

THE TREAD LIGHTLY! GUIDE TO RESPONSIBLE SNOWMOBILING

INTRODUCTION

We did not inherit the Earth from our parents,
We are borrowing it from our children.
-Native American Proverb

For many of us, enjoyment of the outdoors is the main reason we recreate—“to get away from it all.” Winter pursuits, such as winter camping, ice fishing, photography, organized snowmobile club activities, trail tour riding, etc. have all grown in popularity creating more stress on natural resources and more opportunities for conflict among the different recreation groups.

Snowmobile access to trails provides the opportunity to bring out the Lewis and Clark in all of us—to explore and enjoy the great outdoors. But we have a responsibility to take care of the outdoors just as we would our own homes.

The *Tread Lightly! Guide to Responsible Snowmobiling* will help you prepare for an enjoyable outdoor experience on a snowmobile, and at the same time, help you to be a responsible, positive force on nature and those around you.

Now, off to the wonderful world of responsible snowmobiling, the Tread Lightly![®] way.

WHAT IS TREAD LIGHTLY!?

Tread Lightly! is a national nonprofit organization with a mission to proactively protect recreation access and opportunities in the outdoors through education and stewardship. Tread Lightly!'s educational message, along with its training and restoration initiatives are strategically designed to instill an ethic of responsibility in a wide variety of outdoor enthusiasts and the industries that serve them. The program's goal is to balance the needs of the people who enjoy outdoor recreation with our need to maintain a healthy environment.

In 1985, the U.S. Forest Service launched the Tread Lightly! program as a means of addressing concerns about the impacts from increasing numbers of visitors to the great outdoors for recreational purposes. In 1990, to maximize the program's effectiveness, management responsibilities were transferred to the private sector, making Tread Lightly! an apolitical, nonprofit organization. Tread Lightly! is now the nation's signature ethics message for recreationists that use motorized and mechanized vehicles in their outdoor pursuits.

Tread Lightly! has become an ethical and educational force in bringing together and unifying a broad spectrum of stakeholders including agencies, industry, media, conservation and enthusiast groups, and concerned individuals who share a common goal—to find a balance between humans and nature.

Our federal partners in spreading the message of responsible and ethical use of the outdoors include the National Park Service, Forest Service, Bureau of Land Management, Bureau of Reclamation, and the Army Corps of Engineers.

The message is simple: conserve our environment! Make the commitment to follow Tread Lightly! principles as summarized in the Tread Lightly! Pledge:

Travel Responsibly
Respect the Rights of Others
Educate Yourself
Avoid Sensitive Areas
Do Your Part

These are the basic tools for responsible recreation. In the following pages you will find in-depth information on how to Tread Lightly! by minimizing your impacts on land with your snowmobile. By practicing these principles and suggestions provided in the guide, you will help protect natural resources and preserve access to public lands.

Treading Lightly On Land

TRAVEL RESPONSIBLY on roads and trails or in permitted areas.

The Fundamentals...

- Travel only in areas that are open to your type of recreation.
- Stay on routes and trails designated for your type of travel.
- Understand and practice proper techniques related to negotiating terrain.
- Comply with signs and barriers.
- Always travel with a partner. Traveling solo can leave you vulnerable if you have an accident or breakdown.

These are the fundamentals of reducing impacts on the land. Each recreational activity requires specialized techniques for negotiating terrain. By learning and applying these techniques, your impact on natural resources will be greatly reduced.

Terrain Features

- Obey all trail signs, including speed limit signs, stop signs, and hazard warnings. Warning signs can refer to bridges, sharp curves, steep hills, large bumps, or road and trail crossings.
- Stay on deep snow cover whenever possible.
- Observe speed limits; whether they are posted on every trail or not, it is your responsibility to obey local speed limits.
- Operate your snowmobile only when there is sufficient snow cover.
- When climbing a hill, approach the summit with caution in case there is another snowmobile, a steep downhill, a sharp turn, or some other potential hazard beyond your line of sight.
- Do not ride off cornices (snowy overhangs), as they are unstable and dangerous.
- Use good judgment when traveling on frozen waterways. If you must ride on lakes, streams, or rivers, approach them with caution and check ice conditions beforehand. Ride at reduced speeds to optimize your view of potential hazards.
- Always cross roadways at a 90-degree angle to the road to hasten the crossing.

