreation planning on national forest lands, in addition to allowing WWA to assist others in the preparation of such comments. The requested information will better educate the public, allowing them to be more active participants in Forest Service forums on winter recreation planning and management. Many opportunities are presently available for such involvement, as many Forest Plans are or soon will be in the process of revision.

For reasons of public interest and education, WWA requests that you grant a waiver of fees pursuant to 5 U.S.C. Part 522 (a)(4)(A) and 43 C.F.R. Part and Section 2.21. We expect that such a waiver will be granted. However, if a waiver is not granted, please inform WWA immediately of the price of disclosing the above-described records if such fees exceed $15.00.

We respectfully request that you will respond to our FOIA request within 20 working days. Please feel free to call me at (208) 344-2968 or email me at smiller@winterwildlands.org if you have any questions. Thank you for your immediate attention to this matter.

Sincerely,

*
Program Coordinator

Appendix 2 - Refined Request:

Winter Wildlands Alliance
910 Main Street, Suite 235
Boise, ID 83702
208.336.4203
www.winterwildlands.org

August 22, 2004

National Forest FOIA Coordinator

Freedom of Information Act Request
Re: Winter Recreation Planning and Management

Dear *:

Winter Wildlands Alliance submitted a FOIA request last fall to your forest that was not responded to. I am resubmitting the request and would very much appreciate a response.

I have framed the request so it is obvious what I am really interested in, i.e. the data estimates for groomed routes for snowmobiling and skiing and acres open and closed to snowmobiles on your forest, as requested below. If you can provide me with the estimates, I do not need the supporting records. I only need the records if the data is not readily available so that I can make the determinations myself.

I would appreciate it if you could email me the information at *.

Pursuant to the Freedom of Information Act, 5 U.S.C. Part 552, and implementing regulations, 36 C.F.R. Part 200, Winter Wildlands Alliance, a 501(c)(3) national non-profit organization, is filing this request for information. We request the following items:

8) Any and all records that show or state the number of miles of, all groomed cross-country ski and snowshoe trails on the * National forest (including miles under special use permit or groomed by other entities) that are closed to snowmobiles.
9) Any and all records that show or state the number of miles of, all groomed routes that are open to snowmobiles on the * National forest (including miles under special use permit or groomed by other entities).
10) Any and all records that show or state the total forest acreage
11) Any and all records that show or state the number of acres, in your forest that are closed to snowmobile operation
12) Any and all records that describe the amount of Recreational Trails Program (RTP) grant money used for cross-country ski and snowshoe trail-related activities on your forest in the years 2002-2003
13) Any and all records that describe the amount of Recreational Trails Program (RTP) grant money used for snowmobile trail-related activities on your forest in the years 2002-2003.

In lieu of searching and providing those documents, I would accept the following numbers:

In the * National forest:

1. **An estimate of the number of miles of groomed cross-country ski routes that are closed to snowmobiles (including miles under special use permit or groomed by other entities); and**
2. **An estimate of the number of miles of groomed snowmobile (or multi-use) routes (including miles under special use permit or groomed by other entities).**
3. **An estimate of the total forest acreage for the * National Forest**
4. **An estimate of the total number of acres in the * National Forest that are closed to snowmobiles.**
5. **Amount of Recreational Trails Program (RTP) grant money used for cross-country ski and snowshoe trail-related activities on your forest in the years 2002-2003**
6. **Amount of Recreational Trails Program (RTP) grant money used for snowmobile trail-related activities on your forest in the years 2002-2003.**

If you determine that any of the requested materials are exempt from disclosure, please separate the exempt portions from the non-exempt portions and provide us with copies of the non-exempt portions. For any exempt portions, please include a specific description of the record and the reasons, defined in the terms of the Freedom of Information Act, for which the record is deemed exempt from disclosure. Winter Wildlands Alliance (WWA) reserves the right to appeal a decision to withhold any records.

To our knowledge, the above-requested information is not available from any other federal, state, or other public agency required to provide the information. Furthermore, the release of the information will not provide WWA, its affiliates, and any other individual, group, or organization with any financial benefits.

