WINTER WILDLANDS ALLIANCE

WINTER RECREATION ON NATIONAL FOREST LANDS

A COMPREHENSIVE ANALYSIS OF MOTORIZED AND NON-MOTORIZED OPPORTUNITY AND ACCESS

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WINTER RECREATION ON NATIONAL FOREST LANDS

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

June, 2015
By Hilary Eisen

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EXECUTIVE SUMMARY

The purpose of this report is to provide data on winter recreation use, opportunity and access on National Forest lands. The information presented here was collected from Forest Service offices across the country and is the most complete compilation of its kind. Presented on a forest-by-forest as well as Regional basis, the data is reported as use levels, miles of available motorized and non-motorized groomed trails, and acres open and closed to motorized use.

This is an update of a 2006 report titled Winter Recreation on Western National Forest Lands.[1] It is expanded to include 77 forests - 19 that the original report did not cover - and uses the most up to date information available from the Forest Service, acquired though Freedom of Information Act (FOIA) requests in 2014. The need for this report is similar to the first, as winter recreation use and conflict on public lands – and National Forest lands in particular – has only escalated in the decade since the original report was issued.

Participation in winter recreation is steadily growing at both ends of the spectrum. The most recent government survey, conducted in 2010, estimates that participation in cross-country skiing, snowshoeing, and snowmobiling in the United States have more than doubled since 1982-83. See Figure 1, pg. 3.

Opportunity and access are central issues to all user groups. 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 geographical overlap between motorized and non-motorized winter recreationists. Before that time, motorized use was generally limited 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 "powder sleds" designed for off-trail travel vastly increased the reach of snowmobiles allowing the newer, more powerful machines to dominate terrain previously accessible only by backcountry skis or snowshoes.

This report provides concrete data to Forest Service officials and public land users to help them better address the issue of equitable opportunity and access for quality winter recreation on National Forest lands. In 2014 Winter Wildlands Alliance submitted Freedom of Information Act (FOIA) requests to each National Forest receiving regular snowfall. See Table 1, pg. 11. 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; miles of managed motorized snow trails, routes, or roads; miles of managed non-motorized snow trails, routes, or roads; GIS data related to winter recreation on National Forest lands.

In addition, using data from the National Visitor Use Monitoring Program (NVUM) conducted by the Forest Service, Winter Wildlands Alliance gathered annual visitor numbers for cross-country skiing, snowshoeing and snowmobiling for each forest. NVUM data shows that these forests receive 6.9 million cross-country skier and snowshoer visits annually and 4.0 million snowmobile visits annually. See Figure 2, pg. 3.

The FOIA responses show that, of the 176 million acres of National Forest land within the forests that receive regular snowfall, approximately 94 million acres, or 53%, is open to snowmobiles. See Figure 3, pg. 4.

Significantly, of the approximately 63.4 million acres officially designated as non-motorized, more than half 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 many skiers and snowshoers. Many acres of Wilderness that are included in this report do not support skiing or snowshoeing because of a lack of snow. Similarly, many of the acres that are technically open to snowmobiling do not have enough snow to support use. One much-needed element of further research is a better understanding of how designated Wilderness areas provide viable winter recreation opportunities by determining which Wilderness lands receive enough snowfall to support winter recreation and are sufficiently close to allow day-use access.

Despite the fact that the NVUM surveys show 58% more cross-country skier and snowshoer visits than snowmobile visits, more than one and a half times as many acres are open to motorized use than designated as non-motorized in winter. When difficult-to-access Wilderness areas are taken out of the equation the disparity becomes more severe, with three times as much designated motorized acreage as there is non-motorized, non-Wilderness acreage.

As for managed winter trails, the FOIA responses show an estimated 26,728 miles of managed snow trails in these National Forests. Just 5,746 miles, or 22%, are designated as non-motorized. See Figure 4, pg. 5.

The trails data provided in this report, while the best available at the moment, do not reflect the complete inventory of trails on National Forest lands. As it is, however, the data show that there are 4 times more winter trails open to snowmobiles than there are trails designated as non-motorized. There are several reasons why snowmobile trail miles vastly outnumber non-motorized trail miles. For one, snowmobiles cover much greater distances in a day than skiers or snowshoers do and therefore desire a more expansive trail system. However, this discrepancy in distance traveled is the very reason that there is a need for more non-motorized areas outside of Wilderness – areas near plowed parking areas should be prioritized for non-motorized use in order to remedy this inequity.

Local snowmobile clubs often pay to groom motorized trails, which are generally funded at least in part through snowmobile registrations. These trails are often also funded through

Recreational Trails Program (RTP) dollars, which are derived from the federal fuel tax. Anybody who buys gas for a vehicle pays into this fund. Both motorized and non-motorized users rely on Sno-Parks in states such as California, Idaho, Oregon, and Washington, which are funded through user fees. Nordic ski grooming operating costs are usually covered through a variety of means as well, such as use fees, although there is no mandatory state registration fee for skiing. Both motorized and non-motorized users share a variety of funding sources and funding is a challenge for all user groups.

The disparity between motorized and non-motorized opportunity and access is repeated on a forest-by-forest and Region-by-Region basis across the nation. As a result it is difficult for skiers and snowshoers to find a quality recreation experience, and with increasing use levels there is escalating conflict between motorized and non-motorized users on National Forest lands.

Multiple-use is defined as the "management of all the various renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people."[2] This does not mean that all activities should or need to occur in all places. In fact the Multiple Use and Sustained Yield Act states that multiple use management specifically allows for land to be used for "less than all of the resources; and harmonious and coordinated management of the various resources".[3] Winter Wildlands Alliance and our constituents contend that in many cases the designation "multiple-use" is a misnomer and is de facto single use: motorized. In other words, while skiers and snowshoers have access to multiple-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 many of the forest lands designated as multiple-use because those lands see high levels of snowmobile use often diminishing the skiing and snowshoeing experience.

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."

In 2005, the Forest Service released new regulations to better manage and address the impacts associated with off-road vehicle use on National Forest lands and comply with Executive Order 11644. The 2005 Travel Management Rule marked a fundamental shift in how the Forest Service manages motorized recreation but it left management of over-snow vehicles (OSVs) as optional.[4] Following a challenge by Winter Wildlands Alliance, a Federal Court ruled that the OSV exemption in the 2005 Rule was unlawful and ordered the Forest Service to write a new rule to address this issue. The new Over-Snow Vehicle Rule was published in January 2015 and requires all National Forest Units that receive adequate snow to designate routes and areas where OSV use is allowed. Once these designations are published on an OSV Use Map, OSV use that is not in accordance with the map is prohibited. Some forests have already begun this process, and many more will do so in the coming years.

The data in this report provide a baseline understanding of winter travel management on National Forest lands at the start of this winter travel planning era. Through winter travel planning we hope that, in every applicable National Forest Unit, sizeable and accessible areas will be managed for non-motorized use to ensure 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 Alliance believes that winter travel planning should prioritize protection of wintering wildlife and critical winter habitat over all recreation use, whether motorized or non-motorized.

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.[5] 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.[6] Skiers and snowshoers have ventured into the backcountry ever since. The first ski race in the United States took place in 1860 in California.[7] 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.[8]

As to historical snowmobile use, attempts to build over-the-snow machines date back to the 1920s.[9] In 1935 a utilitarian snowmobile that could carry twelve people was developed for emergency transport[10] and the timber industry also made use of an early snowmobile.[11] 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.[12] The specifications for the Sno-Jet (a company purchased by Kawasaki) made in 1976 show a 355-pound machine with a 338 cc engine.[13]

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."[14] For example, the Snowmobile.com "Mountain Snowmobile of the Year" for 2015, the Ski-Doo 800 Summit with T3, weighs 467 pounds and has a 799.5cc engine that reaches up to 7,900 RPMs.[15]

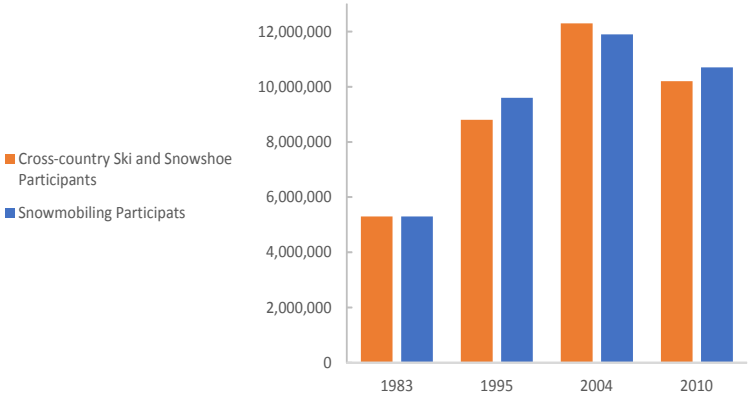
These advances in technology have expanded the terrain used by snowmobiles, leading to conflicts with skiers and snowshoers. The National Survey on Recreation and the Environment, a collaborative study co-sponsored by the Forest Service, concludes, "new technologies and better modes of accessing backcountry will continue to shift the nature of the demand for outdoor recreation."[16] The newest modes of backcountry winter travel include "snow bikes" – modified motorcycles with tracks instead of wheels – and "fat bikes" – bicycles with large, low-pressured tires designed for over-snow use – and have brought an even broader diversity of winter users into the backcountry.

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.[17] Prior to that time, snowmobiling was not even included in the surveys, the first of which was conducted in 1960.[18] The most recent survey, conducted in 2010, estimates that in the United States 10.7 million people snowmobile annually.[19] In 2014 there were 1,397,262 snowmobiles registered in the United States.[20]

Figure 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 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.[21] By the winter of 1982-83 there were an estimated 5.3 million cross-country skiers (the survey did not track snowshoeing or telemark/alpine touring ski participation).[22] The most recent government surveys show that in the United States 10.2 million people cross-country ski or snowshoe annually.[23] See Figure 1. Forest Service surveys show that National Forests receive almost 7 million cross-country ski or snowshoe visits each year.[24] It is difficult to compare individuals and user days but these numbers both serve to indicate that Nordic skiing and snowshoeing are increasingly popular activities across the nation.

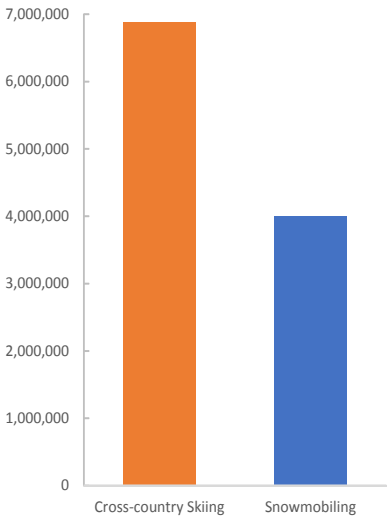
The Outdoor Foundation reports that 8.12 million people participated in cross-country skiing, snowshoeing, or telemark skiing in the 2012-2013 winter season.[26] By comparison, the Outdoor Industry Association reported that there were 2.98 million people who participated in snowmobiling during the 2012-2013 season. Participation in backcountry, or "undeveloped", skiing is projected to be one of the fastest growing forms of outdoor recreation through 2060 while participation motorized snowsports is projected to be among the slowest growing activities.[27] At the same time, hybrid skiing – using snowmobiles to access backcountry ski terrain – has grown in popularity although there are no hard numbers for how many people pursue this activity each year.

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 this report show that these forests receive 6.9 million cross-country skier and snowshoer visits annually and 4.0 million snowmobile visits annually. Backcountry skiing is usually classified as cross-country skiing in NVUM surveys. See Table 1 for forests studied and Figure 2 for NVUM visitation estimates.

In their study of recreation trends, the 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."[28] 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."[29]

Figure 2: National Forest Annual Visits per Activity in Snowbelt States

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



COMPETING RECREATION USES ON A FINITE RESOURCE

The National Forests identified in Table 1 encompass a total of 176 million acres and include all of the forests that receive regular snowfall and manage for winter recreation.

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. In addition, new Forest Service regulations that mandate winter travel planning provide context and an opportunity to revisit winter recreation management and address inequities on Forest Service 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 increasingly being closed off to them.

In an effort to shed more light on these competing assertions, in 2014, Winter Wildlands Alliance submitted Freedom of Information Act (FOIA) requests to each of these National Forests.[30] The FOIA requests sought, from each individual National Forest, documentation of the following:

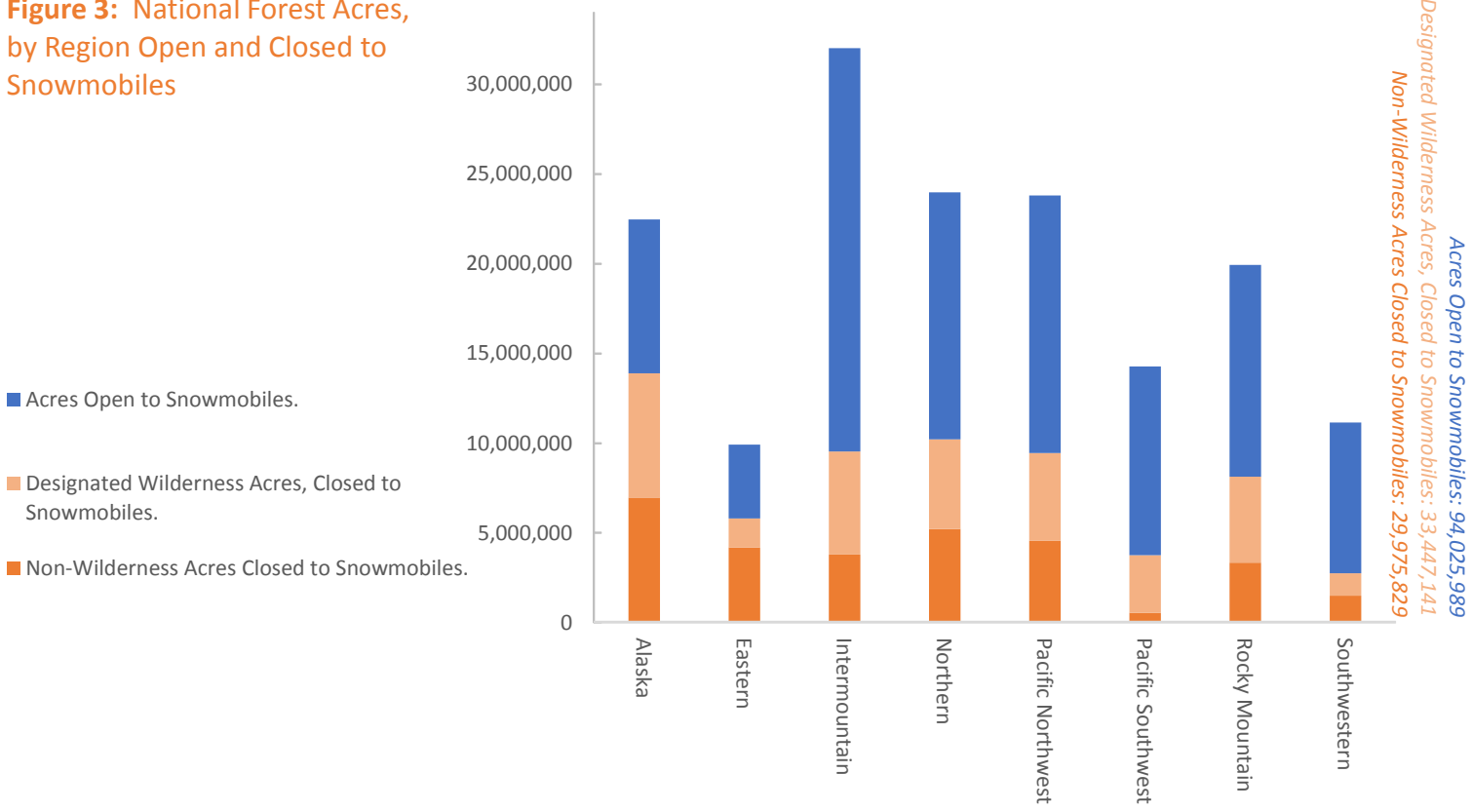
1. Number of acres open to snowmobiles.
2. Number of acres designated as non-motorized in the winter, including Wilderness areas
3. Miles of trail or road managed for motorized over-snow use
4. Miles of trail or road managed for non-motorized winter recreation
5. Forest closure orders, travel management plan documents, or other decisions and supporting documents governing the use of over-snow vehicles
6. Surveys of public use, attitudes, preferences, or opinions concerning winter recreation
7. Reports detailing the economic impact of winter recreation
8. GIS data showing winter recreation management

The majority of forests[31] responded and the data were refined after many hours of follow up calls and submission of amended requests.

The responses received from the forests show that approximately 94 million acres, or 60%, of the forest land within the Snow Belt (forests that receive regular snowfall) are open to snowmobiles. See Figure 3.

It bears mention that, of the approximately 63 million acres officially designated as non-motorized, more than half 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. Interagency 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"[32] and that "simply getting into undeveloped areas of a National Forest in winter can be difficult, sometimes impossible."[33] This isn't to say that Wilderness areas do not provide backcountry skiing opportunities – indeed, Wilderness areas are an important part of the backcountry skiing experience – but these more remote destinations need to be supplemented by areas with easier access to provide a broader range of non-motorized opportunities.

Figure 3: National Forest Acres, by Region Open and Closed to Snowmobiles



As for trails, the FOIA responses show there are an estimated 26,728 miles of managed snow trails in these National Forests. Five percent of these trails are designated as non-motorized. See Figure 4.

NVUM surveys show that cross-country skier and snowshoer visits to National Forest lands are nearly double the number of snowmobile visits. In that light, the fact that there are more than one and a half times the number of forest acres designated motorized as non-motorized in winter is inequitable.

