

THE TREAD LIGHTLY!  
GUIDE TO RESPONSIBLE  
DIRT BIKING

**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 an important part of our life. It is how we relax, find adventure, and get away from the hustle of everyday life. Hunting, fishing, camping, photography, canoeing, hiking, biking—you name it—have become very popular.

Dirt bike riding is another growing form of outdoor recreation. Enthusiasts enjoy the opportunity to get deeper into the backcountry to enjoy nature, hone their technical driving skills, and experience the comradery of the shared experience with other enthusiasts.

Each of us has a different reason for pursuing outdoor recreation but we all share the responsibility for protecting natural resources, respecting other recreational trail users, and maintaining access to our favorite recreational opportunities. The best tool to achieve these responsibilities is to maintain a positive outdoor ethic which minimizes impacts on our lands, waters, and other recreationists. The Tread Lightly!® principles do just that.

Throughout the *Tread Lightly! Guide to Responsible Dirt Bike Riding*, we will help you prepare to responsibly enjoy your off-highway outdoors experiences, and to be a positive influence on nature and those around you.

Now, off to the wonderful world of responsible dirt bike riding, 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 Responsible**  
**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 dirt bike. 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.
- Don't create new routes or expand existing trails.
- Cross streams only at fords where the road or trail intersects the stream.
- Understand and practice proper techniques related to negotiating terrain.
- 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. Dirt bike riding requires specialized techniques for negotiating terrain. By learning and applying these techniques, your impact on natural resources will be greatly reduced.

### **Negotiating Terrain**

Dirt bike riding is one of the fastest growing recreation activities in the country. With large numbers of riders hitting the trail this sport can lead to damaged lands if not done responsibly.

Successful dirt bike riding is all about skill. It is the skilled rider who can ride slowly over challenging terrain with minimal impact to the ground. Using skill and common sense will help you get to your destination smoothly, safely, and in style.

### **Slick Trails**

- Restrict recreation during periods of wet or muddy soil conditions to reduce damage to the trail surface.
- Minimize use of throttle. Many riders think that using more throttle will get them through slick or wet trails better. Usually, just the opposite is true because high wheel spin merely turns your drive tires into “slicks.” It is much better to finesse the throttle for maximum traction.
- If your dirt bike has a manual clutch, you can also use it to feel for traction. The goal is to maintain forward motion while minimizing wheel spin.

### **Stream Crossings**

- Cross only at established fording points, and check water depth carefully.
- Take it slow and steady. Try to identify big rocks or other obstacles before you begin crossing. If you spill or drop into an unexpected deep hole, shut off the engine quickly to prevent water from being drawn past the air cleaner.
- Avoid blasting through streams. It is detrimental to fish and other aquatic life, not to mention your engine. Stirring up the sediment in the stream bottom makes it harder for fish to breathe and find food.
- Avoid crossing streams at high speed; it can cause water to rush into your air box, drowning the engine.

### **Logs**

- Ideally, it is best to move a fallen log off of the trail, but if you can't, go over it. Riding around it widens the path or makes another trail.
- If you come across an obstacle you can't move, let the land manager know the location so he or she can take appropriate action.
- If you must go over a log, use the throttle and shift your weight to the back of the bike just enough to lift the front wheel over the log. You will want to carry just enough momentum to get the rear tire over. If you don't, you could dig a rut in front of the log, and spend a lot of time and energy lifting your bike across.
- Again, too much throttle and wheel spin will dig up the trail and could make the maneuver dangerous.

### **Switchbacks**

- Switchbacks are sharp, zigzag turns in trails going up steep terrain. They exist for a reason: to keep grades low and to prevent the trail from eroding during storms.
- Skilled riders work their way through these challenging features, relying on weight shifts and smoothness to negotiate the turns while reducing wheel spin.
- When riding switchbacks, avoid roosting around the apex of the turn when climbing, or brake-sliding while heading down. Both techniques gouge the trail, requiring increased trail maintenance.

- If the turn is tight (going up), skilled riders can “loft” the front wheel slightly while pivoting on the rear tire. It is a tricky move. Don’t try it in a dangerous spot.
- When riding down extremely tight turns, you may find it easier (and safer) to get off the bike (to the *inside* of the turn) and walk it around. First, shut the engine off, put it in first gear, pull the clutch gently to allow the bike to roll forward, and release the clutch to use it like a hand brake for the rear wheel.

### **Ruts**

- Stay loose over the machine to allow for any sudden directional changes the ruts may cause.
- Look ahead, and exercise smooth throttle control.
- Avoid digging the grooves deeper and be wary of slippery tree roots or rocks spanning the ruts.

### **Meadows & Marshy Areas**

- These sensitive habitats deserve special protection; never go through them. Riding through undergrowth or across meadows can destroy nesting sites and other sensitive habitats. Ride only on designated trails and roads.
- Look for trails around the edge of such areas, where the soil is more firm and dry. Ruts made in meadows leave a terrible impression on the environment and everyone who sees them.
- When you cross a meadow on a trail, stay on the existing track. If the trail is too muddy, turn around or find an alternate legal trail to your destination. Don’t make new trails across meadows or marshes.