Winter Wildlands Alliance is a national, non-profit, human-powered winter recreation and wildlands advocacy organization. Spanning the nation, WWA is affiliated with local, state, and national recreation and conservation organizations, including 12 grassroots groups in seven states. WWA and its partners, who represent cross-country skiers and snowshoers, focus primarily on public land management and winter recreation opportunities.

Currently, WWA is working with grassroots groups in seven states, including California, Colorado, Idaho, Nevada, Oregon, Utah, and Wyoming. The information contained within this FOIA request will benefit these groups, their members, and other public partners by educating them about USFS management practices, specifically how the needs of recreational user groups are addressed through current trail designation and funding. In addition to these groups, WWA will make all requested information available to the general public, its members, and other recreation and conservation groups, who will all benefit as they pursue winter recreation opportunities on our national forests.

Winter Wildlands Alliance makes information concerning USFS management practices available to all interested parties through public meetings, electronic and printed action alerts, newsletters, press releases, magazine articles, phone calls, and other means. The requested information will also assist WWA in responding to opportunities for public comment on proposed actions concerning winter recreation planning on national forest lands, in addition to allowing WWA to assist others in the preparation of such comments. The requested information will better educate the public, allowing them to be more active participants in Forest Service forums on winter recreation planning and management. Many opportunities are presently available for such involvement, as many Forest Plans are or soon will be in the process of revision.

For reasons of public interest and education, WWA requests that you grant a waiver of fees pursuant to 5 U.S.C. Part 522 (a)(4)(A) and 43 C.F.R. Part and Section 2.21. We expect that such a waiver will be granted. However, if a waiver is not granted, please inform WWA immediately of the price of disclosing the above-described records if such fees exceed $15.00.

We respectfully request that you will respond to our FOIA request within 20 working days. Please feel free to call me at (208) 344-2968 or email me at * if you have any questions. Thank you for your immediate attention to this matter.