- Reduce your speed on the trail when approaching a corner. Squeeze the brake lightly, at least once, to evaluate how slippery the snow is and to slow your snowmobile in advance of the turn. Keep to the right side of the trail on every corner. Do not slide the snowmobile through the corner, or accelerate hard out of the corner; you will damage the trail.
- Be aware of trees, stumps, and branches near the trails. Avoid them by maintaining control at reasonable speeds.

Riding Tips

- Keep your feet in the foot wells when riding.
- Do not lock your brake when going downhill. Rather, pump the brake repeatedly, releasing it just as the track locks up and is about to slide, then apply it again to further slow the snowmobile.
- Lean into turns slightly with your upper body to enhance the snowmobile's maneuverability and to avoid tipping the machine up onto one ski.
- Touring snowmobiles have extended seats designed to accommodate up to two riders. Do not ride two-up on a snowmobile designed for only one rider because this could result in a hazardous loss of control and maneuverability. Make sure the passenger riding on the back of a two-up seat leans slightly into turns with the driver. Take advantage of having two sets of eyes on board, and make sure the passenger is watching for hazards and other snowmobiles.

Avalanche Awareness

The best way to avoid avalanches is to be informed, travel with the appropriate gear, and avoid high-risk areas. Check www.avalanche.org for more information on avalanche safety and if you have the opportunity, take an avalanche safety course. The tips below serve as general safety information for traveling in avalanche terrain.

- Before you go, contact the local avalanche center for the latest avalanche forecast.
- Be prepared with contact information on the local search and rescue organization in case of an emergency.
- Pack rescue gear. Wear an avalanche beacon and know how to use it. A small pack with a shovel and a probe should be worn on your body at all times. Pack a cellular phone, emergency phone numbers, and a GPS device if possible.
- If you travel in avalanche terrain, ALWAYS travel with a partner. Have a rescue plan before you begin. What will you do if you trigger an avalanche? How will you respond if you are the rescuer?
- Use terrain to your advantage. Follow ridges, thick trees, and slopes with safer consequences. Avoid terrain traps such as gullies, creek beds, and depressions. Don't wait at the bottom of steep slopes. Watch other riders and skiers from a "safe spot" or area outside of an avalanche path.
- Any slope steeper than 25 degrees can avalanche. Slopes 30 to 45 degrees are more prone to slide. Avoid these steeper slopes.
- Periodically check for clues to an unstable snow pack. These include recent avalanches, new snow, wind loading, rain, whumping noises or hollow sounding snow, shooting cracks, and/or signs of rapid or intense warming (roller balls and point releases).

- Smooth, steep, wind loaded slopes can be very dangerous. Check stability before attempting to ride these slopes.
- If you enjoy riding or skiing steep slopes, remember, ONE PERSON AT A TIME! NEVER ride or ski above your partner.
- If a snowmobile gets stuck, don't ride up to help. The extra weight on the slope may trigger an avalanche.
- Old tracks do not mean a steep slope is safe. Always check for instability.
- Understand cornice safety. Cornices are overhanging deposits of wind-drifted snow that form along the leeward side of a ridge. Cornice breaks can be caused by the additional weight of you or your machine. Make sure the snow your on has solid ground underneath. Do not ride or ski on slopes overhung by a cornice.

RESPECT THE RIGHTS OF OTHERS including private property owners and all recreational trail users, campers and others to allow them to enjoy their recreational activities undisturbed.

The Fundamentals...

- Respect and be considerate of other users so that all may enjoy a quality outdoor experience. Keep a cheerful, pleasant attitude. A gracious "Hello" goes a long way to building a friendly relationship with other trail users.
- Yield the right of way to those passing you or traveling uphill and always yield to horses. When driving also yield to skiers and snowshoers.
- Leave gates as you find them unless otherwise posted.
- If crossing private property, be sure to ask permission from the landowner(s).
- Don't be a trail hog. Share with all those who recreate, regardless of their means of travel.