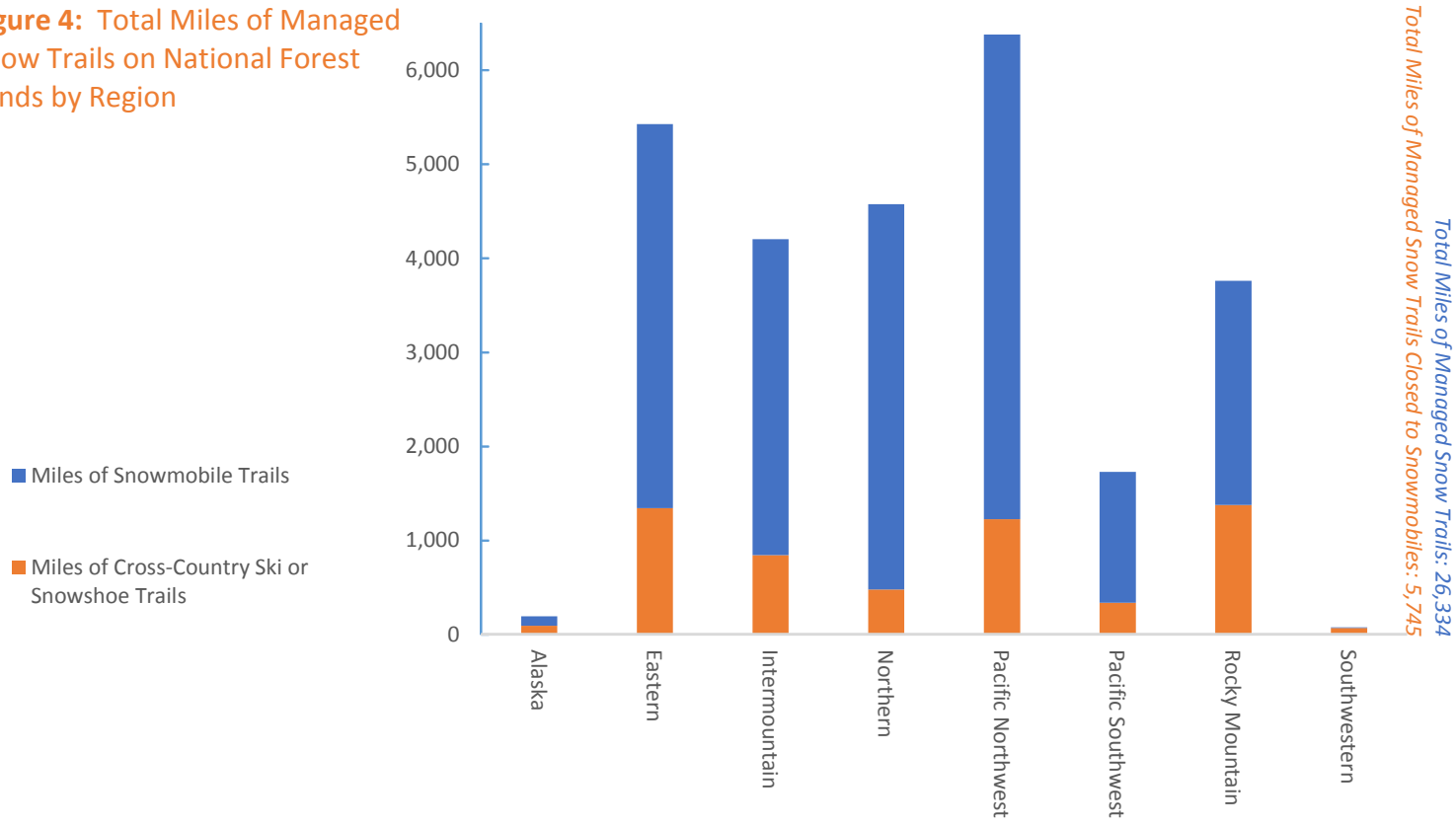
The consequence of this disparate situation is unequal opportunity for skiers, snowshoers and other quiet winter recreationists when compared to OSV users and escalating conflict between motorized and non-motorized uses on National Forest land.

Public land managers at the highest levels noted 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."[34]

Winter recreation in its myriad forms is a popular use of National Forest lands. Locals and visitors alike spend a significant amount of time and money skiing, snowshoeing, and snowmobiling on our National Forests.[35] However, very few of the forests that receive enough snow to support winter recreation have done any form of comprehensive planning to determine how best to manage these uses. In the absence of deliberate planning, snowmobile use is primarily limited only by the constraints of terrain and technical capability. As snowmobiles have become more powerful and new over-snow vehicles, such as snowbikes, have appeared, the amount of terrain that is inaccessible to motor vehicles continues to shrink. While over-snow vehicles certainly have a place on our nation's forests, it has become more important than ever for Forest managers to institute restrictions on motorized over-snow use in order to protect sensitive winter ecosystems and non-motorized winter recreation opportunities.

Winter travel management planning is a huge opportunity to bring balance to our National Forests. By stepping back and reassessing where on the landscape motorized use is truly appropriate, the Forest Service and those who participate in the winter travel planning process will be able to take steps to reduce user conflicts and ensure that high quality winter recreation opportunities exist for all users. For example, while there are abundant opportunities for quiet and solitude deep in the backcountry, fewer opportunities exist for non-motorized winter recreation closer to home. Creation of sizable and accessible winter non-motorized areas on each National Forest, with enforceable common sense boundaries, will go a long way toward meeting the public's desire in this regard and reducing user conflict.

Figure 4: Total Miles of Managed Snow Trails on National Forest Lands by Region



This report explores the current on-the-ground management situation for winter recreation across all of the National Forests that have significant snow-based recreation opportunities and is presented to assist in the winter travel planning process. In many instances there was previously no cohesive record of how winter recreation was managed on a specific forest. However, with the implementation of the new Over-Snow Vehicle Travel Management Rule, it is important to understand the current state of winter recreation in order to properly plan for the future.

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.

IMPACTS OF SNOWMOBILE USE ON NON-MOTORIZED USERS

While it is possible for backcountry skiing and snowshoeing to occur alongside motorized recreation, OSV activity impacts human-powered winter recreation in a number of ways. These impacts often diminish the human-powered recreation experience and drive skiers and snowshoers away from trails or areas that are frequented by OSVs. These impacts fall into three categories: pollution, safety, and footprint.

OSV pollution comes in two forms – noise and exhaust. Noise has a significant impact on the cross-country skiing and snowshoeing experience[36] and in multiple-use backcountry areas, snowmobile noise can be difficult to escape. Snowmobile noise can travel up to 10 miles depending on speed, type of machine, and wind[37] – further than most non-motorized recreationists travel in a day. Likewise, snowmobile exhaust is another major detriment to a quality experience for skiers and snowshoers. Emissions from snowmobiles emit many carcinogens and can pose dangers to human health.[38] While most of the acute toxic effects of snowmobiles are limited to staging areas and parking lots, the smoke and fumes from snowmobiles on trails can dramatically reduce the quality of the experiences of non-motorized users along the trail as well. Newer, unmodified, machines emit less noise and exhaust pollution than older snowmobiles but they are still not entirely clean or quiet. In addition, many of the machines used on National Forest lands today are older 2-stroke sleds and/or have after-market modifications that increase noise and exhaust levels.

OSVs pose a safety concern for backcountry skiers and snowshoers just as wheeled motorized vehicles can be a safety issue for pedestrians. Avalanches aside, excessive speed, reckless driving, alcohol, and inexperience are the most commonly issued citations and causes of accidents involving snowmobiles.[39] Most winter backcountry trails have no posted speed limit[40] and the most powerful snowmobiles today have from 125- to 177-horsepower engines,[41] allowing them to travel at very high rates of speed. Snowmobiles weigh up to 600 pounds, and many can travel at speeds in excess of 90 miles per hour.[42] At such speeds, a snowmobile will travel almost 200 feet before being able to come to a stop.[43] The tremendous power and weight of snowmobiles are incompatible with skiers, snowshoers and other pedestrian users on winter trails and backcountry terrain.

Both skiers and snowmobilers travel into backcountry areas in search of untracked snow. However, 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. Improvements in power, maneuverability 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.[44] By comparison, a skier or snowshoer will be hard pressed to cover more than five to 10 miles on ungroomed snow in a day. It can take less than an hour for a single snowmobile to completely track up a slope that multiple skiers could otherwise enjoy for days. 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.

For more information on how over-snow vehicles impact non-motorized users and the environment, and management recommendations for how to minimize these impacts, please see the recently published Winter Wildlands Alliance paper "Best Management Practices for Forest Service Travel Planning."[45]

SUMMARY OF RESULTS

The 77 National Forests covered in this report include approximately:

- 176,008,137 acres of land (18,559,178 acres of land are unclassified, where designation status is uncertain)
- 94,025,989 acres of land open to snowmobiles
- 29,975,829 acres of non-wilderness land closed to snowmobiles
- 33,447,141 acres of designated Wilderness land, also closed to snowmobiles

See Figure 5.

These forests contain:

- 5,746 miles of cross-country ski and snowshoe trails
- 20,590 miles of snowmobile trails

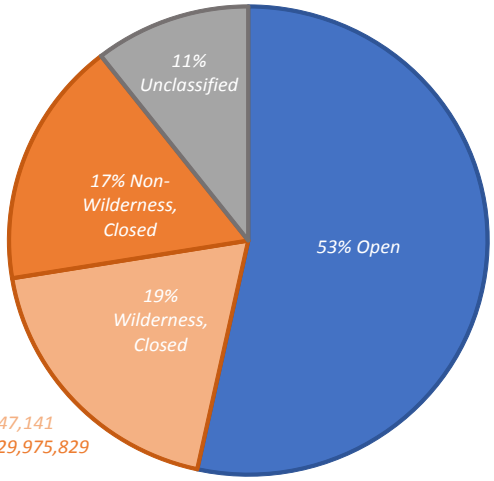
See Figure 6.

The NVUM surveys show that in forests that manage for winter recreation, the number of cross-country skier and snowshoer annual visits far exceed the number of snowmobile annual visits. The NVUM surveys show that in these forests, there are an estimated:

- 6,878,106 cross-country ski and snowshoe visits annually
- 4,002,136 snowmobile visits annually

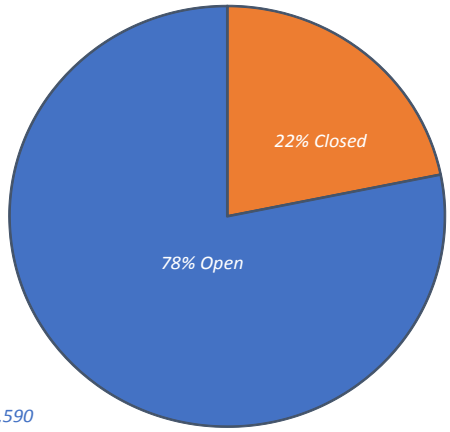
See Figure 7.

Figure 5: Total Acres of Snow Belt National Forest Lands Open and Closed to Snowmobiles



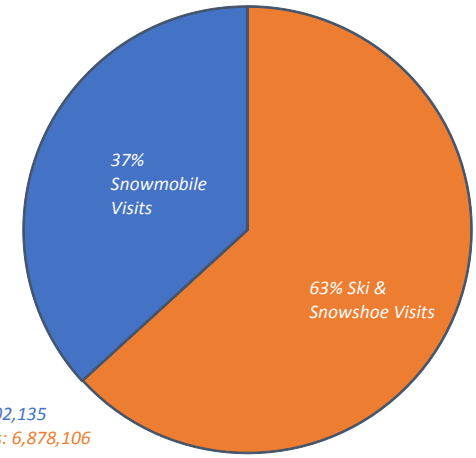
Open: 94,025,989
Wilderness, Closed: 33,447,141
Non-Wilderness Closed: 29,975,829
Unclassified: 18,559,178

Figure 6: Total Miles of Managed National Forest Snow Trails Open and Closed to Snowmobiles



Miles of Snowmobile Trails: 20,590
Miles of Cross-Country Ski and Snowshoe Trails: 5,746

Figure 7: Annual Visits to Snow Belt Forests by Snowmobiles, Cross-Country Skiers, and Snowshoers



Snowmobile Visits: 4,002,135
Ski and Snowshoe Visits: 6,878,106

These numbers confirm that the vast majority of National Forest lands where winter recreation occurs are open to snowmobiles in one form or another. By comparison, only a fraction of those lands, and even fewer trails, are set aside for human-powered winter recreation.

At the same time, NVUM data show greater numbers of cross-country ski and snowshoe visits than snowmobile visits on these forests.

Nationwide, only 22% of the miles of managed winter trails are designated non-motorized, even though there are 1.7 times more cross-country ski and snowshoe visits than snowmobile visits to National Forest lands. Likewise, snowmobilers have access to 53% of the forest acreage, compared to human-powered recreationists, who, in order to enjoy a motor-free experience, are left with just 36% of the total acreage. Of this, more than half is Wilderness, which is largely inaccessible to skiers and snowshoers.

Similar disproportions exist in the individual forests in each Region. Although human-powered recreation visits outnumber snowmobile visits to National Forests across the country, less than half of the lands in National Forests that receive regular snowfall are designated as non-motorized.

CONCLUSION

This report shows that snow-based recreation opportunities for motorized uses on National Forest lands far exceed those for non-motorized use. 53% of the lands across the forests within the Snow Belt are open to motorized use in winter despite the fact that winter non-motorized use in these forests makes up almost two-thirds of the use (63%).

The imbalance in the acres and trail miles of forest open to snowmobiles versus those managed for winter non-motorized recreation has to be addressed. The adverse impacts that snowmobiles have on human-powered recreation, including noise, exhaust, safety concerns, and tracks create a disparate situation where the activities of one user group disproportionally affect the ability of another to use and enjoy public lands.

By implementing the Over-Snow Vehicle Rule, National Forests have the opportunity to bring management of forest lands back into balance. Through travel planning land managers have an obligation to "promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands" as directed by Executive Order 11644.

Forests that have proactively created winter travel plans set an example for possible ways to zone the backcountry and bring balance to the winter recreation landscape. For example, the White River National Forest completed a travel management plan in 2011 which addressed motorized recreation across all seasons. When drafting the plan forest managers took non-motorized recreation and other activities into account, creating a plan that reduces conflict, protects natural resources, and allows for the continuation of high-quality motorized recreation.

Winter travel planning presents an opportunity to think proactively about how to balance various types of winter recreation across a forest, especially with the ever-growing popularity of snowsports. Winter travel plans should provide space for non-motorized activities in both the frontcountry and backcountry, designate OSV use areas with enforceable boundaries, and take into account the current and projected demands of the local recreation community. The Winter Wildlands Alliance BMP document can help ensure winter travel plans satisfy the requirements of the OSV Rule and Executive Orders and provide equitable recreational opportunities.[46]

NOTES ON DATA AND SOURCES

The numbers in this report should be understood to be imperfect. Because very few National Forests have completed comprehensive winter travel planning many forests could not provide accurate data in all cases concerning the miles of trails managed for various forms of winter recreation or the total number of acres open to motorized winter recreation. This report reflects the best-available data as provided by the Forest Service. Trail mileage data were obtained from the Forest Service's national trails database, INFRA Trails, for FY 2014. This database is standardized and consistent across all forests and is the agency's official record for this type of information. However, INFRA Trail mileages are not accurate for all forests because the database is still in the process of being updated. In many cases the Forest Service provided acreage data in terms of total acres open and closed to OSVs. When the Forest Service did not provide an exact number of acres that are open or closed to OSVs on a particular forest we calculated these figures using GIS data when available. GIS analysis was done using a NAD 1983 Contiguous USA Albers projected coordinate system. When GIS data was not available this information was determined by sifting through Forest Plans, other planning documents, and special orders.

Several forests in Region 6 either did not respond to our FOIA request prior to publication or provided an incomplete response. For these – the Umpqua - Rouge River-Siskiyou, and Okanagan-Wenatchee – we have calculated approximate acres open and closed using the best information available.

The number of acres open and closed to OSVs as documented in this report does not necessarily reflect the number of acres that are actually suitable for winter recreation. This is true for both motorized and non-motorized winter recreation as we did not account for variability in terrain and snow accumulation. Some forests have snow depth requirements wherein there must be a set amount of snow before OSV use is allowed in a given area. We did not include this variable into our analysis.

FOIA REQUESTS

During 2014, 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. These FOIA requests are available in Appendix 1 and 2 at the end of 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. Trail mileage data were obtained from the Forest Service INFRA Trails database, and while this data may not be completely accurate, it is the best available data that the Forest Service has.

3. All numbers are best estimates based on the information obtained.

4. The data, ratios and percentages presented in this report apply only to National Forest land. The number of trails or acreages of National Park Service lands, BLM lands, state lands, or other public lands are not included in this report.

5. A copy of the original FOIA request is attached as Appendix 1 to this Report. Appendix 2 is a second request that was submitted when it was believed that the data obtained was incomplete.

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 snowmobile routes".

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 classified 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.

NVUM DATA

Existing National Forest plans and other agency needs mandate visitor use monitoring. Therefore, the Forest Service instituted the National Visitor Use Monitoring program in 2000.[47] 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 visits, the NVUM program obtains descriptive information about National Forest visitors, including the activity in which the visitor participated. Included in the list of activities are snowmobiling and cross-country skiing/snowshoeing. Skate skiing and other forms of groomed Nordic skiing, ungroomed Nordic skiing, backcountry ski/snowboard touring, and snowshoeing are all considered "cross-country skiing" in the NVUM surveys. However, it is likely that some backcountry skiers report their activity as "downhill skiing" (which the Forest Service considers mainly to be resort-based skiing). Therefore, the visitation numbers for human-powered activities are likely higher than reported in the NVUM surveys.

It is important to keep in mind that NVUM estimates of visitor use are estimates and may not capture the true extent of a particular activity on a forest. NVUM survey sites are selected "using a stratified random sample of the times and locations where recreational visitors can be counted." However, the places that people choose to recreate, particularly for activities like skiing, snowshoeing, and snowmobiling are not distributed across Forest Service sites such that a random sampling is likely to capture them. Outdoor recreationists seek out particular experiences that can only be found in specific locations, and without weighting the site selection process to ensure that these favorite locations are included, the sample will result in an underrepresentation of these activities.