Sincerely,

*
Program Coordinator

Appendix 3 - Table of all Forests

State	Forest	Total acres	Acres Open to Snowmobiles	Acres of Non-Wilderness, Closed to Snowmobiles	Acres of Designated Wilderness, Closed to Snowmobiles
California	Eldorado	596,724	438,724	34,371	123,629
	Inyo	2,000,000	1,130,000	231,559	638,441
	Klamath	1,700,000	1,260,836	29,000	410,164
	Lake Tahoe Basin	160,000	80,000	80,000	0
	Lassen	1,200,000	913,000	70,119	77,881
	Modoc	1,654,392	1,000,000	584,007	70,385
	Plumas	1,200,000	1,179,000	0	21,000
	Sequoia	1,110,000	793,000	9,523	307,477
	Shasta-Trinity	2,100,000	733,863	881,151	484,986
	Sierra	1,286,000	754,000	0	532,000
	Stanislaus	898,099	539,885	145,677	212,537
	Tahoe	811,740	724,440	68,252	19,048
	Total	14,716,955	9,546,748	2,133,659	2,897,548
Colorado	Arapaho-Roosevelt	1,500,000	1,000,000	169,450	330,550
	Grand Mesa-Uncompahgre-Gunnison	3,100,000	2,000,000	445,778	554,222
	Pike-San Isabel	2,200,000	1,690,000	0	510,000
	Rio Grande	1,860,000	1,417,563	48,064	391,874
	Routt	1,300,000	1,050,000	0	265,000
	San Juan	1,873,411	1,256,848	201,215	415,348
	White River	2,286,430	941,008	606,432	739,000
	Total	14,119,841	9,355,419	1,470,939	3,205,994
Idaho	Boise	2,600,000	1,850,000	267,038	482,962
	Caribou-Targhee	3,000,000	2,455,000	410,834	134,166
	Clearwater	1,800,000	1,558,500	3,835	259,165
	Idaho Panhandle	2,500,000	2,076,300	379,380	44,320
	Nez Perce	2,200,000	1,100,000	223,900	876,100
	Payette	2,300,000	1,000,000	484,414	815,586
	Salmon-Challis	4,300,000	2,371,450	628,550	1,300,000
	Sawtooth	2,100,000	1,750,000	295,003	54,997
	Total	20,800,000	14,161,250	2,692,954	3,967,296
Montana	Beaverhead-Deer Lodge	3,300,000	2,759,000	315,863	225,137
	Bitterroot	1,600,000	742,655	88,366	746,862
	Custer	1,300,000	933,856	20,545	345,599
	Flathead	2,300,000	1,188,000	72,067	1,069,933
	Gallatin	1,850,000	959,362	181,284	715,338
	Helena	1,000,000	452,567	414,378	109,259
	Kootenai	2,200,000	1,917,000	233,048	49,952
	Lewis and Clark	1,900,000	1,400,000	115,593	384,407
	Lolo	2,100,000	1,569,380	167,312	363,308
	Total	17,550,000	11,921,820	1,608,456	4,009,795
Nebraska	Nebraska / Total	1,100,000	1,075,600	16,606	7,794
Nevada	Humboldt-Toiyabe / Total	6,332,500	5,317,500	10,225	1,004,775
Oregon	Deschutes-Ochoco	2,500,000	2,250,000	31,060	218,940
	Fremont-Winema	2,300,000	2,100,000	15,516	184,484
	Malheur	1,700,000	1,450,000	168,030	81,970
	Mt. Hood	1,067,000	792,000	85,800	189,200
	Rogue River-Siskiyou	1,723,000	900,000	466,857	356,143
	Umatilla	1,600,000	1,104,335	247,306	304,667
	Umpqua*	984,602	900,000	0	78,693
	Wallowa-Whitman	2,392,508	1,500,000	265,000	585,000
	Willamette	1,675,407	1,200,000	44,195	380,805
	Total	15,942,517	12,196,335	1,323,764	2,379,902
South Dakota	Black Hills / Total	1,200,000	1,047,000	39,574	13,426
Utah	Ashley	1,384,132	1,012,993	97,292	273,847
	Dixie	2,000,000	1,917,000	162	82,838
	Fish Lake	1,454,290	1,278,640	175,000	0
	Manti-LaSal	1,413,111	1,250,000	102,884	47,116
	Uinta	900,000	790,430	48,603	58,357
	Wasatch-Cache	1,200,000	540,000	385,131	309,869
	Total	8,351,533	6,789,063	809,072	772,027
Washington	Colville	1,100,000	880,000	190,614	29,386
	Gifford Pinchot	1,312,000	1,028,540	168,934	175,446
	Mt. Baker-Snoqualmie	1,700,000	933,118	44,121	722,761
	Okanogan-Wenatchee	3,700,000	1,666,000	700,149	1,333,851
	Total	7,812,000	4,507,658	1,103,818	2,261,444
Wyoming	Bighorn	1,115,073	805,161	118,229	189,039
	Bridger-Teton	3,400,000	2,200,000	0	1,200,000
	Medicine Bow	1,100,000	900,000	107,000	78,000
	Shoshone	2,400,000	1,000,000	0	1,400,000
	Total	8,015,073	4,905,161	225,229	2,867,039
Total		**115,940,419**	**80,823,554**	**11,434,296**	**23,387,040**