Respect and common courtesy go a long way. By valuing the environment and those who enjoy it, you keep recreational opportunities available for you and others to enjoy. Remember these basic rules and you will find your outdoor experience to be more rewarding.

- Before starting a day's ride, agree as a group on hand signals to use on the trails. You should include signals for "stop ahead," "oncoming riders approaching," "slow—hazard or sharp curve ahead," and "road crossing clear, proceed with caution." Common signals among experienced trail riders include holding up fingers to represent how many snowmobiles are behind you in your group or holding up a fist if you are the last one.
- Ride single file. Trails are typically groomed wide enough for only two snowmobiles. You must leave room to your left for oncoming snowmobiles to pass.
- Excessive sound is bothersome to some people and to wildlife. Retain and maintain your snowmobile's stock exhaust system. Snowmobile exhaust is the single most important issue causing user conflict.
- Be a courteous rider. Yield the right of way when it helps the traffic flow to be safer and smoother.
- Keep to the right on the trails—even when you do not see any oncoming traffic. It is essential to stay to the right while riding around corners to avoid collisions with passing snowmobiles. Reduce speeds as required to stay to the right while cornering.

- Pass on the left, but only pass another rider if that rider is aware of your presence and has waved you on. Make sure you have complete visibility of the trail ahead so you know it is safe to pull out to the left to pass. Slower groups of riders should slow down and hug the right edge of the trail to let faster riders pass.
- When stopping along a trail, pull your snowmobile as far to the right side of the trail as possible in a very visible stretch of the trail. Do not stop near corners, and consider how many riders are in your group so the last riders aren't parked near a corner. Park single file and watch for oncoming snowmobiles.
- Ride only where permitted. Obey "no trespassing" signs, even if you see tracks in the posted areas. Being a responsible snowmobiler can help all riders retain access to choice riding areas.
- Unless a marked trail clearly routes you around a locked gate, obey all gate closures as you would in a vehicle. If you have permission to go through a gate, leave it as you found it, either open or closed.
- Respect fence boundaries and landowner(s)' rights, even when the fences are snow-covered. Always obtain permission to cross private land, and stay on the trail.
- Park in designated areas at trailheads. Do not park in restricted areas or in a way that blocks traffic or other vehicles. If necessary, unload the sleds from the trailer, and then park the tow vehicle.
- Trails are for riding – not racing! Leave the competition at the racetracks. If you absolutely must go fast, enter a sanctioned snowmobile drag race or radar run.

EDUCATE YOURSELF by obtaining travel maps and regulations from public agencies, planning for your trip, taking recreation skills classes, and knowing how to use and operate your equipment safely.

The Fundamentals...

- Know local laws and regulations.
- Know which areas and routes are open to your type of recreation.
- Make your trip safe. Have the right information, maps, and equipment and know how to use them.
- Make sure the vehicle is compatible with snow and trail conditions.
- Make sure your vehicle is mechanically up to task. Be prepared with tools, supplies, spares and a spill kit for trailside repairs.

With a little preparation and education, you can make your next backcountry experience fun and safe while protecting the environment. Always plan for the expected as well as the unexpected. If the opportunity presents itself, take a course or workshop related to your favorite outdoor activity. Universities, community education programs, and outdoor retailers and outfitters often offer classes related to recreational activities. Education and preparation will make your trip easier and more enjoyable.

- Obtain a travel map of the area you wish to explore. After selecting a destination, determine which areas are open for your type of use. Select the safest route for your ability, and determine what special rules and regulations may be in effect.