Additionally, data sampling at NVUM sites occurs on randomly selected days without adequately taking into account the variables that make any particular day optimal for a particular activity. NVUM sampling is unlikely to produce accurate data on winter recreational use because it fails to account for variables like whether there is enough snow for an activity to occur or differences in weather conditions that may encourage, or discourage, winter recreation on a particular day.

In reporting the amount of visitation to a forest for a particular activity, the NVUM surveys report visitation estimates only down to .01% 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% visitation means less than .005% visitation and a NVUM report of .01% visitation means greater than or equal to .005 % visitation.

NVUM data are provided in terms of percent participation. In order to obtain numbers of actual visits we multiplied the percent participation for a given activity on a given forest by the visitation estimate for that forest. This approach was recommended by the Forest Service NVUM program.[48]

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 required to determine statewide outdoor recreation trends and demands. The data used in these reports comes from many sources including academic, NGO, and government surveys and GIS analysis. This data are 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. SCORP reports are used in this study as a supplement to NVUM data to gain a better understanding of snowsports participation.

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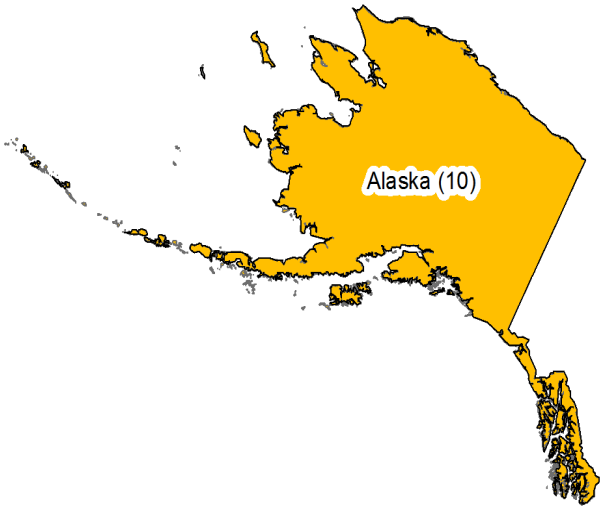


The Forest Service manages forests by Region with each Region encompassing several states or portions of states, as shown in Figure 8. While a National Forest may fall in more than one state, each Forest is located in a single Region. In general, states are fully within a single Region but some, such as Wyoming and Idaho, are split between multiple Regions.

Not all of the National Forests within every Region 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.

Several 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.

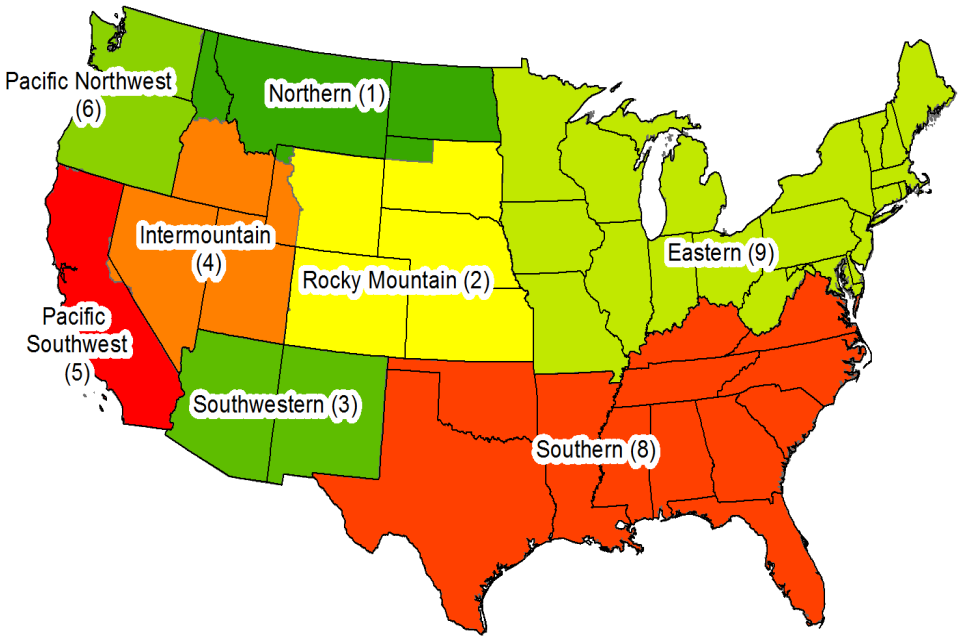


Figure 8: Forest Service Regions.
Source: USFS, ESRI.
Map created 2/2015 by Winter Wildlands Alliance.

TABLE 1: NATIONAL FORESTS STUDIED

Region 1 (Northern): Beaverhead-Deerlodge, Bitterroot, Custer-Gallatin, Flathead, Helena, Idaho-Panhandle, Kootenai, Lewis and Clark, Lolo

Region 2 (Rocky Mountain): Arapaho-Roosevelt, Bighorn, Black Hills, Grand Mesa-Uncompahgre-Gunnison, Medicine Bow-Routt, Pike-San Isabel, Rio Grande, San Juan, Shoshone, White River

Region 3 (Southwestern): Carson, Cibola, Coconino, Coronado, Kaibab, Lincoln, Santa Fe

Region 4 (Intermountain): Ashley, Boise, Bridger-Teton, Caribou-Targhee, Dixie, Fishlake, Humboldt-Toiyabe, Manti-LaSal, Payette, Salmon-Challis, Sawtooth, Uinta-Wasatch-Cache

Region 5 (Pacific Southwest): Eldorado, Inyo, Klamath, Lake Tahoe Basin, Lassen, Modoc, Plumas, Sequoia, Shasta-Trinity, Sierra, Stanislaus, Tahoe

Region 6 (Pacific Northwest): Colville, Deschutes, Fremont-Winema, Gifford Pinchot, Malheur, Mt. Baker-Snoqualmie, Mt. Hood, Ochoco, Okanogan-Wenatchee, Rogue River-Siskiyou, Umatilla, Umpqua, Wallowa Whitman, Willamette

Region 9 (Eastern): Allegheny, Chequamegon-Nicolet, Chippewa, Green Mountain and Finger Lakes, Hiawatha, Huron-Manistee, Monongahela, Ottawa, Superior, White Mountain

Region 10 (Alaska): Chugach, Tongass

The NVUM surveys for Region 1 forests show there are an estimated:

• 678,332 cross-country ski and snowshoe visits annually
• 506,524 snowmobile visits annually

See Figure A.

Region 1 National Forests contain:

• 24,148,297 acres of land
• 13,998,700 acres of land open to snowmobiles
• 4,999,097 acres of non-wilderness land closed to snowmobiles
• 4,987,877 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Region 1 National Forests contain:

• 475 miles of ski trails
• 4,100 miles of snowmobile trails

See Figure C.

Cross-country ski and snowshoe visits outnumber snowmobile visits on almost every National Forest in Region 1 yet there are almost 4 million more acres of land open to snowmobiles than there are designated as non-motorized and more than 10 times the number of miles of snowmobile trails versus ski trails in the Northern Region.

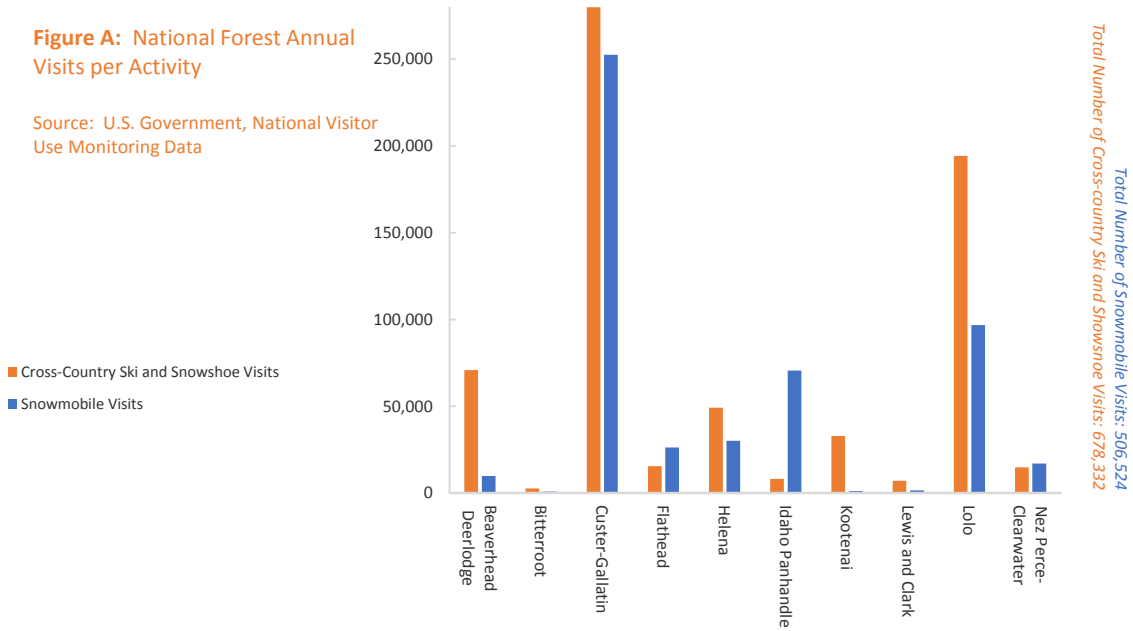
Across Region 1 there is an inequitable balance between the number of non-motorized winter recreationists visiting a forest and the number of acres on that forest that are managed for non-motorized use.

For example, on the Beaverhead-Deerlodge National Forest there are 7.2 times as many annual cross-country ski or snowshoe visits as there are snowmobile visits yet 1.3 times as many acres of the forest are open to over-snow vehicle use. Likewise, on the Kootenai National Forest cross-country ski and snowshoe visits outnumber snowmobile visits 30 to 1 yet there are 7 times as many acres on the forest that are managed for winter motorized use.

However, Region 1 is also unique in that it is home to several forests that have completed comprehensive winter travel management plans under the 2005 Travel Planning Rule. On these forests - the Gallatin, Lewis and Clark, and Helena - we see a much more equitable allocation of land for motorized and non-motorized winter use.[49]

Figure A: National Forest Annual Visits per Activity

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



The Custer-Gallatin National Forest sees almost the same number of cross-country skier visits as snowmobile visits and has almost equal amounts of non-motorized and motorized lands. Thirty-five percent of this forest is Wilderness and an additional 19% is designated as non-motorized while 43% of the forest is open to OSVs.

There are almost 5 times as many cross-country ski and snowshoe visits to the Lewis and Clark National Forest as there are snowmobile visits and a large proportion of the non-wilderness lands on this forest are closed to OSVs. Under the Lewis and Clark winter travel plan OSV use is concentrated in the more developed parts of the forest. The result is a management plan that protects winter wildlands while also providing for high quality snowmobile opportunities.

National trends in snow sport activities are reflected across Region 1. More people participate in non-motorized snowsports than motorized, even though Montana and Idaho are among the top ten states for motorized recreation participation.[50] A University of Montana Institute for Tourism and Recreation Research survey of over 4,000 Montana households found that 21% of survey respondents used ski or snowshoe trails and 18% used snowmobile trails.[51] Likewise, 48% of survey respondents would like to see an increase in the amount of cross-country ski and snowshoe trails and 30% felt there should be more snowmobile trails.[52]

Figure B: National forest Acres Open and Closed to Snowmobiles

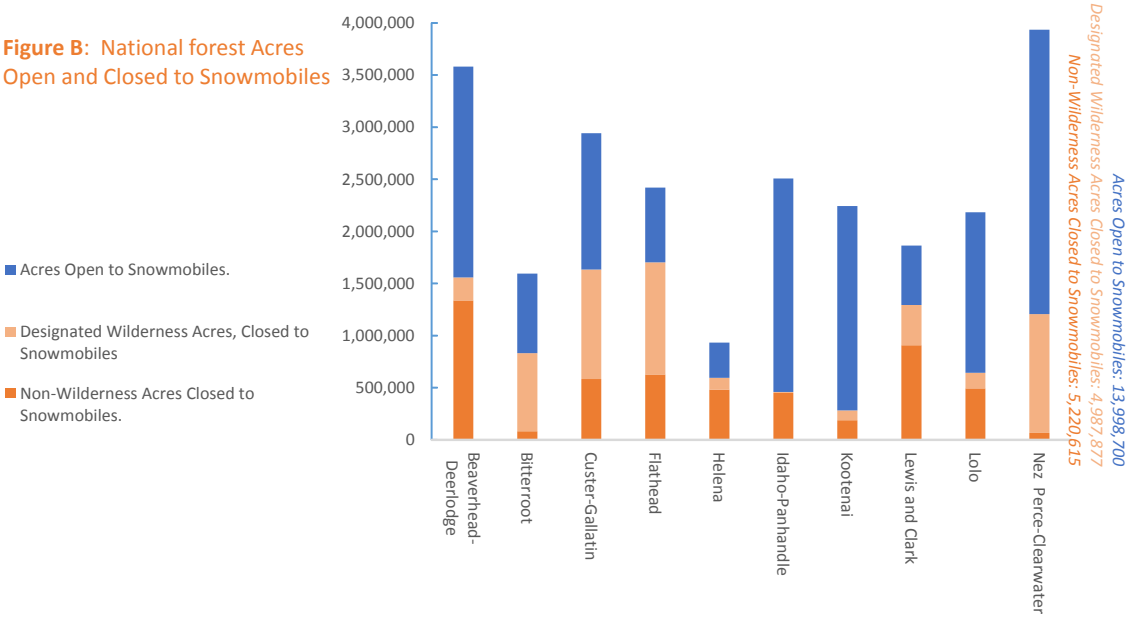
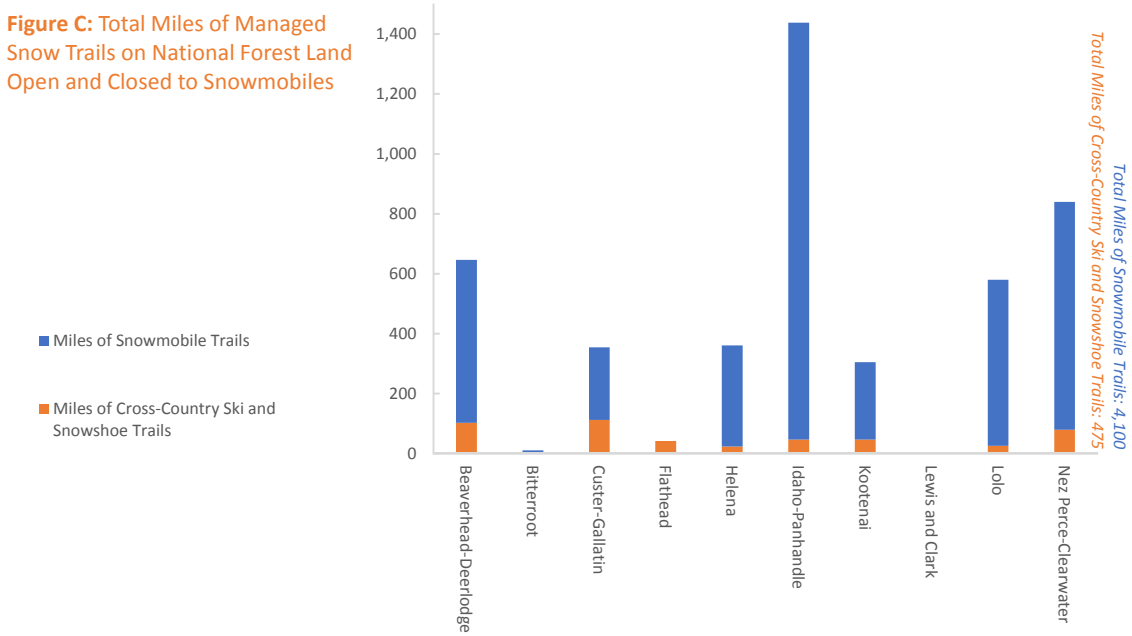


Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 2 forests show there are an estimated:

• 2,198,604 cross-country ski and snowshoe visits annually
• 1,170,669 snowmobile visits annually

See Figure A.

Region 2 National Forests contain:

• 20,479,545 acres of land
• 11,799,009 acres of land open to snowmobiles
• 3,322,569 acres of non-wilderness land closed to snowmobiles
• 4,795,424 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Region 2 National Forests contain:

• 1,374 miles of ski trails
• 2,387 miles of snowmobile trails

See Figure C.