### **Rocks**

- Ride loose rocks with your rear end slightly off the seat, looking ahead, keeping easy on the throttle, and remaining in one gear higher than you would normally.
- For big stationary rocks, rise farther off the seat, keep knees bent, keep feet high on the footrests, and pick your line very carefully.
- Beware of large rocks on a tight trail that can damage the shift or brake levers, or worse yet, punch a hole in the engine case.
- A finger on the clutch lever can soften the blow when you hit a well-anchored rock at the wrong angle.
- If your dirt bike has a clutch, a slight pull on the clutch lever softens the power delivery to the ground, making a smoother ride.

### **Sand**

- Ride sand relaxed, yet maintain a tight grip on the bars. Look down the trail far enough to react to upcoming obstacles, sit or stand with your weight toward the rear of the bike, gently squeeze the tank with your knees, and avoid chopping the throttle abruptly to keep the front end from “diving.”
- Easing off the throttle in loose, soft sand can act as a natural brake for slowing down.
- Because of sand’s power and momentum-robbing characteristics, you may find it helpful to accelerate a little sooner and brake a little later than you normally would. This will

help keep you on top of the sand and keep your movements more fluid. Only practice this technique in areas with no obstacles or hazards. Watch out for other riders.

- Don't ride at higher speeds where there is limited visibility and watch for loose sand that can cause the front wheel to "dive" or lose control.

### **Machine Tuning**

- Riding an improperly prepared vehicle can cause damage to the terrain while you're trying to compensate for poor performance.
- If your vehicle is not set up properly, it can make otherwise simple obstacles more difficult to overcome.
- To compensate for a poor tuning, you may have to rev the engine at a much higher rpm just to keep it running. This can make riding dangerous and can increase wheel spin and your impact on the trail. Gearing can have the same effect; if first and second gears are too high for tight trails, you won't have much fun.

**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 hikers, and bikers. Leave gates as you find them unless otherwise posted.
- If crossing private property, be sure to ask permission from the landowner(s).
- Keep the noise and dust down.
- 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.

- Yield right of way to drivers on the uphill grade or those who may overtake you.
- Non-motorized travelers maintain the right of way. Yield to bicycles, horses, and hikers.
- When encountering pack animals use extra caution. Slow down, move to the side of the trail, stop and ask the handlers how to proceed. If you are wearing a helmet, remove it to look human to the animals and don't make sudden movements.
- Ranchers use public lands to graze livestock. It is important to leave gates as posted or if there are no signs leave gates as you find them—open if open, closed if closed.
- Do not idly ride around in camping, picnicking, trailhead, and residential areas.
- Keep speeds low around crowds and in camping areas.

**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 road or 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.

### **Preparation**

- 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. They also have specific information on road and trail conditions, temporary or seasonal closures, special permits, or low-impact driving practices that apply to off-highway vehicle use.
- 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.
- Check to see if the state requires special licensing or safety certification for the driver(s). Is any special equipment required?
- If needed, get your vehicle serviced or repaired before the trip.

- Do a ‘dry run’ before you go to be sure everything fits and that you haven’t forgotten anything. Note what you have missed and what you may need as you are en route (food, fuel, water, emergency tools, or supplies).
- Dirt bike riders are exposed to the elements. A great ride can turn into misery if you are caught unprepared. It is always better to have more clothing than you need.
- Check local regulations for sound levels, spark arresters, age limitations, training prerequisites, and necessary registration requirements. Some states may require a temporary user permit for out-of-state visitors.
- Be sure you know the location and operation of all controls on your dirt bike: brakes, engine stop switch, throttle, shifter, clutch, and parking brake. Learn how to find and use the controls without looking down at them. You will not have time to look for controls when riding or during emergency situations. Control locations may vary from model to model. If you switch to another vehicle, take the time to familiarize yourself with its controls.
- A *DirtBike School<sup>sm</sup>* class or other OHV safety training course can provide fast-paced hands-on training that includes pre-ride inspection, starting and stopping, quick turns, hill riding, emergency stopping and swerving, and riding over obstacles. You’ll also learn about protective gear, local regulations, places to ride, and environmental concerns.

## 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 a 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.
- Carry only the number of passengers your dirt bike is designed for or as local regulations require. Certain areas prohibit double riding; contact your local land manager(s).
- Always wear a helmet, eye protection, long-sleeved shirt, sturdy pants, over-the-ankle boots, and gloves. Specialized riding jerseys and pants can keep you cool yet dry to combat premature fatigue, while a chest protector and knee pads can be cheap insurance against injuries.
- Pace yourself. Dirt bike riding is physically demanding and can be compounded by high altitude, heat or cold. Drink plenty of water before and during the ride to avoid

dehydration. Know your limitations and keep your body “fueled-up” at regular intervals throughout the day. Don’t be too proud to take a less challenging route if you feel tired.