Annual Snowmobile Visits	Annual X-C Ski and Snowshoe Visits	Miles of Groomed Winter Trails Open to Snowmobiles	Miles of Groomed Winter Trails Closed to Snowmobiles	Snowmobile Visits per Groomed Motorized Mile	X-C Ski and Snowshoe Visits per Groomed Non-Motorized Mile
14,901	62,580	91	35	164	1,788
114,000	817,000	130	12	877	68,083
8,400	40,000	132	12	64	3,333
83,700	93,000	50	1	1,674	93,000
7,000	<70	477	18	15	<4
100	<10	52	0	2	
27,000	9,000	183	0	148	
10,080	840	360	35	28	24
6,600	99,000	260	18	25	5,500
12,000	75,000	209	0	57	
30,600	45,180	70	30	437	1,506
11,070	125,460	244	2	45	62,730
325,451	1,367,060	2258	163	144	8,387
186,000	868,000	255	0	729	
501,160	238,000	350	56	1,432	4,250
				<3	3,510
<390	35,100	140	10		
221,000	143,000	250	22	884	6,500
69,700	47,600	287	37	243	1,286
38,000	76,000	386	29	98	2,621
329,800	611,100	465	97	709	6,300
1,345,660	2,018,800	2,133	251	631	8,043
110,000	88,000	777	34	141	2,588
616,000	66,000	982	90	627	733
62,100	32,400	188	21	330	1,543
9,350	39,950	1231	74	8	540
25,000	15,000	350	7	71	2,143
38,400	21,600	237	0	162	
150	350	125	3	1	117
16,000	16,000	247	98	65	163
877,000	279,300	4137	327	212	854
33,000	44,000	430	44	77	1,000
790	11,060	58	0	14	
<74	11,100	15	10	<5	1,110
14,000	196,000	156	65	90	3,015
178,794	79,596	340	25	526	3,184
18,444	1,961	276	10	67	196
48,400	1,100	162	30	299	37
10,080	8,640	150	15	67	576
90,000	17,500	474	18	190	972
393,508	370,957	2061	217	191	1,709
<1	208	0	0	0	0
65,000	78,000	46	2	1,413	39,000
36,800	95,200	560	75	66	1,269
6,900	4,500	296	0	23	
<40	40	500	0	<.08	
24,800	148,000	250	37	99	4,000
3,000	80,800	250	0	12	
31,135	15,600	496	20	63	780
30,800	7,700	146	13	211	592
30,837	16,929	500	40	62	423
13,500	90,000	45	29	300	3,103
177,812	458,769	3043	214	58	2,144
30,940	<130	387	27	80	<5
7,000	5,600	120	0	58	
19,120	9,840	171	7	112	1406
4,500	<45	58	0	77	
44,800	5,600	100	6	448	933
106,400	36,400	150	0	709	
144,550	209,230	286	58	505	3,607
326,370	266,670	885	71	369	3,756
15,000	50	477	39	31	1.3
32,400	72,000	195	0	166	
200,000	200,000	134	0	1,493	
115,500	248,500	1503	227	77	1,095
362,900	520,550	2309	266	157	1,957
25,900	5,600	390	41	66	137
340,200	213,300	565	44	602	4,848
81,900	53,100	244	38	336	1,397
38,675	9,815	250	20	155	491
486,675	281,815	1449	143	336	1971
4,391,317	**5,642,259**	**18,708**	**1,681**	**235**	**3,356**