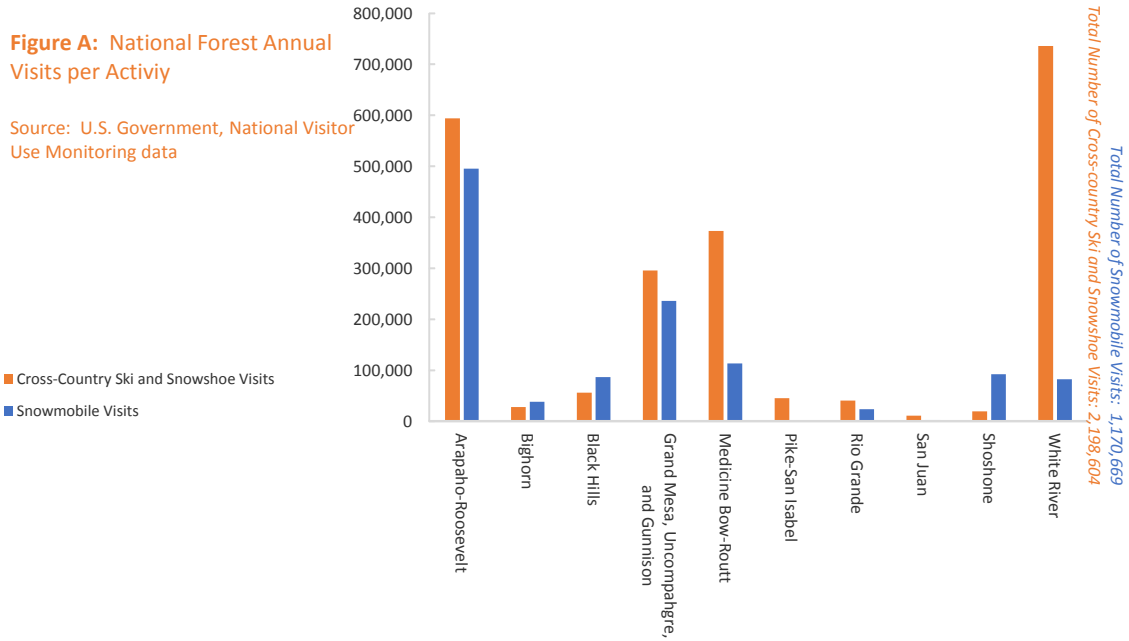
Wyoming forests in Region 2 receive more snowmobile visits than cross-country ski or snowshoe visits annually while all of the Colorado forests in Region 2 receive more non-motorized recreationists each winter. These numbers reflect general statewide recreation trends. In 2013 17% of Coloradans participated in cross-country skiing or snowshoeing, 7.5% participated in backcountry skiing, and 5% participated in snowmobiling.[53] In contrast, snowmobiling is a much more popular activity in Wyoming, where 15% of households participated in snowmobile-based recreation during the winter of 2011-2012.[54]

Overall Region 2 sees almost twice as many cross-country ski and snowshoe visits as snowmobile visits annually yet there are one and a half times more acres of land available for motorized use than are designated for non-motorized activities across the Region. This is most striking on the Pike-San Isabel National Forest, where non-motorized winter visits outnumber snowmobile visits 70:1 yet there are almost three times the number of acres open to snowmobiles as there are designated for non-motorized use. Even more striking, when Wilderness acres are excluded the number of non-motorized acres on the Pike-San Isabel drops to only one tenth of the number of motorized acres.

Winter visitors to National Forest lands have different needs depending on their preferred type of recreation. A 2005 study of winter recreationists on the Medicine Bow-Routt National Forest

Figure A: National Forest Annual Visits per Activiy

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

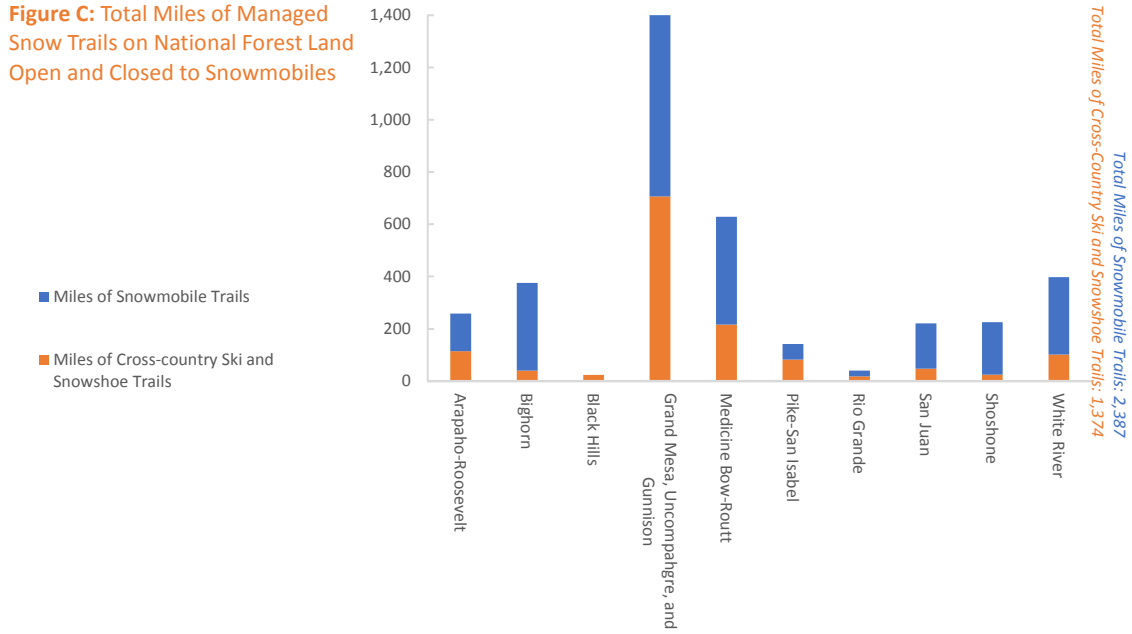


outlined the experiences and access sought by each user group.[55] Skiers and snowshoers desired areas that were free from the noise, smell, and sight of snowmobiles and untracked powder to ski downhill. In addition, hybrid skiers also sought out motorized access points to skiable terrain. Snowmobilers desired groomed and marked trails alongside open play areas and hills but also wanted more acres because they generally travel further than a skier in a day. On this forest there are approximately twice as many acres available for snowmobilers as compared to non-motorized acres where skiers can find the experiences they seek.

The White River National Forest is the only forest in Region 2 to undergo forest-wide winter travel planning prior to the OSV Rule. On this forest we see a much more equitable balance of opportunity. There are almost 9 times as many non-motorized winter visits to the forest and slightly more than twice as many non-motorized acres. If designated Wilderness is excluded then the number of motorized and non-motorized acres on the White River National Forest are approximately equal.

Figure B: National forest Acres Open and Closed to Snowmobiles

Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 3 forests show there are an estimated:

• 251,712 cross-country ski and snowshoe visits annually
• 38,878 snowmobile visits annually

See Figure A.

Region 3 National Forests contain:

• 11,143,430 acres of land
• 8,411,389 acres of land open to snowmobiles
• 1,484,699 acres of non-wilderness land closed to snowmobiles
• 1,247,342 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Region 3 National Forests contain:

• 67 miles of ski trails
• 7 miles of snowmobile trails

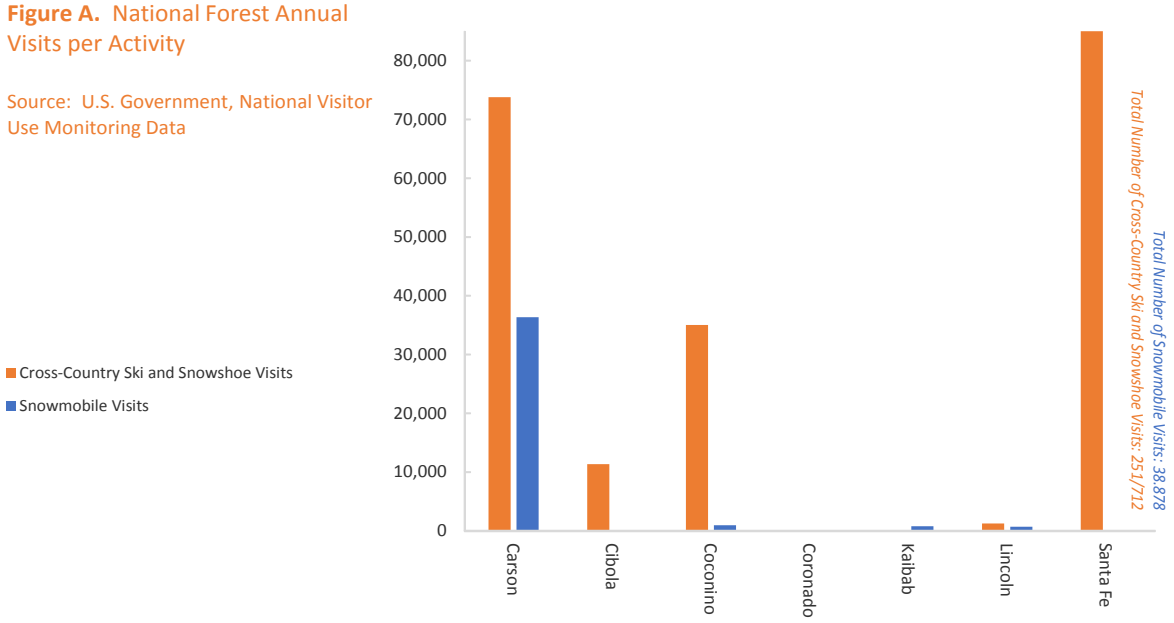
See Figure C.

Snow-based recreation is low for forests in Region 3, which is unsurprising given the climate in the desert Southwest. However, high elevation mountainous areas do provide winter recreation opportunities across Region 3. Approximately 7% of New Mexicans take part in non-motorized snow-sports[56] and 9% of Arizona residents reported moderate participation in cross-country skiing or snowshoeing in 2012.[57]

None of the forests in Region 3 that receive enough snow to support winter recreation currently have winter travel management plans and there are few trails or areas designated for backcountry snow-based recreation. Although the numbers in this report are somewhat misleading given that snow-based recreation is only feasible in limited areas on these forests, they provide a good example of why winter travel planning is needed. Winter travel plans can ensure that snowmobiling is allowed on those areas of the forest where it truly makes sense, as opposed to being allowed anywhere where there might be snow.

Figure A. National Forest Annual Visits per Activity

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



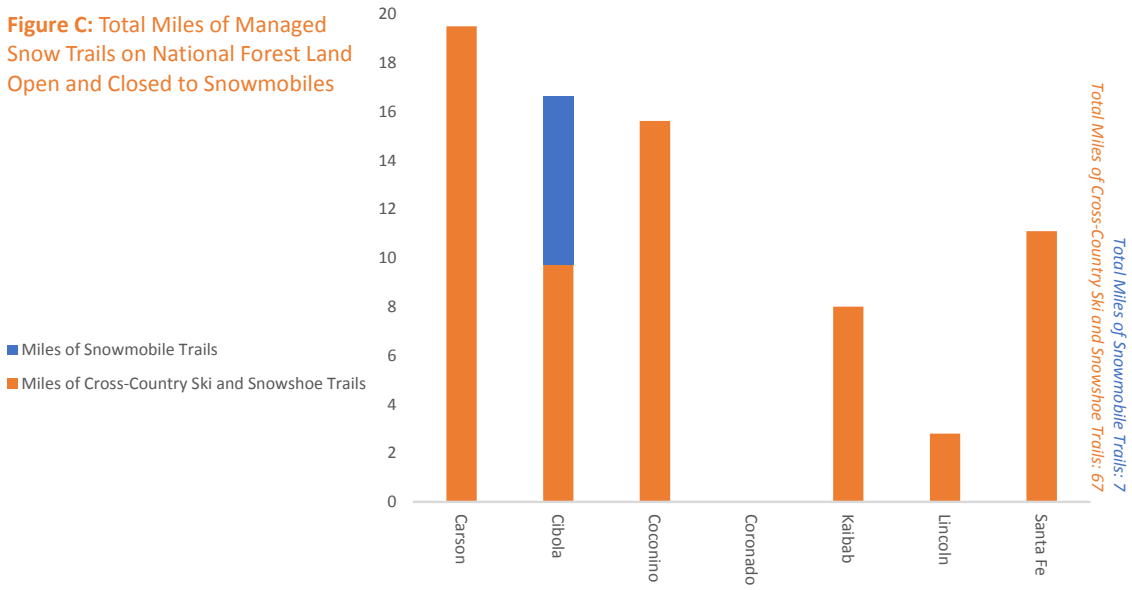
For example, the Kaibab National Forest receives approximately 791 snowmobile visits annually (and 38 cross-country ski or snowshoe visits) but there is virtually no guidance on how OSVs should be managed in any forest planning documents. By default snowmobiles are technically allowed everywhere on the forest except within designated Wilderness. While there are few places on the forest snowy enough to support winter recreation, there has been no analysis of how snowmobiles impact wildlife, natural resources, or other uses on the forest.

With the exception of the Kaibab, cross-country skiing and snowshoeing are far more prevalent across Region 3 forests than is snowmobiling. There are twice as many ski visits versus snowmobile visits on the Carson and Lincoln National Forests, 37 times more cross-country ski and snowshoe visits on the Coconino, and over 3,000 times more cross-country ski and snowshoe visits on the Santa Fe National Forest. No snowmobile visits were recorded during the NVUM surveys for the Coronado and Cibola National Forests and snowmobiles are not allowed off of designated routes on the Coronado.

Figure B: National Forest Acres Open and Closed to Snowmobiles

* Approximate acreage calculated on the best available data

Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 4 forests show there are an estimated:

• 893,975 cross-country ski and snowshoe visits annually
• 594,487 snowmobile visits annually

See Figure A.

Region 4 National Forests contain:

• 31,759,620 acres of land
• 22,469,720 acres of land open to snowmobiles
• 3,779,999 acres of non-wilderness land closed to snowmobiles
• 5,750,811 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Region 4 National Forests contain:

• 839 miles of ski trails
• 3,363 miles of snowmobile trails

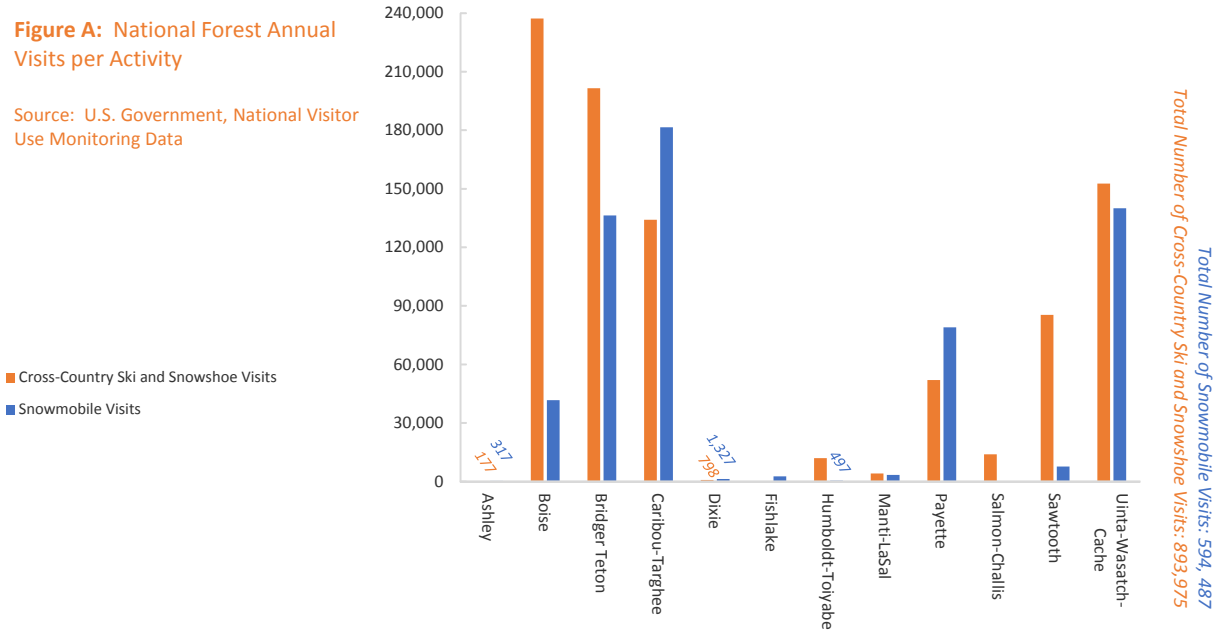
See Figure C.

Overall, National Forests in the Intermountain Region see approximately 1.5 times as many cross-country ski and snowshoe visits as snowmobile visits yet there are almost 2.5 times the number of acres available for over-snow vehicle travel than are closed to motorized use in the winter, over half of which is designated Wilderness. When Wilderness is excluded this difference jumps up to almost six times the number of motorized versus non-motorized acres across Region 4.

Non-motorized winter visits (cross-country skiing, backcountry skiing and snowshoeing) outnumber snowmobile visits on the majority of forests in Region 4. Snowmobile visits outnumber cross-country ski and snowshoe visits on the Ashley, Caribou-Targhee, Dixie, and Payette National Forests. With the exception of the Payette, there are far more acres available for motorized use than are designated non-motorized on these forests. When designated Wilderness is excluded motorized acres far outnumber non-motorized acres across these forests just as with every other forest in Region 4.

Figure A: National Forest Annual Visits per Activity

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



Although there are almost six times more cross-country ski and snowshoe visits than snowmobile visits on the Boise National Forest, only one fifth of the forest is designated non-motorized. There are 11 times more cross-country ski and snowshoe visits than snowmobile visits to the Sawtooth National Forest but only a quarter of the forest is designated as non-motorized. Cross-country ski and snowshoe visits outnumber snowmobile visits on the Manti-La Sal as well, yet only one seventh of this forest is designated as non-motorized.

Most forests in Region 4 manage OSVs through a combination of special orders and Forest Plans. In some cases forests have developed winter travel management plans for certain areas of the forest where OSV recreation conflicts with other types of recreation or management objectives. For example, the Sawtooth National Forest developed a winter travel plan for the Wood River Valley in order to reduce conflict between motorized and non-motorized users. This travel plan is implemented through a special order. Similarly, the Bridger-Teton National Forest developed a winter travel management plan for the northern portion of the forest in order to reduce OSV impacts on wildlife. Both of these travel plans are over a decade old. Only one forest in Region 4 has a winter plan done under the Travel Management Rule and it does not cover the entire forest. The 2005 Caribou Travel Plan encompassed winter use but does not include the Targhee portion of the Caribou-Targhee National Forest.