- If your dirt bike is equipped with a headlight, riding with it ON at all times will allow other trail users to see you sooner.
- Be sure youngsters ride the right size dirt bike. Supervise riders younger than 16.
- 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.

**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 cryptobiotic soils of the desert, 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 (e.g. sand dunes).
- Leave what you find. Avoid picking wild flowers or taking plants and cultural artifacts. These things are best left in their natural environment.
- Avoid “spooking” livestock (horses, mules, cattle, sheep, llamas) or wildlife you encounter on the trail. Move slowly and keep your voices low. These animals should be treated with prudence. Proceed with caution.
- Driving across a meadow or crashing through undergrowth can destroy nesting sites and other sensitive habitat.
- 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 and volunteer events, and can become wonderful 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. If you must build a fire use existing fire rings, build a mound fire, or use a fire pan. Keep your fire small and allow it to burn only while in use.
  - ◆ The best place to build a campfire is in an existing well-maintained fire ring in a suitable campsite.
  - ◆ Using a fire pan is a good way to minimize impacts. 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.
  - ◆ Mound fires are a great alternative in situations when there is no fire ring or you can't carry a fire pan. To build a mound fire collect soil, sand, or gravel from an already disturbed site. Lay a ground cloth on the fire site and then spread soil in a circular, flat-topped mound at least six inches thick. Thickness of the mound is important to insulate the ground from the heat of the fire. Make sure the circumference of the mound is larger than that of the fire. The ground cloth under the mound allows for quick clean-up of the fire remnants. Replace the soil where you found it.
- 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.
- 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.

### **Waste Disposal**

- Wash 200 feet away from streams and lakes. Use biodegradable soap and scatter strained wash water so it filters through the soil.
- Do not wash in streams and lakes. Detergents, toothpaste and soap harm fish and other aquatic life.
- In areas without toilets, use a portable latrine if possible and pack out your waste.
- In areas where use of a cat hole is necessary, human waste should be disposed of in a shallow hole (6"- 8" deep) at least 200 feet from water sources, campsites, or trails.

Cover and disguise the hole with natural materials. Choose sites in un-traveled areas with good organic soils and, if possible, in direct sunlight to aid in decomposition.

- Cat holes in desert environments require holes to be only 4”- 6” deep and the site should be in direct sun to aid in decomposition. Avoid sandy washes where water flows during storms.
- In sand dunes you must pack solid waste out. Sand has no viable microorganisms to break down human solid waste.
- It is recommended to pack out your toilet paper and hygiene products.
- High use areas including river canyons may have other restrictions so check with a land manager.
- Repackage snacks and food in baggies. This reduces weight and amount of trash to carry out.
- Pack out what you pack in.
- Don’t litter in the sand dunes! Blowing sand easily covers trash that will reappear at a later date. Broken bottles and sharp objects hidden beneath the sand can damage tires and ruin trips for you and others. Glass bottles are prohibited in some areas.

### **Invasive Species**

Invasive species are non-native plants and animals that out compete with native species for valuable resources within a particular habitat. Sometimes referred to as noxious weeds or aquatic nuisance species, these organisms damage the environment, are costly to remove, and once established are almost impossible to eradicate.

- Following a trip, always wash your gear and support vehicle to reduce the spread of invasive species.
- Learn how to identify invasive species in your area and contact land managers if you discover an outbreak.
- Invasive species are one more reason to always travel on trails. Traveling off trails increases your chances of encountering and spreading these species.

### **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.
- If you are traveling on or around water, remember sound travels faster on water.
- 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 OHV move around and stay away from camping and picnicking areas.

- When camping, remember that others want to enjoy the sounds of nature. Please refrain from playing radios and music loudly.
- 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**

Often our travels with our OHVs are coupled with backcountry camping. An overnighiter or extended camping trip requires proper preparation. Here are some helpful tips to assist you in camping with minimum impact.

#### **Respect others who camp**

- Choose camping supplies in neutral colors that blend with the natural surroundings and are less intrusive to other campers' experiences.
- Be respectful of those camping in the same general area. Keep noise to a minimum, especially in the early morning and evening hours.
- Be considerate of other campers' privacy; keep your distance and avoid traveling through their campsites.

#### **Plan Your Camping Trip**

- Plan for small groups, especially in remote backcountry areas. Smaller campsites are easier to find.
- Plan meals ahead of time. Repackage food in reusable containers. This reduces weight and the amount of trash to carry out.
- Prepare a list of all the required camping gear for your trip and use it to pack.
- Talk to land managers about the location of established campsites in backcountry areas to help plan your travel itinerary.

#### **Campsite Selection**

- Whenever possible, use existing campsites. Camp on durable surfaces and set up tents and cooking areas on a non-vegetated area. Take the time to search for a suitable campsite in areas without designated sites.
- Select a campsite approximately 200 feet off trail and at least 200 feet from any water resource. Camp near boulders or vegetation to screen you from other campers.
- Avoid camping near historical, archeological, or paleontological sites or in areas of sensitive or critical habitat.