Endnotes

[1] From: "A Brief History of Snowshoeing," at www.atlassnowshoe.com.
[2] From: Lund, "A Short History of Alpine Skiing," at www.skinghistory.org/history
[3] From: Dawson, "Chronology of North American Ski Mountaineering and Backcountry Skiing," WildSnow.com, at www.wildsnow.com/chronology/timeline_table.html
[4] From: Lund and Masia, "A Short History of Skis," Journal of ISHA, The International Skiing History Association, Aug. 2005, at skiinghistory.org/skishistory.html; See also: home.hia.no/~stephens/skihis.htm
[5] From: Ingham, "As the Snow Flies, A History of Snowmobile Development in North America," at www.snowmobilehistory.com/index.html
[6] From: International Snowmobile Manufacturers Association (ISMA), at www.snowmobile.org/facts_hist.asp
[7] Id.; For photos of early machines see www.snowmobilehistory.com/page6.html.
[8] See photo posted by the Snowmobile Canada website at www.snowmobile-canada.com/his3.htm
[9] From: www.snojet.com
[10] From: The ISMA website at www.snowmobile.org/facts_hist.asp
[11] From The Ski-Doo website at www.ski-doo.com/en-US/Snowmobiles/2006/Mach.Z/The.Basics/
[12] Id.
[13] From: Cordell, et al., "Outdoor Recreation Participation Trends", In: Cordell, et al., Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends, Champaign, IL., Sagamore Publishing, p. 302, 1999, at www.srs.fs.usda.gov/pubs/ja/ja_cordell010.pdf
[14] Id.
[15] From: 1962 National Outdoor Recreation Survey at www.srs.fs.usda.gov/trends/Nsre/ORRRC/Ch3.pdf
[16] From: Recreation Statistics Update, Update Report No. 2, Sept., 2004, at www.srs.fs.usda.gov/recreation/RECUPDATES/recupdate0907.pdf; See also ISMA, at www.snowmobile.org/pr_snowfacts.asp
[17] See fn. 13.
[18] See fn. 13.
[19] See fn. 16. The Outdoor Industry Association reports that an estimated 18 million people cross-country ski, snowshoe and telemark ski annually. The total number of participants for these three sports varies depending upon whether one defines cross-country skiing as including telemark skiing or alpine touring in the backcountry. The true number of annual participants in cross-country skiing, snowshoeing and backcountry skiing whether alpine touring or telemark skiing, is likely somewhere between the Outdoor Industry figures and the figures from the Recreation Statistics Update.
[20] From: Outdoor Industry Association's Outdoor Recreation Participation Study™, 2005, 7th Ed., At www.outdoorindustry.org/pdf/2005_Participation_Study.pdf.
[21] See fn. 13, at p. 301.
[22] Id., at p. 302.
[23] From: Interagency Committee for Outdoor Recreation, An Assessment of Outdoor Recreation in Washington State, October, 2002, at page 43, at www.iac.wa.gov/Documents/IAC/Recreation_Trends/SCORP_Oct_2002.pdf
[24] Id., at p. 48
[25] Exec. Order No. 11644, 37 FR 2877, 1972 WL 19410 (Pres.)
[26] Sept. 2000, GAO Report to Congressional Requesters, Federal Lands, "Agencies Need to Assess the Impact of Personal Watercraft and Snowmobile Use", at p. 20, at www.gao.gov/archive/2000/rc00243.pdf
[27] See www.winterwildlands.org
[28] See examples cited in: Stuebner, "Coalition finds harmony in the backcountry," High Country News, Jan. 15, 2001; Reynolds, "A Line in the Snow," LA Times Online, Feb. 8, 2005; Woodward, "Dutchman Flat Summit on Snowmobile Safety," The Source Weekly, April 8, 2004; DeLong, "Mt. Rose Wilderness snowmobile incursions," Reno Gazette Journal, December 1, 2004; "Snowmobile Access to Mt. St. Helens Questioned by The Mountaineers, Mountaineers Meet With Mt. St. Helens Staff Concerning Conflict," The Mountaineer, January 2004; "Snowmobilers, cross-country skiers, seek snow compromise," Las Vegas Sun, April 27, 2005; For a history of the process utilized in Routt National Forest see "Routt National Forest Begins Long-Delayed Analysis of Winter Recreation," Jan. 20, 2004, at backcountryalliance.org/steamboat/2004_0120_alert.htm
[29] "A telephone survey undertaken in 1998 for Teton County, Wyoming (Morey and Associates, Inc.) collected information on local resident winter participation and attitudes. The study found that 21% of households snowmobiled and 15% cross-country skied in Yellowstone in the winter of 1997-1998. In their usage of GTNP, 12% of residents snowmobiled, 46% cross-country or back-country skied, and 10% used snowshoes. A total of 52% of Yellowstone users and 56% of non-users felt snowmobiles negatively impact Yellowstone in the winter. Of these, 66% felt they are too noisy, 44% felt they affect air quality, 39% felt they disturb wildlife, and 25% feel there are too many." From: Yellowstone SEIS, Chapter 3, Affected Environment, at www.nps.gov/grte/winteruse/fseis/vol1/6-chap3.pdf at p. 110.