Figure B: National Forest Acres Open and Closed to Snowmobiles

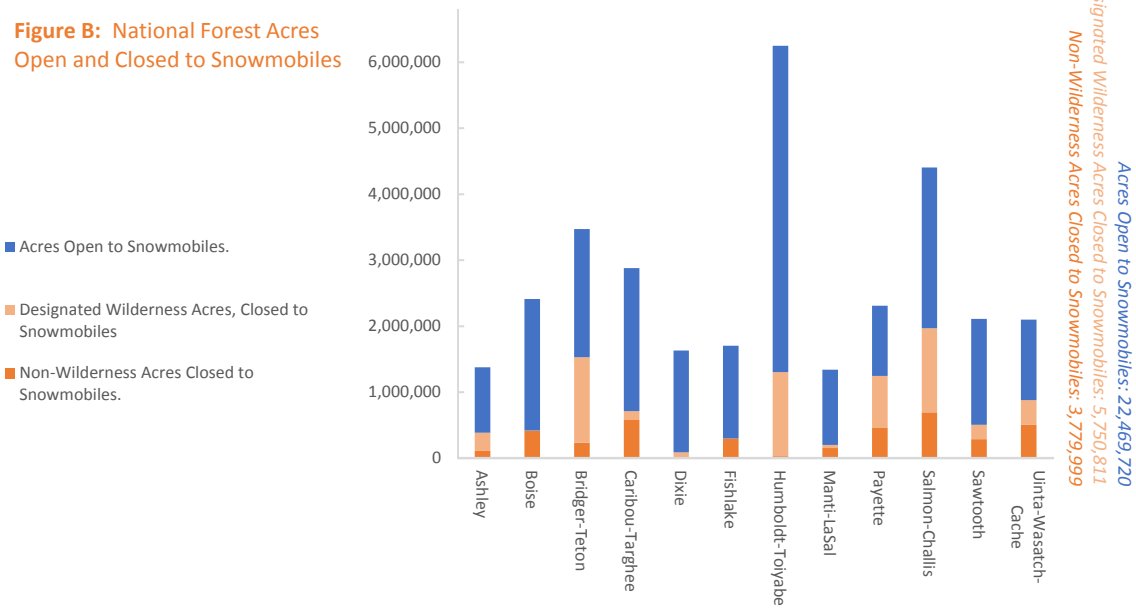
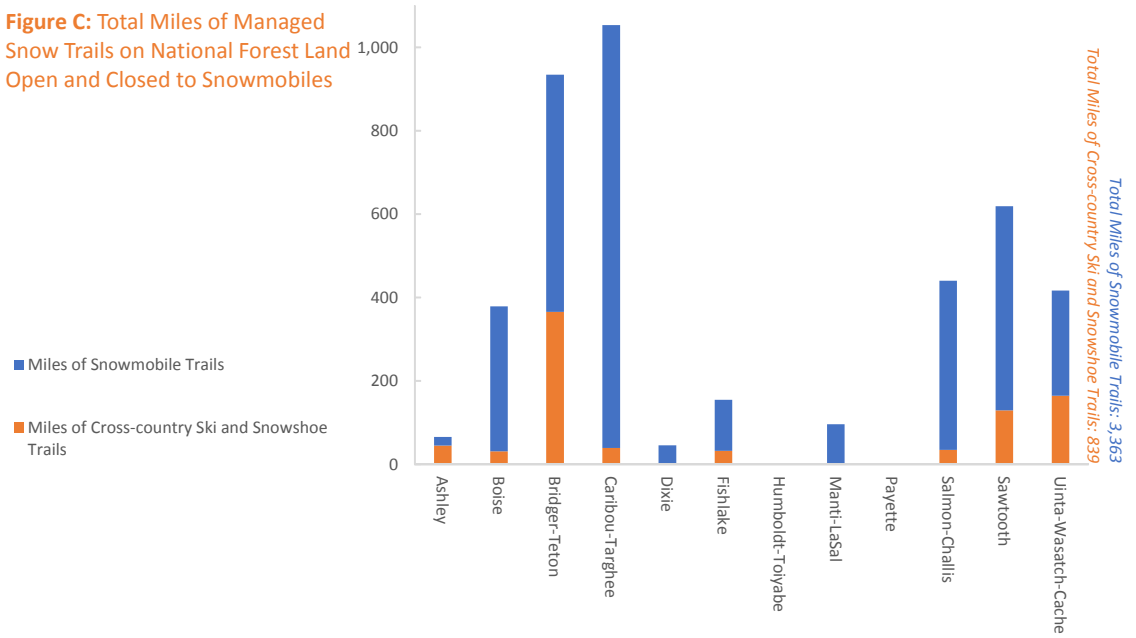


Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 5 forests show there are an estimated:

• 1,170,761 cross-country ski and snowshoe visits annually
• 488,783 snowmobile visits annually

See Figure A.

Region 5 National Forests contain:

• 14,571,103 acres of land
• 10,519,174 acres of land open to snowmobiles
• 525,440 acres of non-wilderness land closed to snowmobiles
• 3,216,652 acres of designated Wilderness land, also closed to snowmobiles

See Figure B

Region 5 National Forests contain:

• 334 miles of ski trails
• 1,391 miles of snowmobile trails

See Figure C.

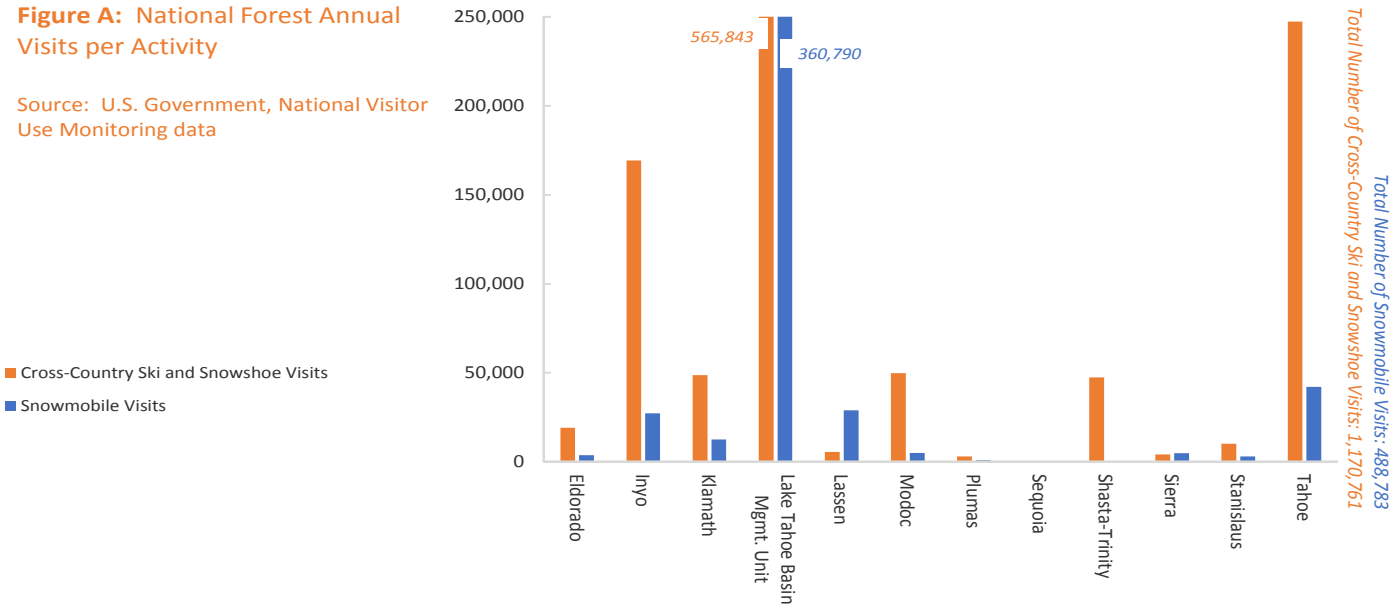
Forests in the Pacific Southwest Region receive approximately 1.2 million cross-country ski and snowshoe visits annually, 2.4 times the number of snowmobile visits. In contrast, there is almost three times the amount of land open to snowmobiles as there is designated for non-motorized use. On three forests – the Klamath, Modoc, and Shasta-Trinity – the only lands that are off-limits to snowmobiles are those within designated Wilderness.

The Klamath National Forest receives approximately 4 times more cross-country ski and snowshoe visits than snowmobile visits and the Modoc receives 10 times more cross-country ski and snowshoe visits. The Shasta-Trinity National Forest did not record any snowmobile visits during the most recent NVUM survey period but did record approximately 47,000 cross-country ski or snowshoe visits. These three forests coordinate snowmobile management through the TriForest Snowmobile Trail System but there is no such program for non-motorized winter recreationists. The TriForest Snowmobile Trails are open to skiers and snowshoers as well but, with the exception of 14 miles of ski trails on the Klamath, there are not any winter trails on these forests where non-motorized users can distance themselves from OSVs.

The Inyo National Forest receives approximately five times more cross-country ski and snowshoe visits than snowmobile visits. While the number of acres open to OSVs versus designated non-motorized are approximately equal, there are over six times more winter trails managed for motorized recreation. In 2005 the Mammoth Lakes Region of the Inyo surveyed visitors to better understand what is important to winter recreationists in the Mammoth area. The survey found that the most common activity pursued by winter recreationists was cross-country or backcountry skiing. Snowmobiling was the third most common activity. Of those surveyed, cross-country skiers were the most

Figure A: National Forest Annual Visits per Activity

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



dissatisfied, with over 20% reporting their experience was below their expectations.[58] In comparison, snowmobilers were the second most satisfied, with over 90% of participants stating that their expectations were met or exceeded.[59]

OSV activity on the Sierra National Forest is guided by the 1991 Land and Resource Management Plan and the 1977 Sierra OHV Plan. Under these documents, approximately 58% of the Sierra National Forest is open to snowmobiles. However, the Forest Service estimates that only 5% of the Sierra National Forest is actually available for OSV recreation in a given winter because there is generally no snow below 7,000 feet.

Five of the forests in Region 5 have taken the lead in implementing the OSV Rule. The Lassen, Tahoe, Eldorado, Stanislaus, and Plumas National Forests began winter travel management planning in early 2015. Each of these forests will go through a public process to identify routes and areas for OSV use. Once these routes and areas are identified and published on a map OSV activity outside of these designated locations will be prohibited. Snowmobilers, skiers, and others interested in how these forests are managed in winter have written comments, attended meetings, and otherwise been involved in the creation of these travel plans which are expected to be completed in 2017.

Figure B: National Forest Acres Open and Closed to Snowmobiles

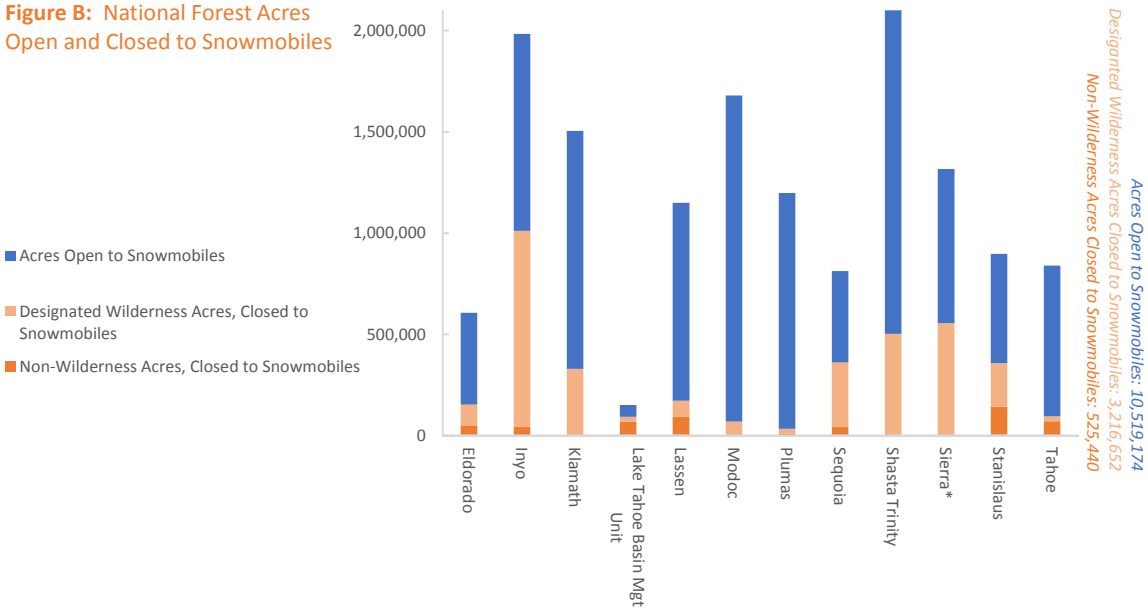
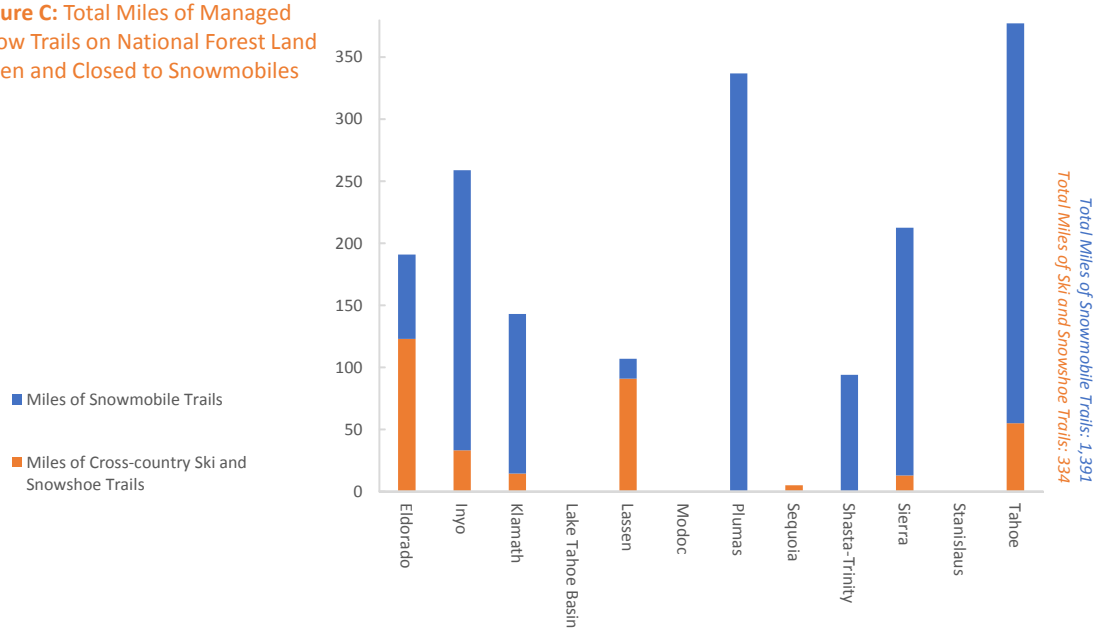


Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 6 forests show there are an estimated:

• 830,639 cross-country ski and snowshoe visits annually
• 243,286 snowmobile visits annually

See Figure A.

Region 6 National Forests contain:

• 23,764,614 acres of land
• 14,354,742 acres of land open to snowmobiles
• 4,531,285 acres of non-wilderness land closed to snowmobiles
• 4,909,037 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Please note that acreage figures for Region 6 are approximate. Several forests in this Region were unable to provide concrete numbers to help answer the question of how many acres are open or closed to OSVs. As a result, this report relies on Forest Plan management areas and Recreation Opportunity Spectrum designations to arrive at a general idea of how many acres on a particular forest are open or closed to OSVs.

Region 6 National Forests contain:

• 1,223 miles of ski trails
• 5,157 miles of snowmobile trails

See Figure C.

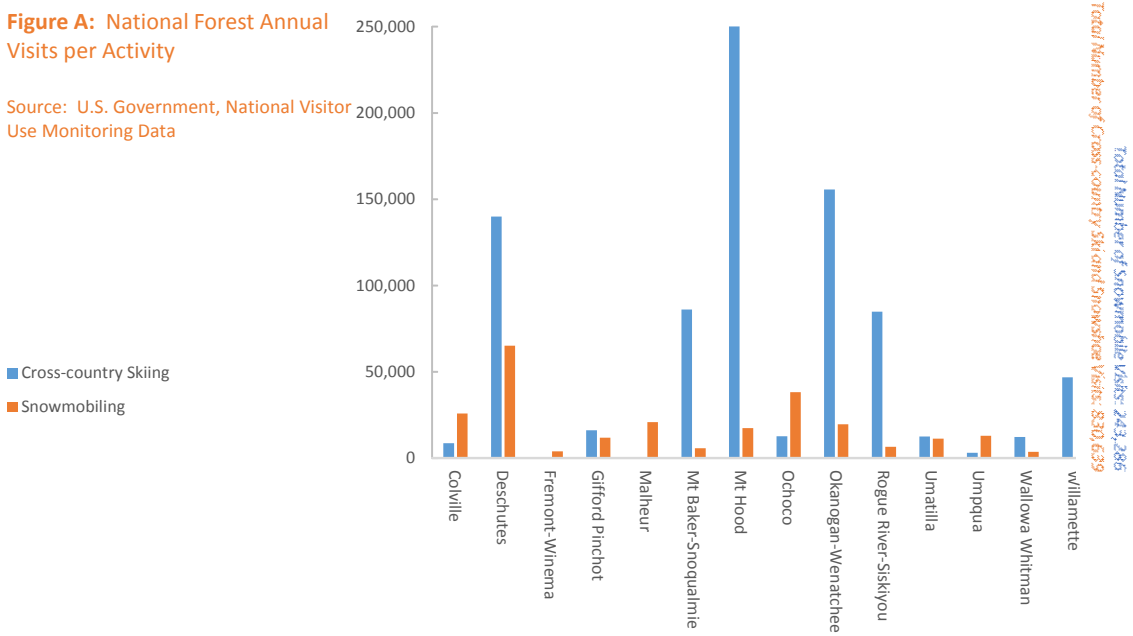
National Forests across the Pacific Northwest Region manage OSVs through motor vehicle designations made during forest planning and special orders that protect sensitive watersheds, wildlife habitat, or, occasionally, to reduce conflict between user groups. Overall, 60% of Region 6 is open to cross-country snowmobile travel and 76% of snow trail miles in Region 6 are open to motorized recreation.