- Contact the land manager to see if there are certain times or specific areas to avoid: times when wildlife are particularly sensitive to disturbance (e.g. nesting or birthing seasons) or when soils are wet and prone to rutting; areas that are particularly sensitive to disturbance because of rare or endangered plants and animals, critical wildlife habitat, or fragile soil or vegetation types; and problem areas that are extremely crowded or where environmental impacts are severe.
- Check the long-term weather forecast for the location you will be visiting. Dress and pack gear accordingly. A storm that you aren't prepared for can be a miserable experience at best and an outright disaster at worst.
- Make a realistic plan and stick to it. Let someone know where you will be and when you will return, even on a day trip. Have an itinerary of your overall trip and leave a copy with family or friends in the event of an emergency.
- Carry local trail maps and area highway maps to get the best idea of your location and proximity to towns, roads, and trails. Better yet, invest in a global positioning system transceiver (GPS) to accompany your maps.
- Be familiar with the different signs that you will see on the trail and proceed accordingly.
- If you are towing a trailer of any sort make sure it is properly maintained and the taillights work.
- Dress in layers so you can remove clothing if you get warm or wet and put it on again when needed. The clothing closest to your skin should be non-absorbent so it wicks moisture away from your skin to prevent chills. The next layer or two should be comfortable and loose enough to trap warm air. The outer layer—your bibs, jacket, and gloves or mittens—must be the most protective: as waterproof and windproof as possible, and durable enough to withstand branches along the trail.
- On state or federally managed lands, check with rangers or land managers to clarify which lands are open for riding. Watch for signs at trailheads to verify that snowmobiles are permitted on the trails you are entering. On private land, check with landowner(s) for permission to access their land.
- Check local rules. Ride only where permitted and in areas where you may harm wildlife or vegetation. Remember, designated Wilderness areas are closed to all forms of mechanical use, including snowmobiles. There may be some exceptions in Alaskan Wilderness areas.
- Regardless of where you ride, be sure your snowmobile is properly registered with your home state or province. Learn whether you need special local trail permits or registration where you plan to ride. Some counties, states, or parks require special permits.
- Make sure you are completely familiar with the operation and controls of your snowmobile, and use riding time to get as comfortable as possible with the machine's power and handling characteristics. Read the Owner's Manual. Make sure to perform regular maintenance and familiarize yourself with basic mechanics such as changing belts and plugs.
- If you or another newcomer needs instruction or riding tips, contact your local snowmobile dealer or snowmobile club. Clubs usually have members who are certified safety instructors; they will be adept at teaching you the basics on riding techniques and safe snowmobiling.

- Wear a helmet when snowmobiling. It is your head's best protection in case of an accident. It is also the best protection from wind and cold. Full-face helmets provide the greatest safety and protection.
- Make sure your helmet fits properly. A helmet should fit snugly, without pinching or hurting. You should be able to slide a finger between your head and the helmet padding. With the chinstrap buckled, you should not be able to pull the helmet forward off your head.
- Snowmobile riders can find themselves in harsh weather conditions. Current snowmobile clothing is excellent at providing warmth and preventing wind and moisture from chilling a rider. Do not cut corners when purchasing riding gear, because it is your best protection against the elements. Be sure to select garments that do not absorb moisture, robbing you of body heat.
- Keeping your feet warm and dry is essential. Choose boots that are waterproof and have a warm lining or insulation, preferably a removable liner you can dry at the day's end. Rubber is the most effective at keeping soles sealed and waterproof. For uppers, thick leather or waterproofed fabrics are good at keeping water from reaching the insulation or liner.
- Some riders, especially those who ride in areas laced with rivers, streams, and lakes, wear flotation suits. These suits provide protective shells and warm insulation as well as internal flotation devices that keep a rider afloat if he or she ends up in water. Look for suits whose flotation materials are approved by regulatory agencies. Remember that this extra protection does not diminish the need for caution near bodies of water.

Safety

- Be certain each member/vehicle in your party has a map and knows where the group is headed. Select predetermined rest stops and designate meeting places in case of separation. If you do become separated, stay on the correct trail and let the group find you. Taking different trails could facilitate you becoming lost.
- Don't overextend daylight hours. Plan your schedule to allow being back at the base, campsite, or designated meeting place at a predetermined hour.
- Always travel with a basic first aid kit and survival supplies.
- Be prepared in case of an emergency that requires you to spend the night in the backcountry.
- A cellular phone is a smart, potentially lifesaving link to help in case of an emergency. Before your day's trip, write down local emergency telephone numbers and bring them with you. Keep in mind, however, that you may not have service in the area. In some locations only satellite phones provide service.
- Travel with a partner. Not only is there fun in numbers, but traveling with at least one companion is also essential to your safety. Remember that you're traveling in the backcountry, sometimes into remote areas at great distance from roads and towns. The buddy system is vital to avoiding tragedy in case of emergencies such as a mechanical breakdown or an accident.
- Do not reach the point of mental or physical exhaustion. Have fun, and end the day's trip before you are too tired to travel safely.
- Pack emergency equipment, which will help with survival if stranded.