Also: "In 1975, Glacier [National Park's] officials decided to ban snowmobiles from the park, primarily because they disrupted the solitude of the national park in winter: 'Over 90% of the comments opposed to snowmobile use related that concern to silence, tranquility, or in other words, aesthetics.'" Yochim, "The Development of Snowmobile Policy in Yellowstone National Park," Yellowstone Science, Spring, 1999, Vol. 7, No. 2, p. 6.
See also Yochim, "Snow Machines in the Gardens, The History of Snowmobiles in Glacier and Yellowstone National Parks," Montana, The Magazine of Western History, August, 2003.
[30] See e.g. Executive Order 11644, Feb. 8, 1972; 42 U.S.C.A. 4321; 36 C.F.R. 2.18; Blaine County Code, Title 5, Chapter 2.
[31] Grand Canyon NP – 1987 Congress enacted Public Law (Pub. L.) 100-91, commonly known as the National Parks Overflights Act. Public Law 100-91 stated, in part, that "noise associated with aircraft overflights at Grand Canyon National Park [was] causing a significant adverse effect on the natural quiet and experience of the park and current aircraft operations at the Grand Canyon National Park have raised serious concerns regarding public safety, including concerns regarding the safety of park users."
[32] DEPARTMENT OF COMMERCE, National Oceanic and Atmospheric Administration, 15 CFR Part 922 [Docket No. 970626156-9077-02] RIN No. 0648-AK01, Regulation of the Operation of Motorized Personal Watercraft in the Gulf of the Farallones National Marine Sanctuary: "MPWC have disturbed natural quiet and aesthetic appreciation; In addition, research indicates that the constancy of speed figures into noise generation, as most people adjust to a constant drone and cease to be disturbed by it, even at elevated levels, but the changes in loudness and pitch of MPWC are more disturbing to people than other watercraft."
[33] Yochim, supra, at fn. 29. See also Bergquist, "Snowmobile-noise proposal draws opposition," Milwaukee Journal Sentinel Online, Oct. 25, 2004.
[34] See "Class Action for Snowmobile Noise in Quebec," by Andre Durocher, Partner, and Claude Marseille, Partner, Fasken Martineau DuMoulin, Stock Exchange Tower, Suite 3400, P.O. Box 242, 800 Square Victoria, Montreal, Quebec, H4Z 1E9, (514) 397-7495, (514) 397-4337.
[35] Morris, "Snowmobilers Gather in NH to Discuss Noise and Other Problems that Threaten their Sport," The Union Leader (Manchester, NH), Sept. 13, 1998.
[36] Id.
[37] See e.g. Berquist, supra, at fn. 33
[38] Industry statistics provided by Matt Lube, Polaris Product Manager
[39] Yellowstone Staff Meeting Minutes, Jan. 27, 2004, available at www.hastingsgroup.com/yellowstonestaff.pdf
See also: NPS Retirees Press Release at www.npsretirees.org/documents/041404%20Coalition%20Yellowstone%20snowmobiles%20FINAL2.html
[40] Id. For raw data from the study see www.hastingsgroup.com/marchchart.pdf
[41] Yellowstone FEIS, Appendix B, at www.nps.gov/grte/winteruse/fseis/vol1/app-b.pdf
[42] Id.
[43] Report, Yellowstone Sound Study, 2000, National Parks Conservation Association, at www.npca.org
[44] The average snowmobile group size in Yellowstone is eight. Snook, "Carbon Monoxide Exposure by Snowmobile Riders," National Park Science, Vol. 17, July, 1997, (citing Machlis, G.E. 1995, Visitor Services Project—Yellowstone National Park report summary, University of Idaho Cooperative Park Studies Unit, Moscow.)
In a 2005 survey on recreational needs in the Inyo National Forest, respondents noted that the size of snowmobile parties had risen in recent years, increasing the potential for conflict. Mammoth Lakes Region of the Inyo National Forest, Winter Recreation Needs Assessment Survey Findings, Working Report, Feb. 2005, at p. 14.
A study done in Minnesota in 1989, reported average group sizes ranging from 6-15 riders. See www.seagrant.umn.edu/tourism/snow.html#6, (citing, Powers, "Economic Impact of Snowmobiling Working Paper #2: Primary Snowmobiler Survey," and "The Economic Impact of Snowmobiling in Northeastern Minnesota: Preparing for the Future," Northeastern Minnesota Development Association and Klaers, Powers and Associates, 1989.)
[45] Berquist, supra, at fn. 33.
[46] Id.