On the Colville National Forest, where the 1988 Forest Plan is the only document dictating OSV management, 66% of the forest is open to cross-country snowmobile travel. On this forest snowmobile visits outnumber cross-country ski or snowshoe visits 3:1.

There are approximately twice as many cross-country ski and snowshoe visits annually to the Deschutes National Forest as there are snowmobile visits. Despite this, 74% of the forest is open to cross-country snowmobile travel and 80% of the trails are managed for motorized or shared use. In the early 2000's, the Deschutes National Forest underwent a winter recreation suitability analysis to assess how best to provide quality winter

Figure A: National Forest Annual Visits per Activity

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

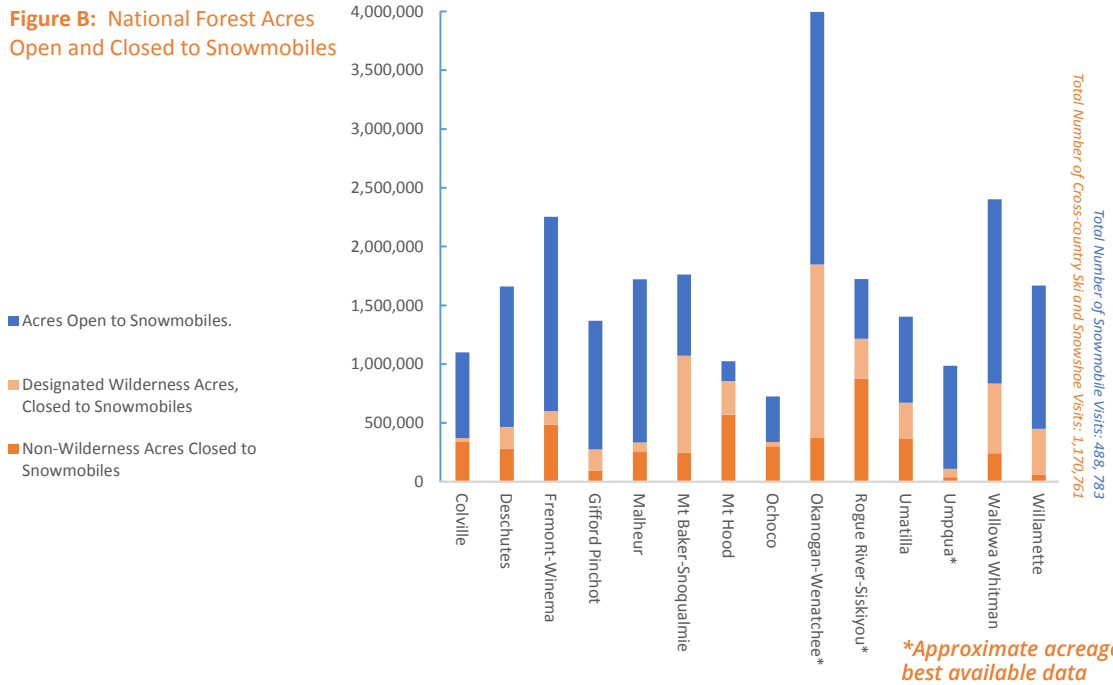


recreation opportunities and protect natural resources. This analysis pointed towards a need for backcountry zoning, increased educational efforts, and improvements to trail and parking facilities, among other recommendations. However, little has been done to date to implement the recommendations from this report.[60]

The Mount Hood National Forest is a major destination for winter recreationists and 94% of the 264,000 cross-country ski, snowshoe, and snowmobile visits to this forest are by human-powered recreationists. However, the forest does not have an official management plan for over-snow vehicle travel or winter recreation. The 1999 Travel and Access Management Guide is the closest thing to a management plan for motorized use on this forest. However, this document was intended for analysis purposes only and provides goals, objectives, strategies, processes, guidelines and general direction to manage forest routes. It is not a decision document and offers no site-specific recommendations.

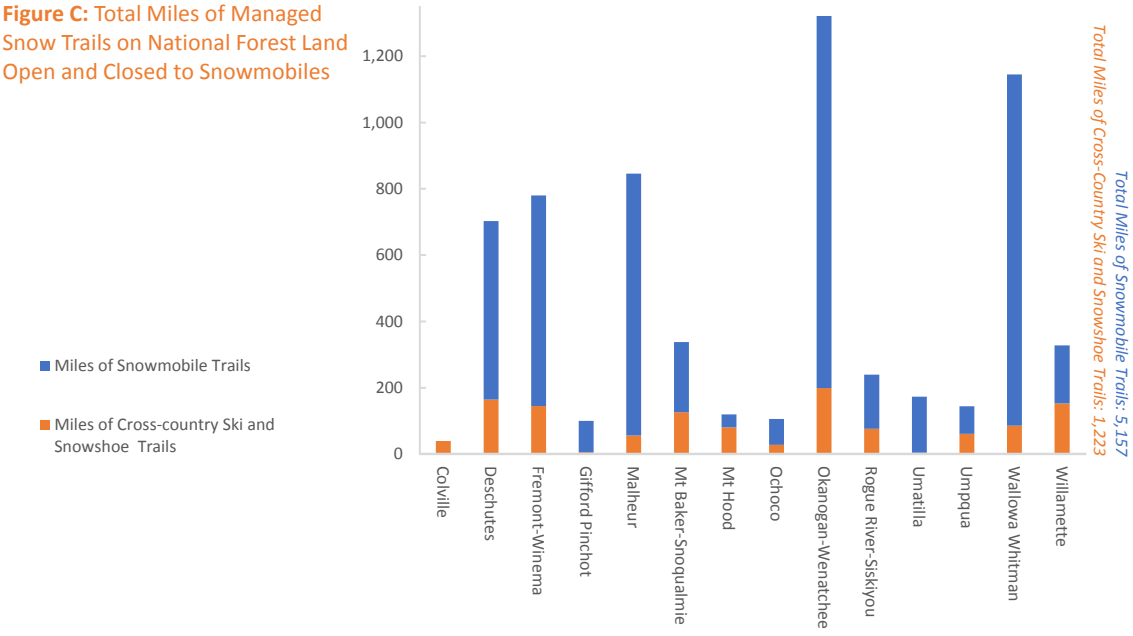
These three forests are examples of how OSVs are managed across Region 6. Of the Regions analyzed in this report Region 6 proved to be the most difficult insofar as calculating acres open and closed to snowmobiles. This was because, Region-wide, there are no recent management plans for winter motorized recreation or decision documents outlining where snowmobiles are and are not allowed to travel. Given that a significant percentage of Oregonians and Washingtonians participate in winter recreation[61] it is time for the National Forests in the Pacific Northwest to undergo comprehensive winter travel planning.

Figure B: National Forest Acres Open and Closed to Snowmobiles



**Approximate acreage calculated using best available data*

Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 9 forests show there are an estimated:

• 934,964 cross-country ski and snowshoe visits annually
• 969,098 snowmobile visits annually

See Figure A.

Region 9 National Forests contain:

• 9,904,649 of land
• 4,116,444 acres of land open to snowmobiles
• 4,170,030 acres of non-wilderness land closed to snowmobiles
• 1,615,577 acres of designated Wilderness land, also closed to snowmobiles

See Figure B.

Region 9 National Forests contain:

• 1,342 miles of ski trails
• 4,087 miles of snowmobile trails

See Figure C.

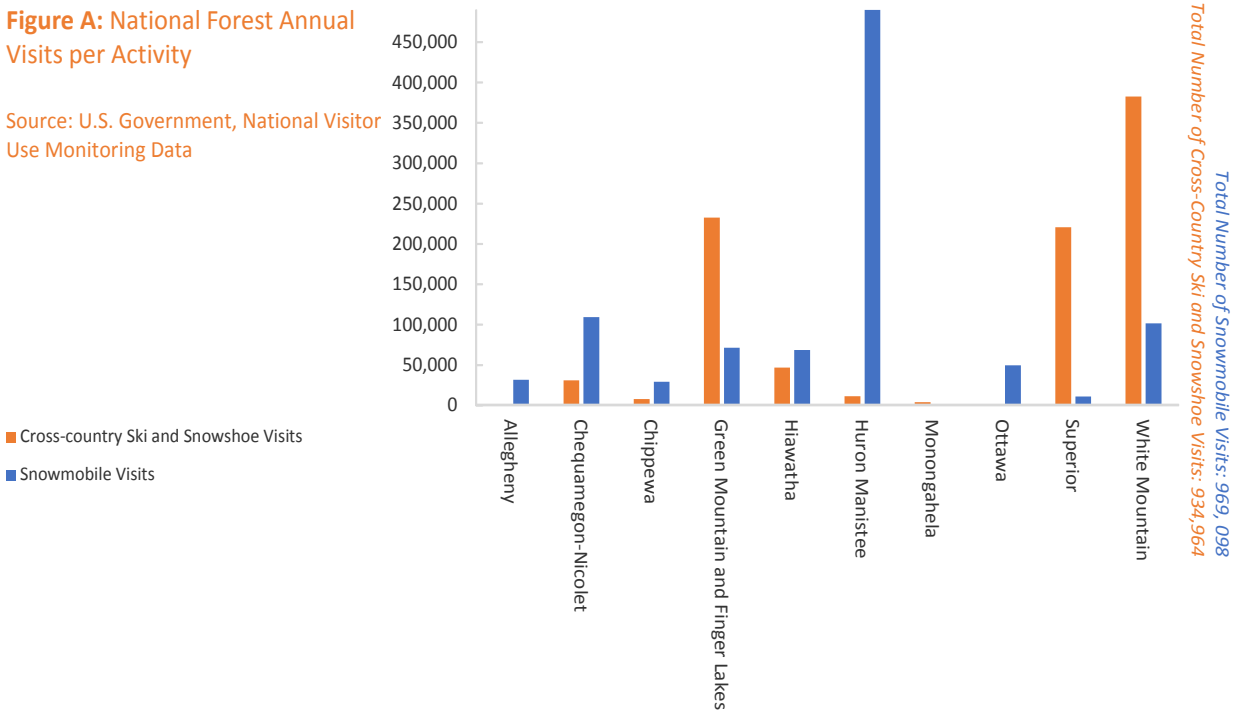
There are slightly more snowmobile visits to Region 9 overall than cross-country ski or snowshoe visits, making it the only Region in the country where NVUM surveys show more snowmobile visits to National Forests than cross-country ski or snowshoe visits. However, ski and snowshoe visits are more common on the Green Mountain and Finger Lakes, Monongahela, Superior, and White Mountain National Forests.

The Eastern Region is unique because most of the National Forests in this Region restrict snowmobiles to designated routes. Therefore, while at first glance it may appear that snowmobile travel is extremely limited in Region 9, it is important to consider how many miles of trails and roads are available for OSV use. 80%, or 4,087 miles, of the managed snow trails across all forests in the Eastern Region are open to snowmobiles.

Snowmobiles are restricted to designated routes on the Alleghany, Chequamegon-Nicolet, Chippewa, Green Mountain and Finger Lakes, Huron Manistee, Monongahela, Superior, and White Mountain National Forests. There are over 4,000 miles of designated snowmobile trails on Forest Service lands in the Eastern Region. In most cases National Forest snowmobile trails are connected to trail systems on state and private lands as well, further increasing opportunities for snowmobiling. For

Figure A: National Forest Annual Visits per Activity

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



example, there are 62,000 miles of interconnected snowmobile trails stretching across the state of Michigan.[62] Well over half of the winter trail miles on every forest in Region 9 are open to or designated for snowmobile travel.

Cross-country snowmobile use is generally permitted on the Hiawatha and Ottawa National Forests. 94% of the Hiawatha is open to cross-country snowmobiling and 85% of winter trail miles are motorized. 40% of winter recreation visits (cross-country skiing, snowshoeing, or snowmobiling) to the Hiawatha National Forest are cross-country skiers or snowshoers yet there are very few areas on this forest where skiers and snowshoers can be guaranteed a non-motorized experience.

95% of winter recreation visits to the Superior National Forest are cross-country skiers or snowshoers yet there are 35 times more non-wilderness acres open to snowmobiles than there are designated as non-motorized on the Superior. The White Mountain National Forest sees almost 4 times as many ski and snowshoe visits as it does snowmobile visits yet 79% of the winter trail miles on this forest are motorized.

Figure B: National Forest Acres Open and Closed to Snowmobiles

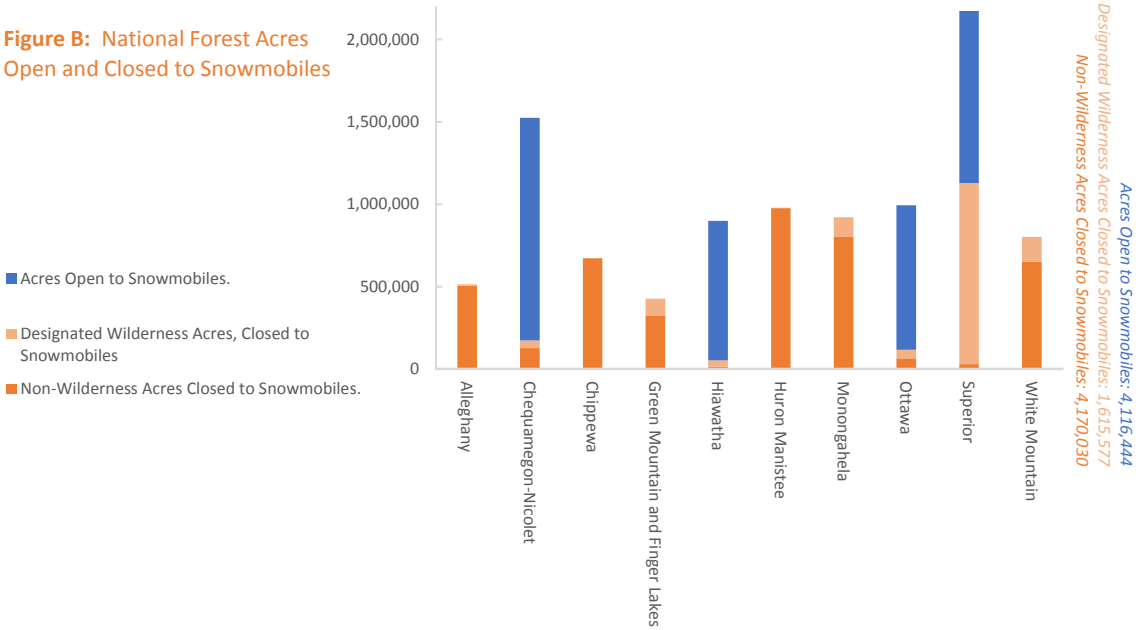
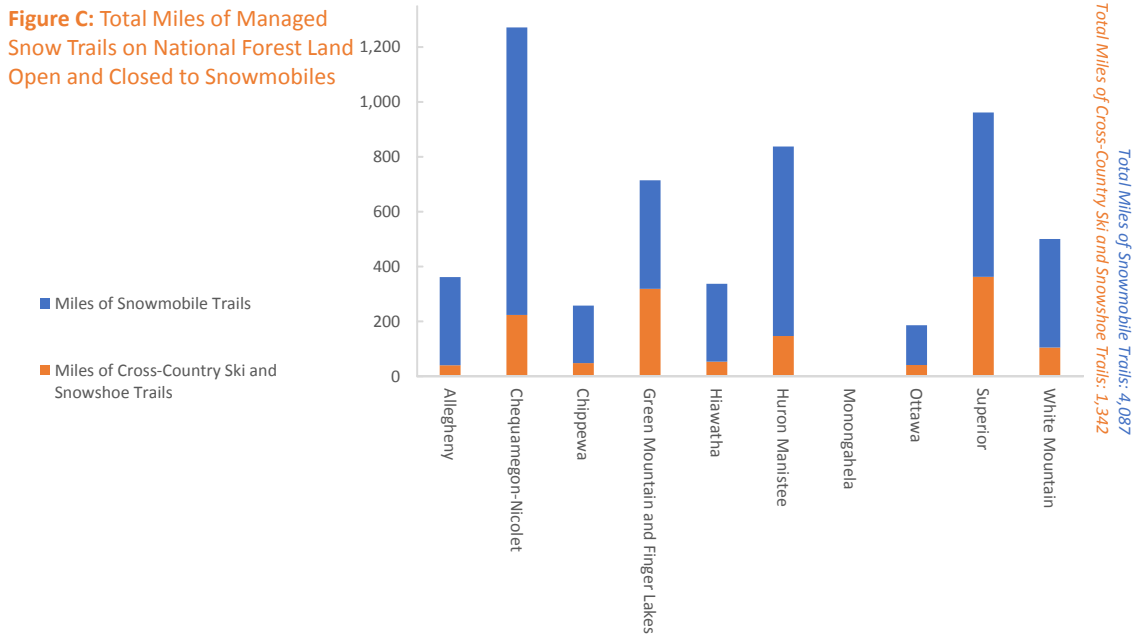


Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



The NVUM surveys for Region 10 forests show there are an estimated:

• 33,261 cross-country ski and snowshoe visits annually
• 1,960 snowmobile visits annually

See Figure A.

Region 10 National Forests contain:

• 40,236,879 acres of land
• 8,574,599 acres of land open to recreational snowmobile use
• 6,954,788 acres of non-wilderness land closed to recreational snowmobile use
• 6,924,421 acres of designated Wilderness land, also closed to recreational snowmobile use

See Figure B.

