



Kentucky Trail Standards

for

Development, Maintenance and Management

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Section 1: General Rules of Sustainable Trail Development

All trails designed and built in the Commonwealth of Kentucky shall adhere by the following principles in order to ensure sustainability:

- **Limits environmental impacts**
- **Incorporates multi-use systems whenever possible**
- **Avoids user conflicts**
- **Maintenance requirements are kept to a minimum**

Characteristics of Sustainable Trails are included but not limited to the following:

1. Connects positive and avoids negative points of interest

A sustainable trail will lead users to positive points of interest and away from negative points.

- Positive points of interest are defined as desired destinations such as natural points (water features, historic sites, interesting landforms, flora and fauna, wildlife viewing areas, etc.) and user facilities (restrooms, trail heads, informational kiosks, etc.)
- Negative points of interest are defined as areas that need to be avoided such as: wetlands, steep and dangerous slopes, active mining, habitat restoration zones, other environmentally sensitive areas and hazardous conditions.

2. Keeps water off of the trail

The number one problem for sustainable trails is erosion. Erosion is expensive to repair and creates an unfavorable user experience.

3. Follows natural contours

Trails lie on the land in three ways:

- Along a fall-line (in the direction of the slope)
- Flat ground
- Along the contour (perpendicular to the slope; gently traverses a hill or sideslope)

Only the contour trail on the side-slope is sustainable because it easily sheds water. A contour trail is characterized by a gentle grade, undulations called grade reversals, and a tread that usually tilts or outslopes slightly toward the outer edge. These features minimize tread erosion by allowing water to drain in a gentle, non-erosive manner called sheet flow. When water drains in thin, dispersed sheets, dirt stays where it belongs - on the trail (*IMBA*).

Contour Trail Tips (from IMBA):

- Do everything you can to keep the water off the tread, and users on it Build on the contour and use frequent grade reversals - surf the hillside
- Follow the half-rule: A trail's grade shouldn't exceed half the grade of the sideslope
- Maximum grade should be 15 percent (except for natural or built rock structures)
- Average grade should stay under 10 percent (with grade reversals)
- Route trails to positive control points (viewpoints, water, other attractions)
- Use bench-cut construction, and excavate soil from the hillside
- For reroutes, reclaim old trail thoroughly - the visual corridor as well as the trail tread
- For highly technical trails where grade will sometimes exceed 15 percent, use natural rock, rock armoring or other rock features to add challenge and improve sustainability.

Two Critical Trailbuilding Tips (from IMBA)

1. **Avoid the Fall Line**
Fall-line trails usually follow the shortest route down a hill - the same path that water flows. The problem with fall-line trails is that they focus water down their length. The speeding water strips the trail of soil, exposing roots, creating gullies, and scarring the environment.
2. **Avoid Flat Areas**
Flat terrain lures many trailbuilders with the initial ease of trail construction. However, if a trail is not located on a slope, there is the potential for the trail to become a collection basin for water. The trail tread must always be slightly higher than the ground on at least one side of it so that water can drain properly.

An ideal trail will simultaneously incorporate all five sustainable trail principles

1. The Half Rule
 2. The 10-Percent Average Guideline
 3. Maximum Sustainable Grade
 4. Grade Reversals
 5. Outslope
3. **Keeps users on the trail**
Great environmental damage is caused when users veer off of the trail to create their own trails. A sustainable trail must meet the needs and expectations of all user groups in order to keep this maintenance burden and environmentally damaging from occurring.

Section 2: Trail User Etiquette & Safety Guidelines

- Proper safety equipment that is pertinent to the specific user groups shall be worn at all times. This can include helmets, padding, footwear, vehicle and motor size, etc.
- Trail systems shall take the steps necessary to implement, enforce and educate users on the Leave No Trace principles of outdoor ethics. Information on the Leave No Trace program can be found at www.lnt.org.
- Trail systems shall enforce some form of the following general trail rules for safety and etiquette:
 - User Yield Guide for Multi-Use Trails
 - All trail users are responsible for watching and listening to others
 - All users yield to horses
 - When meeting a horse quietly greet the rider
 - Stand quietly while the horses pass
 - Bikers yield to hikers and horses
 - Hikers yield to horses
 - Stay on the trail and travel to the right side for proper passing
 - Pass on the left; when overtaking another user, call out “on your left”

From the Tread Lightly handbook

TRAVEL & RECREATE WITH MINIMUM IMPACT

- Stay on designated routes. Travel on designated routes only.
- Travel only in areas that are open to your type of recreation.
- Don't create new routes or expand existing trails.
- Avoid sensitive habitats like wetlands, meadows, and tundra.
- Cross streams only at fords where the road or trail intersects the stream.

RESPECT THE ENVIRONMENT AND THE RIGHTS OF OTHERS

- Respect and be considerate of other users so that all can enjoy a quality experience in the outdoors.
- When driving, yield to horses, hikers and bikers. In a personal watercraft, be cautious around canoes, kayaks, and other boats.
- Respect wildlife. Be sensitive to their life sustaining needs by keeping your distance.
- Comply with signage.
- Always obtain permission to cross private land.

EDUCATE YOURSELF, PLAN AND PREPARE BEFORE YOU GO

- Know local laws and regulations.
- Have the right information, maps and equipment to make your trip safe, and know how to use them.
- If driving, be sure your vehicle is compatible with road and trail conditions.
- Know which areas and routes are open for your type of recreation.

ALLOW FOR FUTURE USE OF THE OUTDOORS, LEAVE IT BETTER THAN YOU FOUND IT

- Take out what you bring in.
- Properly dispose of waste.
- Leave what you find.
- Minimize use of fire.
- Restore degraded areas.
- Avoid the spread of noxious weeds by washing your gear after every trip.

DISCOVER THE REWARDS OF RESPONSIBLE RECREATION

- Do all you can to help preserve the beauty and inspiring attributes of our lands and waters for yourself and future generations

Section 3: Mapping standards and reporting

Section 4: Signage standards

- Larger, more visible trail markers should be used at major access points such as trailheads, parking lots or other areas as necessary.
- Medium route identification signage should be installed at regular intervals along trails.
- Mile markers, directional turns, and degree of difficulty signs should be incorporated at all logical intervals and exchanges
- Permitted user groups and trail etiquette yield signage should also be incorporated into the system
- Guidelines for trail signage:
 - Post on right-hand side of the trail, facing users
 - Always look for existing sign posts, fence posts or poles for signage
 - Ideally, per Federal standards, signage should be placed 2-4" beyond the trail tread (trail edge) and the bottom of the sign should be 4-5" above ground level to ensure that users do not come into contact with the signage
 - Always post some type of signage when there is a potential user question about how to advance the trail

Resources

International Mountain Bike Association
 Massachusetts Dept. of Conservation & Recreation
 Stay The Trail Colorado

www.imba.com

<http://staythetrail.org>