[47] Mathews, "What is Noise? Is snowmobiling being silenced?" Starting Line Products, February 7, 2002, at www.off-road.com/snowmobile/info/sound/whatisnoise.htm.
[48] See e.g. the promotion for ZeeLinx at www.zeelinx.com/List2C1L38T3M5S10.aspx: "It's bumpy and noisy and smells of gasoline, but, hey man, snowmobiling is fun." See also Raben, "Frozen Tango," Snowest Magazine, May 9, 2005: "I have been dreaming of this for months, imagining the hiss of the powder underneath the skis, the nose-searing stink of the exhaust, and the tango my body weaves with the sled."
[49] EPA Fact Sheet, EPA420-F-01-024, September, 2001.
[50] Sarah Janssen, M.D., Ph.D. and Ted Schettler, M.D., MPH, "Health Implications of Snowmobile Use in Yellowstone National Park," March 2003.
[51] "Air Quality Concerns Related to Snowmobile usage in National Parks," U.S. Department of the Interior, National Park Service, Air Resources Division, Denver, Colorado, February, 2000, at p. 9, at www2.nature.nps.gov/air/pubs/pdf/Snowmobile_Report.pdf
[52] Id.
[53] Chapter III, Affected Environment, Winter Use Plans Final Supplemental Environmental Impact Statement, Yellowstone National Park, at www.nps.gov/grte/winteruse/fseis/vol1/6-chap3.pdf
[54] See fn 51, at p. 2.
[55] See fn 51, at p. 15.
[56] See fn 53, at p. 100.
[57] From the New Hampshire Department of Environmental Services, June 16, 2006, at www.des.state.nh.us/ard/nox.htm
[58] This does not take into account emissions that occur as a result of mishaps that might occur due to faulty or broken machines. See e.g. Consumer Product Safety Commission Recall Alert, May 19, 2005, for certain model 2004 and 2005 Polaris machines that could develop crack in fuel tank filler causing fuel to escape.
[59] As it is, the final EPA emissions standards are weaker than the agency's original proposed standards due to opposition from Vice President Cheney's office and John Graham, the administrator of the Office of Management and Budget's Office of Information and Regulatory Affairs (ORA), who sided with the snowmobile industry. See The OMB Watcher, Vol. 3 No. 19, September 16, 2002.
[60] See fn 53, at p. 113.
[61] Id., at p. 113.
[62] Comment, from: www.uwyo.edu/enr/ienr/ WinterUse/UserConflictsIssues.htm as of June 15, 2006.
[63] For e.g. the 2006 Arctic Cat ZP 900 EFI has a 150 horsepower engine, and the 2006 Polaris Fusion sleds have 120 horsepower engines. See www.arcticcat.com and thewayout.polarisindustries.com/thewayout/default.aspx polaris.com.
[64] For e.g. a 2005 Honda Civic Coupe has a 115 horsepower engine. The Ford Focus Sedan has a 130 horsepower engine. A Chevy Cavalier has a 140 horsepower engine. A Toyota Matrix has a 130 horsepower engine.
[65] From: National AG Safety Database, Snowmobiles and Youth Safety Packet, Injury Fact sheet, at www.cdc.gov/nasd/docs/d000901-d001000/d000977/2.html; See also fn. 11.
[66] See fn. 65. Other data suggests that it will take a snowmobiler operating at a speed of only 50 mph, at least 220 feet to come to a stop. See Gilmour and Bowe, "High Speeds at Night A Recipe for Disaster," The Forum, at www.in-forum.com/specials/snowmobiles/articles2.shtml