- If a person develops hypothermia, warm up the person as quickly as possible by rubbing him or her vigorously and getting him or her into dry clothes. Give the victim warm liquids. Do not give alcohol.
- Know how to build a snow cave for protection. Practice making one during a trailside lunch break. If using a snow cave, check stability daily, and breakdown the snow cave after use.
- The number one cause of snowmobile accidents is alcohol. Do not drink and ride. Even one drink impairs response time and judgment, two vital skills for snowmobiling. Alcohol thins blood and allows your body to cool faster, which may be the difference between life and death in an emergency situation.
- Learn the limits of your ability and drive at safe speeds.
- Modern snowmobiles have excellent brakes, but when riding on inherently slippery surfaces (snow and ice), you cannot expect to stop as quickly as is possible in a vehicle. Be aware of your surroundings and of other snowmobilers so you can react and respond in time to avoid accidents. If you cannot stop a safe distance from the snowmobile in front of you, you are tailgating. Leave yourself plenty of room to stop and watch for the brake lights of snowmobiles ahead of you.
- When not on a groomed or marked trail, be aware of unmarked hazards or obstacles hidden beneath the snow, including fences, rocks, gates, and ditches.
- Play it safe as the daylight changes. Terrain and snow contours can be difficult to see at dusk. Reduce your speed, take a break, or stop for the night.
- Ride defensively. Make safety the highest priority when deciding whether to proceed or to give way when encountering other riders and road crossings. Do not assume that other riders or motorists will always see you or respond properly.
- Watch out for trail groomers, especially at night. They are big and typically move at slow speeds on the trails. Make sure you can stop if you round a corner and encounter a groomer. Inquire at trail stops about whether any groomers are on the next stretch of trails you will ride. Always assume that a groomer is on the trail.
- Watch out for oncoming traffic. Make sure your group's leader is a safety-first rider who signals to the group when oncoming snowmobiles are spotted. Both groups of riders should slow while passing each another, and every rider should hug the trails outside edge to make way for passing snowmobiles.
- If you do experience operational problems or breakdown, stay with your snowmobile and stay on the trail.

Night Riding

- Night riding can be delightful. However, be alert when riding at night and take precautions. Pack emergency gear and notify others of the routes you will take and when you expect to return.
- Avoid riding unfamiliar trails at night.
- Your vision is limited to only what your snowmobile's headlight illuminates, so reduce your overall speed, and take your time when riding at night. Be especially observant of other snowmobiles, road crossings, and hazards such as hills and sharp curves. You should also keep an eye out for nocturnal wildlife. Tinted goggles are effective on bright days but can diminish vision at night.
- Don't override the area illuminated by your headlights. If you ride too fast you may not see hazards on the trail in time to react.

- Consider adding reflective tape to jackets, helmets, and gloves or mittens so you will be more visible to fellow riders.

Finally, one of the best ways to educate yourself is to take a snowmobile skills class. Local organizations, retailers and dealerships, government agencies, and educational organizations (colleges, universities, local school districts, non-government organizations) provide a wide variety of education.

Simply put, a little planning and preparation will make for a fantastic trip. Not only will all aspects of your travel go smoother and safer, you are more likely to leave less of a lasting impression on the environment.

AVOID SENSITIVE AREAS such as meadows, lakeshores, wetlands and streams, unless on designated routes. This protects wildlife habitat and sensitive soils from damage.

The Fundamentals...

- Other sensitive habitats to avoid unless on designated routes include tundra and seasonal nesting or breeding areas.
- Avoid disturbing historical, archeological, and paleontological sites.
- Avoid “spooking” livestock and wildlife you encounter and keep your distance.
- Motorized and mechanized vehicles are not allowed in areas designated Wilderness.

With the number of recreationists rapidly growing every year, the repeated and often unintentional misuse of land creates environmental damage especially in sensitive areas. By using common sense and taking a few precautions, recreationists will ensure that the natural places they frequent will remain available and in good condition for future use.