Region 10 National Forests contain:

• 91 miles of ski trails
• 98 miles of snowmobile trails

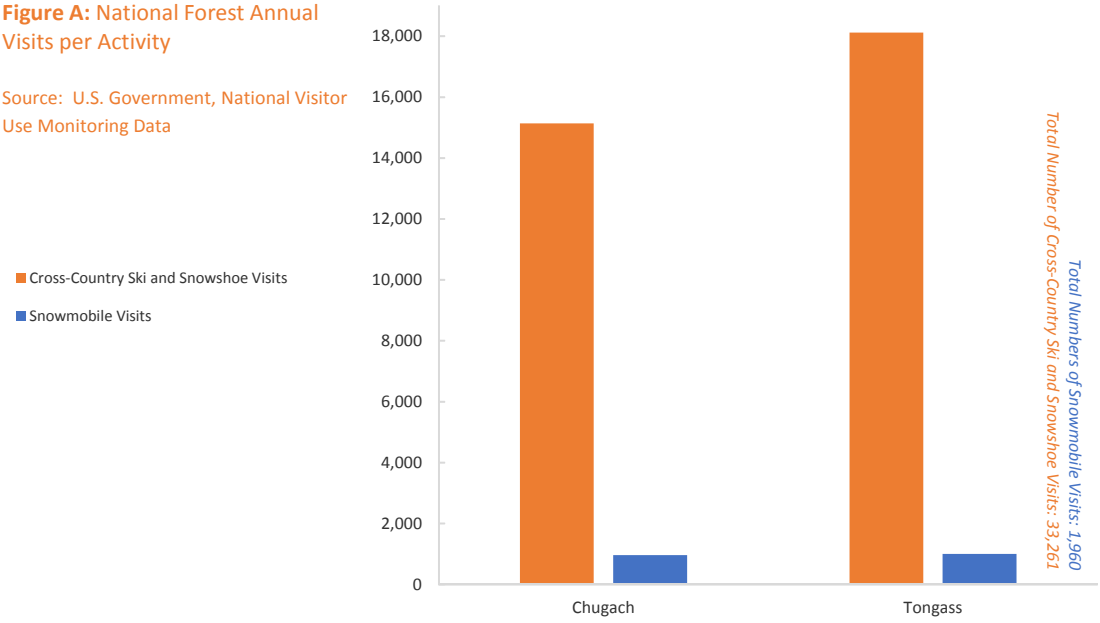
See Figure C.

Section 811 of the Alaska National Interest Lands Conservation Act (ANICLA) allows rural residents engaged in subsistence uses to use snowmobiles to access subsistence resources on public lands regardless of other laws. Likewise, section 1110 of ANICLA allows for the use of snowmobiles on conservation system units, National Recreation Areas, National Conservation Areas, and Wilderness Study Areas for traditional activities (where such activities are permitted) and for travel to and from villages and homesites. Section 1110 allows for snowmobile use across 5.8 million acres of conservation system units on the Tongass National Forest.

Notwithstanding the exceptions permitted because of ANICLA, this report focuses on where recreational snowmobile activity is and is not allowed in Region 10.

Figure A: National Forest Annual Visits per Activity

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



The Chugach National Forest manages OSVs through its Forest Plan, amended to include the Kenai Winter Access Plan. The Kenai Winter Access Plan zones the Seward Ranger District into non-motorized and motorized areas. Because there are some areas on the Kenai that are highly valued by both skiers and snowmobilers 18% of the Kenai is managed under a Season A/ Season B scenario wherein certain areas are motorized one year and non-motorized the following. This type of zoning is not new to the Chugach National Forest. For many years the Forest Service has managed Turnagain Pass to reduce conflicts between skiers and snowmobilers. The pass is divided by the Seward Highway and lands south of the highway are designated for non-motorized use.[63] Overall, 72% of the Chugach is non-motorized in the winter.

On theTongass National Forest 23% of land is off-limits to recreational snowmobile use although much more of this forest is functionally off-limits to snowmobiles due to terrain, snowpack, and access. In areas of the forest that are near towns the Tongass has delineated OSV use areas. These areas are depicted on the forest Motor Vehicle Use Maps. The Forest Plan and additional forest orders are the guiding documents behind these designations.

Much of Alaska is too rugged or remote for snowmobile access, however, only 34% of the National Forest lands in Region 10 are officially closed to recreational snowmobile use. This includes designated Wilderness areas. Cross-country ski and snowshoe visits outnumber recreational snowmobile visits to the Chugach by a factor of almost 16 to 1. Likewise, cross-country ski and snowshoe visits to the Tongass outnumber recreational snowmobile visits 18 to 1.

Figure B: National Forest Acres Open and Closed to Snowmobiles

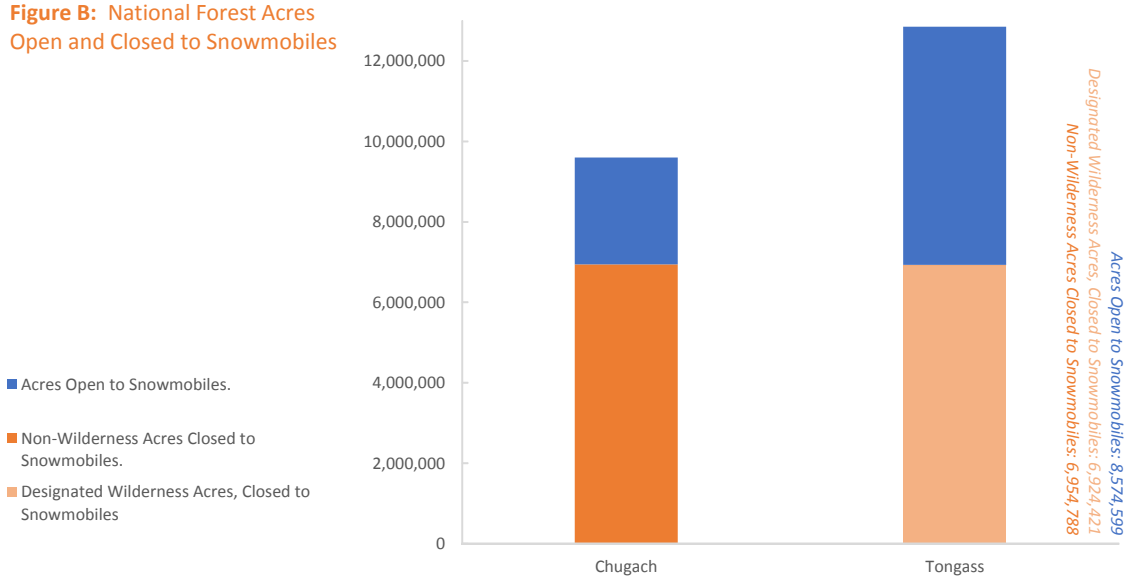
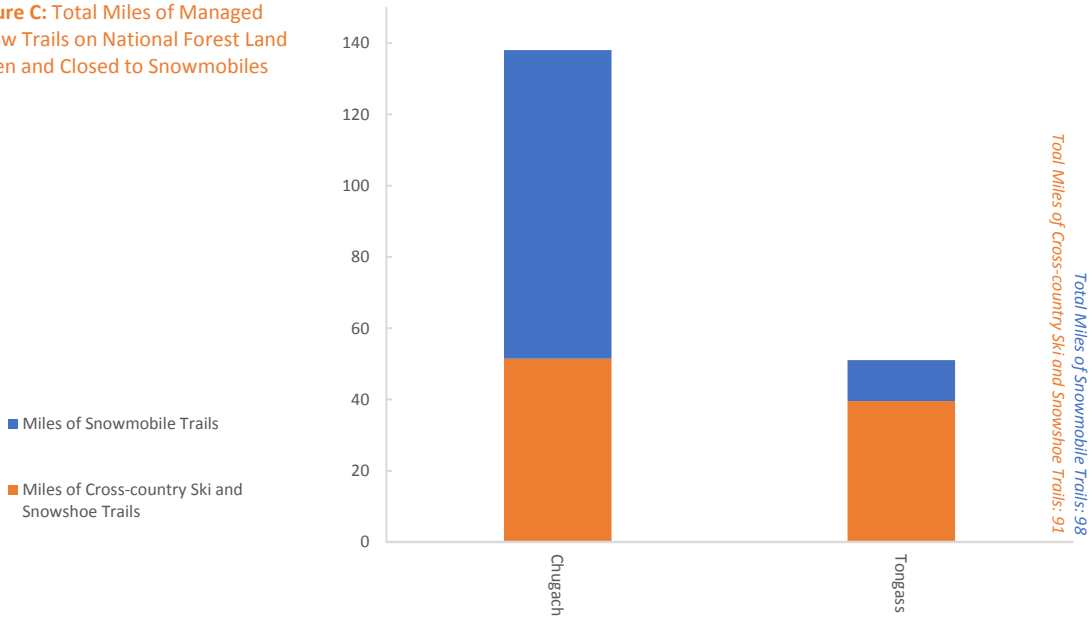


Figure C: Total Miles of Managed Snow Trails on National Forest Land Open and Closed to Snowmobiles



Winter Wildlands Alliance
PO Box 631 • Bozeman, MT 59771 • 208.336.4203
www.winterwildlands.org

(*Submitted via email*)
April 24, 2014

Region 1 FOIA Coordinator
*
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 for all National Forests in Region 1, except the Dakota Prairie Grasslands:

1) Any and all records that summarize the length of all cross-country ski and snowshoe trails on the National Forests specified above
2) Any and all records that summarize the length of all snowmobile trails, including roads, on the National Forests specified above
3) Any and all records that summarize the length of all trails that are designated shared use for motorized and non-motorized winter recreational activities on the National Forests specified above
4) Any and all records that detail the total acreage in the National Forests specified above that is open to or available for snowmobile operation
5) Any and all records that detail the total acreage in the National Forests specified above that is closed to snowmobile operation
6) Any and all Forest Closure Orders, Travel Management Plan documentation, or other decisions and supporting documents governing the use of over-snow vehicles on the National Forests specified above
7) Any and all surveys of public use, attitudes, preferences or opinions that concern, in whole or in part, snowmobiling, cross-country skiing, backcountry skiing or snowshoeing, including summaries and drafts for the National Forests specified above. You do not need to include documentation related to National Visitor Use Monitoring surveys.
8) Any reports detailing the economic impact of winter recreation on National Forest system lands published since 2000 for the National Forests specified above
9) Electronic copies of any and all GIS files related to winter recreation trails and areas, including sno-parks, designated non-motorized areas outside Wilderness and the boundaries of any Special Use Permits if applicable (ski areas, cat ski, etc.) for the National Forests specified above

We respectfully request electronic copies of this information to the extent possible.

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 34 grassroots groups in 10 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 12 states, including Alaska, California, Colorado, Idaho, Minnesota, Montana, Nevada, Oregon, Utah, Vermont, Washington 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) 629-1986 or email me at heisen@winterwildlands.org if you have any questions. Thank you for your immediate attention to this matter.

Sincerely,

*

Recreation Planning Coordinator

Winter Wildlands Alliance
PO Box 631 • Bozeman, MT 59771 • 208.336.4203
www.winterwildlands.org

(*Submitted via email*)
December 1, 2014

National Program Manager, Trails & Congressionally Designated Areas
USDA Forest Service

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 for all National Forests in Region 1, except the Dakota Prairie Grasslands; all National Forests in Region 2, except the Nebraska National Forest; the Carson, Cibola, Coconino, Coronado, Kaibab, Lincoln, and Santa Fe National Forests in Region 3; all National Forests in Region 4; the Eldorado, Inyo, Klamath, Lassen, Modoc, Plumas, Sequoia, Shasta-Trinity, Sierra, Stanislaus, and Tahoe National Forests as well as the Lake Tahoe Basin Management Area in Region 5; all National Forests in Region 6; the Alleghany, Hiawatha, Huron-Manistee, Ottawa, Chippewa, Superior, White Mountain, Green Mountain/Finger Lakes, Chequamegon-Nicolet, and Monongahela National Forests in Region 9; and all National Forests in Region 10:

1) Total existing NFST miles with Managed Use of cross-country ski and total existing NFST miles with Managed Use of snowshoe (as recorded in the current, FY14, INFRA database).

2) Total existing NFST miles with Managed Use of snowmobile (as recorded in the current, FY14, INFRA database).

In addition, we request the following items for the Alleghany National Forest:

1) Any and all records that detail the total acreage in the National Forests specified above that is open to or available for snowmobile operation. Specifically, we are requesting total NFS designated areas, in acres, open to motorized over-snow vehicle use such as cross country travel, play areas, etc. Do not include linear features such as trails, trail mileage or associated acres for National Forest System trails.

2) Any and all records that detail the total acreage in the National Forests specified above that is closed to snowmobile operation. Specifically, we are requesting total NFS designated areas, in acres, specifically closed to motorized over-snow vehicle use such as cross country travel, play areas, etc. Do not include linear features such as trails, trail mileage or associated acres for National Forest System trails. Include wilderness acres that are closed to over-snow vehicle use.

3) Any and all Forest Closure Orders, Travel Management Plan documentation, or other decisions and supporting documents governing the use of over-snow vehicles on the National Forests specified above. Specifically, we are requesting all Forest Closure Orders, Travel Management Plans or other means of closure and the supporting NEPA documents and/or Forest Plans for the closure. Specify the district, forest, and region. If documentation is within a Forest Plan, state the information is within a Forest Plan and supply the forest name, plan date, and a direct link. If supporting NEPA documents are available via the internet, provide the direct link to the document.

4) Any and all surveys of public use, attitudes, preferences or opinions that concern, in whole or in part, snowmobiling, cross-country skiing, backcountry skiing or snowshoeing, including summaries and drafts for the National Forests specified above. You do not need to include documentation related to National Visitor Use Monitoring surveys.

5) Any reports detailing the economic impact of winter recreation on National Forest system lands published since 2000 for the National Forests specified above

6) Electronic copies of any and all GIS files related to winter recreation trails and areas, including sno-parks, designated non-motorized areas outside Wilderness and the boundaries of any Special Use Permits if applicable (ski areas, cat ski, etc.) for the National Forests specified above

Finally, we request the following in regards to forests in Region 6:

1) Okanogan-Wenatchee

We request any and all GIS files that depict motorized vehicle restrictions and were used to create the 2005 Methow Valley and Tonasket Ranger District travel plan maps.

2) Willamette

We request electronic copies of any and all GIS files related to winter recreation trails and areas, including sno-parks, designated non-motorized areas outside Wilderness and the boundaries of any Special Use Permits if applicable (ski areas, cat ski, etc.).

We request the Motorized Access and Travel Management Plans prepared for each Ranger District as per the 1990 Forest Plan unless these documents have been superseded by other Forest Orders or other management guidelines pertaining to OSVs.

We request any and all Travel Management Area shapefiles that reflect Forest Plan Management Areas (or similar) for the Willamette National Forest.

We respectfully request electronic copies of this information to the extent possible.

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.

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Currently, WWA is working with grassroots groups in 11 states, including Alaska, California, Colorado, Idaho, Minnesota, Montana, Nevada, New Mexico Oregon, Utah, Vermont, Washington 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) 629-1986 or email me at heisen@winterwildlands.org if you have any questions. Thank you for your immediate attention to this matter.

Sincerely,

*

Recreation Planning Coordinator

APPENDIX C. TABLE OF ALL FORESTS

Region	State	Forest	Annual Cross-country Ski and Snowshoe visits	Annual Snowmobile Visits
Northern (1)	Idaho	Idaho Panhandle	8,133	70,562
	Idaho	Nez Perce-Clearwater	14,802	17,045
	Montana	Beaverhead-Deerlodge	70,863	9,860
	Montana	Bitterroot	2,672	863
	Montana	Custer-Gallatin	282,961	252,496
	Montana	Flathead	15,524	26,275
	Montana	Helena	49,105	30,033
	Montana	Kootenai	32,882	1,079
	Montana	Lewis and Clark	7,079	1,479
	Montana	Lolo	194,310	96,832
(R1) Total			**678,332**	**506,524**
Rocky Mountain (2)	Colorado	Arapaho-Roosevelt	593,937	495,386
	Colorado	Grand Mesa, Uncompahgre, & Gunnison	295,730	236,025
	Colorado	Pike-San Isabel	45,445	646
	Colorado	Rio Grande	40,683	23,662
	Colorado	San Juan	10,778	2,624
	Colorado	White River	735,699	82,223
	Colorado & Wyoming	Medicine Bow-Routt	373,044	113,158
	South Dakota	Black Hills	56,101	86,712
	Wyoming	Bighorn	27,925	38,144
	Wyoming	Shoshone	19,260	92,088
(R2) Total			**2,198,604**	**1,170,669**
Southwestern (3)	Arizona	Cibola	11,367	0
	Arizona	Coconino	35,039	950
	Arizona	Coronado	0	0
	Arizona	Kaibab	38	791
	New Mexico	Carson	73,782	36,377
	New Mexico	Lincoln	1,257	718
	New Mexico	Santa Fe	130,229	42
(R3) Total			**251,712**	**38,878**
Intermountain (4)	Idaho	Boise	237,220	41,747
	Idaho	Caribou-Targhee	134,172	181,530
	Idaho	Payette	51,954	79,016
	Idaho	Salmon-Challis	13,918	0
	Idaho	Sawtooth	85,387	7,735
	Nevada	Humboldt-Toiyabe	12,034	467
	Utah	Ashley	177	317
	Utah	Dixie	799	1,328
	Utah	Fishlake	0	2,638
	Utah	Manti-LaSal	4,104	3,418
	Utah	Uinta-Wasatch-Cache	152,629	139,980
	Wyoming	Bridger-Teton	201,581	136,311
(R4) Total			**893,975**	**594,487**

Total Acres	Acres Open to Snowmobiles	Acres of Non-Wilderness, Closed to Snowmobiles	Acres of Designated Wilderness, Closed to Snowmobiles	Miles of Cross-Country Ski and Snowshoe Trails	Miles of Snowmobile Trails
2,498,020	2,047,586	440,568	9,866	47	1,392
3,935,460	2,729,835	66,382	1,139,243	79	761
3,392,010	2,023,011	1,115,517	221,518	102	544
1,594,580	543,840	300,397	750,343	0	10
3,039,170	1,308,346	583,476	1,051,301	111	243
2,411,910	717,901	627,739	1,075,558	41	0
980,757	338,130	483,357	112,023	23	338
2,243,330	1,961,260	188,304	93,766	46	259
1,869,610	570,200	906,696	386,197	0	0
2,183,450	1,540,803	494,585	148,062	25	554
24,148,297	**13,780,911**	**5,207,020**	**4,987,877**	**475**	**4,100**
1,596,970	1,251,297	19,252	326,421	114	144
2,965,960	2,349,684	60,934	553,680	706	744
163,039	1,631,237	163,039	445,339	82	59
1,837,770	1,429,477	14,784	392,407	18	22
1,864,290	798,599	640,170	424,281	47	173
2,287,150	682,429	853,315	750,947	101	296
2,892,400	1,627,216	380,959	331,247	216	412
1,250,960	672,399	560,889	13,548	24	0
1,105,090	812,113	100,935	191,911	40	336
2,439,340	544,558	528,291	1,365,643	25	200
18,402,969	**11,799,009**	**3,322,569**	**4,795,424**	**1,374**	**2,387**
1,879,340	1,719,621	21,586	138,133	10	7
1,852,300	1,649,664	45,982	156,654	16	0
1,718,950	0	1,380,466	338,484	0	0
1,561,270	1,446,379	0	114,891	8	0
1,490,110	1,344,953	15,753	129,404	20	0
1,095,470	991,153	20,912	83,405	3	0
1,545,990	1,259,619	0	286,371	11	0
11,143,430	**8,411,389**	**1,484,699**	**1,247,342**	**67**	**7**
2,203,710	1,996,133	416,719	249	31	348
2,898,500	2,167,359	579,096	134,566	39	1,015
2,309,420	1,063,092	465,122	781,206	0	0
4,353,900	2,437,931	693,941	1,273,428	34	405
2,110,410	1,604,899	287,810	217,701	129	490
6,251,680	4,948,373	30,000	1,273,307	0	0
1,378,350	994,196	110,000	274,154	45	21
1,631,930	1,544,929	1,378	85,623	0	45
1,704,880	1,407,178	297,702	0	32	122
1,340,370	1,139,568	154,445	46,357	0	96
2,155,920	1,223,142	511,040	367,069	164	252
3,420,550	1,942,920	232,747	1,297,151	365	569
31,759,620	**22,469,720**	**3,779,999**	**5,750,811**	**839**	**3,363**

APPENDIX C. TABLE OF ALL FORESTS, CONT.