[67] See "Minnesota, April 6, 2005, SNOWMOBILE FATALITIES, 2003-2004 SEASON" at files.dnr.state.mn.us/enforcement/ incident_reports/snowmobileaccidents04.pdf; Jones, "Weekend snowmobile crashes kill 5, Season of great snow brings riders - and danger," Wisconsin Journal Sentinel Online, Feb. 28, 2005; "Snowmobile Fatalities – Maine, New Hampshire, and Vermont", The Centers For Disease Control and Prevention, 1314 and 1315 JAMA, March 17, 2004—Vol 291, No. 11 (Reprinted); Stark, "Snowmobilers in Yellowstone set record for citations," Billings Gazette, April 5, 2002; "Snowmobile Fatalities," Journal of Forensic Sciences, Vol. 39, Issue 5, Sept. 1994; See also www.normie.ca/media%20releases/Who%20When%20Where.htm
[68] See Jones, supra, at fn. 67; See also, Farquhar, "Yellowstone's sled violations rise again," Casper Star Tribune, March 14, 2003.
[69] www.arctic-cat.com
[70] www.ski-doo.com
[71] Id.
[72] Id.
[73] thewayout.polarisindustries.com/snowmobiles/default.aspx
[74] Id.
[75] www.yamaha-motor.com/sport/products/modelhome/431/0/home.aspx
[76] The ad ran as the back cover on November and December 2005 and January 2006 issues of Blue Ribbon Magazine as well as other national and regional motorized publications.
[77] From: LaChapelle, "Deep Powder Snow," Durango, CO., Kivaki Press, p. 3, 1993.
[78] Reported by Kathleen Rivers, member, Wood River Valley Winter Coalition.
[79] See Powers, supra, at fn. 44. See also www.seagrant.umn.edu/tourism/snow.html#6.
[80] Rivers, supra, at fn. 78.
[81] The NVUM homepage is at www.fs.fed.us/recreation/programs/nvum/
[82] From: Public Opinions and Attitudes on Outdoor Recreation in California 2002, An Element of the California Outdoor Recreation Plan, December, 2003 at www.parks.ca.gov/pages/795/files/poa2002final.pdf, at p. 27
[83] From: 2002 Idaho Outdoor Recreation Demand Assessment, p. 111, at www.idahoparks.org/assets/content/docs/2002_needs.pdf
[84] Id., at p. 87.
[85] From: Idaho Statewide Motor Vehicle Traveler Study, 1999-2000 Data, Trail Use Preferences, at www.cnr.uidaho.edu/travelerstudy/pdffiles/trailbasedrec.pdf
[86] From: Idaho All Snowmobile Registration Designation Statistics 2001-2005, at www.idahoparks.org/datacenter/recreation_statistics.aspx
[87] From Montana Statewide Comprehensive Outdoor Recreation Plan, at Chapter 3, p. 38, at fwp.mt.gov/parks/admin/scorp.html
[88] Id., at p. 41.
[89] Id., at p. 44.
[90] From: Chapter 3, Nevada Statewide Comprehensive Outdoor Recreation Plan, 2003, at p. 87, at http://www.parks.nv.gov/scorp.htm
[91] Id., at p. 88.
[92] From: Oregon Statewide Comprehensive Outdoor Recreation Plan, 2003-2007, Oregon Parks and Recreation Department, at egov.oregon.gov/OPRD/PLANS/scorp_review.shtml
[93] South Dakota Statewide Comprehensive Outdoor Recreation Plan, 2002, at p. 43 and 55, at www.sdgfp.info/Publications/Parks/SCORP_MASTER.pdf
[94] From Utah State Comprehensive Outdoor Recreation Plan, 2003, at p. 73. at www.stateparks.utah.gov/administration/planning/documents/SCORP2003.pdf
[95] Compare data at www.snowmobile-alliance.org/Facts_and_Friends.html that shows 25,827 registrations in 2004, with "An Economic and Social Assessment of Snowmobiling in Utah", Utah Department of Natural Resources, at p. 1, at www.stateparks.utah.gov/administration/planning/documents/snowmobilingassessment.pdf which shows 32,000 registrations in 1998.
[96] From: An Assessment of Outdoor Recreation in Washington State, Interagency Committee for Outdoor Recreation, October 2002, Appendix 4, at p. 106, at www.iac.wa.gov/Documents/IAC/Recreation_Trends/SCORP_Oct_2002.pdf.
[97] Id., at p. 2
[98] From "Vision 2010, Wyoming StateTrails Program Plan, November 2004", at p. 11, at wyotrails.state.wy.us/pdf/VISION2010.WY.pdf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