- Always stay on designated roads and trails or other areas open for use.
- Low snow, don’t go. Riding in these conditions can damage plants and soils just below the snow’s surface.
- Be respectful of wildlife’s wintering habitats.
- Remember, designated Wilderness areas are reserved for the most primitive outdoor adventure. These areas were set aside by Congress to protect the natural landscape and the wilderness experience. These designated areas are solely for non-mechanized travel—by foot or horseback. OHVs, snowmobiles, personal watercraft, or mountain bikes are not allowed. Please respect the legacy of these areas and leave it to those traveling by foot or with pack animals.

DO YOUR PART by leaving the area better than you found it, properly disposing of waste, minimizing the use of fire, avoiding the spread of invasive species, restoring degraded areas, and joining a local enthusiast organization.

The Fundamentals

- Leave it better than you found it. Carry a garbage bag and pick up litter left by others.

- If you encounter repairable damage on the road or trail, don't pass it by. Stop and pick up litter, and repair damage as best you can.
- Properly dispose of garbage, sanitary waste, and gray water.
- Follow practices to avoid spreading invasive species.
- Protect the soundscape by preventing unnecessary noise.
- Join a local enthusiast group. They provide great opportunities to learn more about your sport and local recreation areas, volunteer events, and a community to share your experiences with.

Taking a little extra time and effort to minimize your impacts and mitigate the impacts of those who came before you will keep your favorite recreation spot open and beautiful today and in the future.

Minimize Use of Fire

- Observe all fire restrictions.
- Using a fire pan is a good way to minimize impacts as a fire ring is visible after the snow melts. A fire pan should have three-inch high sides and be placed on rocks or lined with mineral soil so the heat won't scorch the ground.
- For firewood, use only fallen timber. Gather firewood well away from your camp. Do not cut standing trees. There should be enough wood that its removal for a fire is unnoticeable.
- Do not depend on fires as a source of heat.
- For cooking, use a camp stove. They are always preferable to a campfire in terms of impact on the land.
- Never burn trash in a campfire.
- Let your fire burn down to a fine ash. Ensure your fire is completely extinguished. Cool ashes should be scattered widely.

Waste Disposal

- In areas without toilets, use a portable latrine if possible and pack out your waste.
- Bury human waste in a shallow hole in the snow at least 200 feet from a recognizable water resource.
- It is recommended to pack out your toilet paper and hygiene products.
- Repackage snacks and food in baggies. This reduces weight and amount of trash to carry out.
- Pack out what you pack in.

Protecting the Soundscape

Natural sounds are essential to the health of the environment. Man-made noise can reduce the quality of the natural experience and can be detrimental to the wildlife in an ecosystem.

- Check with a land manager to determine if sound restrictions exist for your form of recreation.
- Make sure your engine and exhaust system are well tuned. Your vehicle will run smoother and quieter.

- Avoid revving your engine or running at full throttle, both of which create unnecessary noise.
- Four-stroke engines run quieter than two-stroke engines and meet the 96-decibel sound level supported by national OHV enthusiast organizations.
- Respect others' desire for quiet solitude and the sounds of nature. Early morning and late afternoon is often the time when people enjoy peace and tranquility.
- Don't overstay your welcome. When traveling by snowmobile, move around and stay away from high traffic areas.
- Be aware that continued exposure to unnatural noise could cause chronic stress to wildlife. Take appropriate measures to reduce travel in areas inhabited by wildlife.

Minimum Impact Camping

Sometimes our travels with our snowmobiles are coupled with winter camping. An overnigher or extended camping trip requires proper preparation. Here are some helpful tips to assist you in camping with minimum impact.

- Choose campsites in a safe location out of avalanche paths and open wind affected areas.
- Camp at least 200 feet from a recognizable water source.
- Avoid camping on designated summer campsites to allow these areas time to recover from summer use.
- Pack out human waste or dig a shallow hole in the snow to disguise it and ensure rapid decomposition.
- Destroy any snow structures before departing your site. Leaving snow structures encourages others to use the structure, concentrating use. They can also become a safety hazard.