Region	State	Forest	Annual Cross-country Ski and Snowshoe visits	Annual Snowmobile Visits
Pacific Southwest (5)	California	Eldorado	19,069	3,641
	California	Inyo	169,238	27,268
	California	Lake Tahoe Basin	565,843	360,790
	California	Lassen	5,506	28,938
	California	Modoc	49,830	4,994
	California	Plumas	3,026	905
	California	Sequoia	533	0
	California	Shasta Trinity	47,450	0
	California	Sierra *	4,141	4,750
	California	Stanislaus	10,139	2,928
	California	Tahoe	247,317	42,078
	Oregon	Klamath	48,670	12,491
(R5) Total			**1,170,761**	**488,783**
Pacific Northwest (6)	Oregon	Deschutes	139,953	65,180
	Oregon	Fremont-Winema	0	3,909
	Oregon	Gifford Pinchot	16,111	11,827
	Oregon	Malheur	0	20,906
	Oregon	Mt Hood	251,703	17,419
	Oregon	Ochoco	12,747	38,241
	Oregon	Rogue River-Siskiyou *	84,926	6,529
	Oregon	Umatilla	12,568	11,274
	Oregon	Umpqua *	3,039	12,997
	Oregon	Wallowa Whitman	12,298	3,726
	Oregon	Willamette	46,896	0
	Washington	Colville	8,619	25,870
	Washington	Mt Baker-Snoqualmie	86,100	5,768
	Washington	Okanogan-Wenatchee *	155,679	19,642
(R6) Total			**830,639**	**243,286**
Eastern (9)	Michigan	Hiawatha	46,393	68,171
	Michigan	Huron Manistee	10,855	499,329
	Michigan	Ottawa	1,041	49,355
	Michigan	Superior	220,542	10,524
	Minnesota	Chippewa	7,364	28,713
	New Hampshire	White Mountain	382,424	101,046
	Pennsylvania	Alleghany	0	31,123
	Vermont & New York	Green Mountain and Finger Lakes	232,194	71,019
	West Virginia	Monongahela	3,458	1,037
	Wisconsin	Chequamegon-Nicolet	30,693	108,779
(R9) Total			934,964	969,098
Alaska (10)	Alaska	Chugach	15,140	959
	Alaska	Tongass	18,121	1,000
(R10) Total			**33,261**	**1,960**
Overall			**6,878,106**	**4,002,135**

Total Acres	Acres Open to Snowmobiles	Acres of Non-Wilderness, Closed to Snowmobiles	Acres of Designated Wilderness, Closed to Snowmobiles	Miles of Cross-Country Ski and Snowshoe Trails	Miles of Snowmobile Trails
604,790	452,140	50,657	103,463	123	68
1,983,940	972,954	43,947	967,039	33	226
151,927	58,882	68,388	24,657	0	0
1,153,220	976,760	93,422	79,838	91	16
1,679,300	1,608,912	0	70,388	0	0
1,203,600	1,163,046	11,078	23,777	0	337
1,114,770	450,228	42,381	319,753	5	0
2,121,020	1,618,440	0	502,580	0	94
1,316,340	760,657	2,000	553,683	13	200
898,352	539,885	142,714	215,753	0	0
839,714	743,646	70,854	25,214	55	322
1,504,130	1,173,623	0	330,507	14	129
14,571,103	**10,519,174**	**525,440**	**3,216,652**	**334**	**1,391**
1,612,180	1,193,514	283,727	182,469	164	538
2,253,700	1,653,864	484,211	115,625	145	635
1,368,300	1,093,568	95,167	179,565	5	95
1,721,410	1,386,770	252,086	82,554	56	790
1,024,360	168,177	570,343	285,840	81	39
725,702	388,078	301,816	35,598	28	78
1,722,780	506,130	877,002	339,648	76	163
1,404,200	732,518	367,510	304,172	4	170
985,352	875,713	37,900	71,739	61	83
2,402,600	1,567,524	241,534	593,542	86	1,059
1,682,850	1,218,583	59,685	390,581	153	175
1,103,190	730,949	337,930	31,441	40	0
1,761,430	690,959	248,553	821,918	126	212
3,996,560	2,148,395	373,820	1,474,345	199	1,122
23,764,614	**14,354,742**	**4,531,285**	**4,909,037**	**1,223**	**5,157**
898,479	845,463	14,368	38,648	54	284
978,880	0	975,609	3,271	147	690
996,538	877,055	64,443	52,442	41	145
2,172,520	1,043,922	29,809	1,098,789	363	599
671,952	0	671,952	0	49	209
802,249	0	652,608	149,641	105	395
513,794	0	504,815	8,979	41	321
425,943	0	325,069	100,874	319	396
1,523,710	1,350,004	126,863	46,843	224	1,047
920,584	0	804,494	116,090	0	0
9,904,649	**4,116,444**	**4,170,030**	**1,615,577**	**1,342**	**4,087**
9,602,314	2,657,278	6,945,036	0	51	87
30,634,565	5,917,321	9,752	6,924,421	40	11
40,236,879	**8,574,599**	**6,954,788**	**6,924,421**	**91**	**98**
176,008,137	**97,025,989**	**29,975,829**	**33,447,141**	**5,746**	**20,590**

**Acreage figures are approximate based on best available data*

1. http://winterwildlands.org/wp-content/uploads/2014/04/Winter-Recreation-on-Western-National-Forests-WWA_2006.pdf
2. Multiple-Use and Sustained Yield Act of 1960, Public Law 86-517, 86th Congress (June 12, 1960), § 4(a)
3. Id.
4. An "Over-Snow Vehicle" is defined by the Forest Service as: "a motor vehicle that is designed for use over snow and that runs on a track and/or a ski or skis, while used over snow."
5. From: "A Brief History of Snowshoeing," at www.atlassnowshoe.com.
6. From: Lund, "A Short History of Alpine Skiing," at www.skinghistory.org/history
7. From: Dawson, "Chronology of North American Ski Mountaineering and Backcountry Skiing," WildSnow.com, at www.wildsnow.com/chronology/timeline_table.html
8. 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
9. From: Ingham, "As the Snow Flies, A History of Snowmobile Development in North America," at www.snowmobilehistory.com/index.html
10. From: International Snowmobile Manufacturers Association (ISMA), at www.snowmobile.org/facts_hist.asp
11. Id.; For photos of early machines see www.snowmobilehistory.com/page6.html.
12. See photo posted by the Snowmobile Canada website at www.snowmobile-canada.com/his3.htm
13. From: users.accesscomm.ca/rread/76spcs.JPG
14. From: The ISMA website at www.snowmobile.org/facts_hist.asp
15. From http://www.snowmobile.com/manufacturers/ski-doo/2015-snowmobiles-of-the-year-best-of-the-west-1866.html and the Ski-Doo website: http://www.ski-doo.com/Files/en-US/Models/2016/Specs/Ski-Doo_Summit_X3_specs.pdf#zoom=100
16. 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, pp. 219-321, 1999, at www.srs.fs.usda.gov/pubs/ja/ja_cordell010.pdf
17. Id.
18. From: 1962 National Outdoor Recreation Survey at www.srs.fs.usda.gov/trends/Nsre/ORRRC/Ch3.pdf
19. Cordell, H.K. 2012. Outdoor Recreation Trends and Futures: A Technical Document Supporting the Forest Service 2010 RPA Assessment. General Technical Report SRS-150. U.S. Department of Agriculture Forest Service, Southern Research Station. Asheville, NC. 167p. http://www.treesearch.fs.fed.us/pubs/40453
20. From 2014 United States Snowmobile Registrations at http://www.snowmobile.org/stats_registrations_us.asp
21. See fn. 13.
22. See fn. 13.
23. From Cordell, H.K. 2012. Outdoor Recreation Trends and Futures: A Technical Document Supporting the Forest Service 2010 RPA Assessment. General Technical Report SRS-150. U.S. Department of Agriculture Forest Service, Southern Research Station. Asheville, NC. 167p. http://www.treesearch.fs.fed.us/pubs/40453.
24. The most recent National Visitor Use Monitoring data give an estimate of 6,878,106 cross-country ski or snowshoe visits annually and 4,002,135 annual snowmobile visits to all of the forests in this report
25. The Outdoor Foundation's 2014 Outdoor Recreation Participation Report.
26. Id.
27. From Cordell, H.K. 2012. Outdoor Recreation Trends and Futures: A Technical Document Supporting the Forest Service 2010 RPA Assessment. General Technical Report SRS-150. U.S. Department of Agriculture Forest Service, Southern Research Station. Asheville, NC. 167p.
28. See fn. 19, at p. 302.
29. Id.
30. Available in Appendix 1 and 2
31. Three forests in Region 6 – the Umpqua, Rogue River-Siskiyou, and Okanogan-Wenatchee failed to provide a full response to our FOIA request. Acreage calculations for these forests are approximate based on the information available.
32. 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
33. Id., at p. 48
34. Exec. Order No. 11644, 37 FR 2877, 1972 WL 19410 (Pres.)
35. For examples, see "Human Powered Snowsports Trends and Economic Impacts" at http://winterwildlands.org/wp-content/uploads/2014/09/Economic-Impact-of-Human-Powered-Snowsports.pdf, "Montana Recreational Snowmobiles Fuel-Use and Spending Patterns 2013" at http://www.snowmobileinfo.org/snowmobile-access-docs/Montana-Recreational-Snowmobiles-fuelUse-and-Spending-Patterns-2013.pdf, and the "2011-2012 Wyoming Comprehensive Snowmobile Recreation Report" at http://www.snowmobileinfo.org/snowmobile-access-docs/Wyoming-Comprehensive-Snowmobile-Recreation-Report_2012.pdf
36. "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 wild life, and 25% feel there are too many." From: Yellowstone SEIS, Chapter 3, Affected Environment, at www.nps.gov/grte/winter use/fseis/vol1/6-chap3.pdf
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.

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.

37. Hastings, A.L., G.G. Fleming, and C.S.Y. Lee. 2006. Modeling Sound Due to Over-Snow Vehicles in Yellowstone and Grand Teton National Parks. Report DOT-VNTSC-NPS-06- 06, Volpe Transportation Center, Cambridge, MA. http://www.nps.gov/yell/parkmgmt/upload/finalsound%20_modelingreport.pdf See also Burson, S. 2008. Natural Soundscape Monitoring in Yellow stone National Park December 2007– March 2008. National Park Service, Yellowstone Center for Resources, Mammoth, WY. 106p. http://www.nps.gov/yell/parkmgmt/upload/soundscape_monitoring-2007-2008.pdf
38. Eriksson, K., D. Tjarner, I. Marqvardsen, and B. Jarvholm. 2003. Exposure to Benzene, Toluene, Xylenes and Total Hydroc arbons among snowmobile drivers in Sweden. Chemosphere 50(10): 1343-7. See also Reimann, S., R. Kallenborn, and N. Schmidbauer. 2009. Severe aromatic hydrocarbon pollution in the arctic town of Longyearbyen (Svalbard) caused by snow mobile emissions. Environmental Science and Technology 43: 4791–4795.
39. See "Minnesota, 2013-2014 Fatal Snowmobile Accidents" at http://files.dnr.state.mn.us/enforcement/incident_reports/snowmobileaccidents14.pdf; "Wisconsin Snowmobile Safety and Enforcement Report", 2014 at http://dnr.wi.gov/files/pdf/pubs/le/LE0203_2014.pdf; http://www.auto-accident-resource.com/snowmobile-accidents.html; The Centers For Disease Con trol and Prevention, 1314 and 1315 JAMA, March 17, 2004—Vol 291, No. 11 (Reprinted); Fleming, "In Maine, speed thrills" Port land Press Herald, January 19, 2013 at http://www.pressherald.com/2013/01/19/in-maine-speed-thrills_2013-01-19/; Gustafs son and Eriksson. 2013. Off-road vehicle fatalities: A comparison of all-terrain vehicle and snowmobile accidents in Sweden. IATSS Research 35: 12-15.
40. Id., Fleming, supra; See also, http://www.snowmobilers.org/snowmobiling-laws-and-rules.aspx
41. See http://snowmobiles.axlegeeks.com/ for a complete list of current model year snowmobile specifications
42. From: National AG Safety Database, Snowmobiles and Youth Safety Packet, at http://nasdonline.org/document/994/2/d000977/snowmobiles-and-youth-safety-packet.html
43. Id. Other data suggest 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
44. See Powers, supra, at fn. 44. See also www.seagrant.umn.edu/tourism/snow.html#6.
45. Winter Wildlands Alliance 2014. "Environmental Impacts from Snowmobile Use" available at http://winterwildlands.org/wp-content/uploads/2014/05/Environmental-Impacts-from-Snowmobile-Use.pdf and "Best Management Practices for Forest Ser vice Travel Planning" available at http://winterwildlands.org/wp-content/uploads/2015/02/BMP-Report.pdf
46. Id
47. The NVUM homepage is at www.fs.fed.us/recreation/programs/nvum/
48. Personal communication with Don English, Visitor Use Monitoring Program Manager, Feb. 13, 2015
49. In April 2015 the Bitterroot National Forest released a draft Record of Decision regarding a new travel plan. Because this plan was not finalized at the time of report publication the numbers from the new plan are not included in this report. However, the new plan outlines a much more equitable balance of land allocation for motorized and non-motorized users similar to other National Forest winter travel plans in Region 1.
50. From Montana Statewide Comprehensive Outdoor Recreation Plan, at Chapter 4, p. 33, at http://stateparks.mt.gov/about-us/scorp.html and Idaho Statewide Comprehensive Outdoor Recreation and Tourism Plan 2013-2017, Regional Participation Rates, p. 6 at http://parksandrecreation.idaho.gov/scortp
51. From Montana Statewide Comprehensive Outdoor Recreation Plan, Public Recreational Use Study: 2012, p. 30, at http://stateparks.mt.gov/about-us/scorp.html
52. Id.
53. Colorado Statewide Comprehensive Outdoor Recreation Plan, 2013 Public Survey Summary Report, p. 35, at http://cpw.state.co.us/aboutus/Pages/SCORP.aspx
54. 2011-2012 Wyoming Comprehensive Snowmobile Recreation Report, p. 3, at http://wyotrails.state.wy.us/pdf/2012Snowmobile Reportkeyfindingssummary.pdf
55. Environmental Assessment for the Medicine Bow-Routt National Forests and Thunder Basin National Grassland Winter Recre ation Management and Routt Forest Plan Amendment. May 2005.
56. http://www.outdoorfoundation.org/pdf/ResearchRecreationEconomyStateMexico.pdf
57. Arizona 2013 Statewide Comprehensive Outdoor Recreation Survey, p. 147, at http://azstateparks.com/publications/downloads/2013_SCORP_c.pdf
58. Mammoth Lakes Region of the Inyo National Forest Winter Recreation Needs Assessment Survey. Findings, Working Report. Feb 2005.
59. Id.
60. Deschutes National Forest Winter Recreation Suitability Analysis. August 2009.
61. SCORP – Ensuring Oregon's Outdoor Legacy, 2013-2017 Statewide Comprehensive Outdoor Recreation Plan, p. 51. And Out door Recreation in Washington – the 2013 Statewide Comprehensive Outdoor Recreation Plan, p.47.
62. Michigan Statewide Comprehensive Outdoor Recreation Plan, 2013-2017, at p. 4. Available at http://www.michigandnr.com/publications/pdfs/grants/scorp%20final%20report.pdf
63. Chugach National Forest, Kenai Winter Access Record of Decision. July 2007. Chugach National Forest Land and Resource Management Plan. May 2002.

Winter Wildlands Alliance is a national nonprofit organization promoting and preserving winter wildlands and a quality human-powered snowsports experience on public lands.