

## **SILVER LAKE PARK MOUNTAIN BIKE TRAILS RULES OF THE TRAIL**

1. **Ride On Open Trails:** Respect trail and road closures — ask a land manager for clarification if you are uncertain about the status of a trail. Do not trespass on private land.
2. **Leave No Trace:** Be sensitive to the dirt beneath you. Wet and muddy trails are more vulnerable to damage than dry ones. When the trail is soft, consider other riding options. This also means staying on existing trails and not creating new ones. Don't cut switchbacks. Be sure to pack out at least as much as you pack in.
3. **Control Your Bicycle:** Inattention for even a moment could put yourself and others at risk. Obey all bicycle speed regulations and recommendations, and ride within your limits.
4. **Yield Appropriately:** Do your utmost to let your fellow trail users know you're coming — a friendly greeting or bell ring are good methods. Try to anticipate other trail users as you ride around corners. Bicyclists should yield to other non-motorized trail users, unless the trail is clearly signed for bike-only travel. Bicyclists traveling downhill should yield to ones headed uphill, unless the trail is clearly signed for one-way or downhill-only traffic. In general, strive to make each pass a safe and courteous one.
5. **Never Scare Animals:** Animals are easily startled by an unannounced approach, a sudden movement, or a loud noise. Give animals enough room and time to adjust to you.
6. **Plan Ahead:** Know your equipment, your ability and the area in which you are riding and prepare accordingly. Strive to be self-sufficient: keep your equipment in good repair and carry necessary supplies for changes in weather or other conditions. Always wear a helmet and appropriate safety gear.

## **SILVER LAKE PARK MOUNTAIN BIKE TRAILS INFORMATION**

To keep our trails from eroding we avoid riding wet trails. Some people don't worry about wet trails and wonder why they should care. The goal of this sign is to inform and educate. While it refers to mountain bike trails at Kenosha County's Silver Lake Park, it applies to many other trails in the area and around the world.

### **WHAT MAKES OUR TRAILS DIFFERENT?**

There are many types of soils that make up trails such as rock, sand, loam and combinations. When conditions are wet or during freeze/thaw weather events, our trail surfaces are susceptible to ruts and packing. All singletrack trail systems are concerned with erosion. Local mountain bikers are aware that trails at Kettle Moraine's Southern Unit are closed when it rains, and will reopen when the soil recovers. Here's why we care about mud, tire ruts, paw prints and footprints:

#### **Land Management**

When mountain bikers partner with land managers to begin a trail project, there are agreements made up front on how the trail will be built and maintained. Sustainable trails reduce impact to nature and reduce cost and time to maintain. If trails cannot be kept sustainable, they cannot exist. We would not have a trail like those at Silver Lake if the goal was to simply build a trail and then let riders destroy it. Trails in other metro areas are made possible by the success stories shared between land managers. If we don't work together to keep our trails sustainable, it costs us all by reducing future trail opportunities and can even result in closing existing trails.

#### **Who decides when trails can be ridden?**

Kenosha County Parks staff and volunteer trail advocates from KORBA work together to determine trail open and closed status. The KORBA group pioneered the sustainable mountain bike trail relationship with Kenosha County, and trail crew and Park Officials rely on IMBA-approved standards. IMBA is the go-to resource on this topic. All KORBA's trail leaders attend a multi-day training course including hands-on training. Many have taken additional advanced level IMBA training as well. Only through this training and experience can one be put in charge of building and maintaining trails.

These leaders are the ones that partner with Kenosha County on making decisions such as closing trails. All of these individuals also ride regularly and have a vested interest in keeping the trails open whenever possible. If you want an introduction to the individuals that lead the efforts at Silver Lake, join the KORBA Facebook page and read up on the efforts to complete the trail system, groom snowbike trails in winter, and create a great recreational opportunity for all park users.

## **TRAIL SCIENCE**

There are a lot of factors that go into sustainable trails. Here are a few of the key concepts that damage trails, and the science behind building trails that can best combat any negative impact.

### **Freeze/Thaw**

Most mountain bikers understand that riding a trail when wet and muddy can cause rutting, puddles and other forms of trail degradation. However, many of these same users don't understand that trails are at even greater risk during the freeze-thaw process.

During wet fall and early spring months, when the trail becomes saturated and temperatures drop, ice forms in soil voids. Through the night temperatures drop and the freezing process pushes soil grains apart, reducing particle cohesion and soil strength, which makes the soil more erodible. During the day temperatures increase and the trail surface thaws.

Even though the surface has thawed, the ground is still frozen just below the surface. Making matters worse, the frozen ground prevents precipitation from sinking in any further. This means the thawed layer at the surface is absolutely saturated with water so it is very easily damaged. If we come riding along, hiking or walking dogs, we'll cut through the thawed layer right down to the frozen ground. The thawed layer will end up with ruts, which will persist even when the soil dries out.

This can happen between November-December, and again in March-April (and in the months between if we don't get a good snow cover). A number of factors play into how susceptible a trail is to the freeze-thaw process, including the amount of precipitation, the ability for the trail drain, soil type, and elevation. Due to these varying factors, one trail system may experience freeze-thaw when another trail system only 10 miles away may be safe to use.

Please be patient and please stay off of the trails until the trails are declared "OPEN." If you must ride, please ride the doubletrack and stay off the singletrack. Plan accordingly so that you can complete your ride before the temperatures rise and the trails start thawing out.

### **Outslope**

To avoid erosion, Kenosha County's trail designer used a proven formula: the trail tread should always be slightly higher on the uphill side so that water can easily drain off. A gentle outslope of at least 2%, preferably 5%, is ideal. Trails without this outslope catch, hold, and channel water, helping erode and destroy the trail. Proper outslope encourages water to sheet across and off the trail.

## **The Story of Good Trail Design**

Water will flow down a trail when it's trapped. Trail builders create proper outslopes and rolling grade dips to help push the water off the trail and avoid erosion. These rolling grade dips also provide that nice flowing feel to the trail. When people ride on wet trails, the rolling grade dips get blocked by ruts and by eroded and bermed soil. Moisture then starts to build up and either creates a muddy area, or eventually finds its way down the trail causing further erosion. If allowed to dry before riding, this would not happen.

When berms form, volunteers have to go out and fix these areas. These are the same volunteers that have built the trail and all the fun features we all enjoy. When the crew has to focus on fixing, that means we don't get to build new trails and features. One rider on a wet or melting frozen trail can damage many miles of trail in one ride. We all want to complete building the trail system and just ride our bikes, instead of fixing problems caused by riding when conditions are poor. Let's work together!

## **The Science of Spring Thaw**

Trails are dynamic and change with the seasons and weather conditions. Most of the season the mineral soils that make up good hardened trails are fairly stable, but spring is the most sensitive time for trails, making them vulnerable to erosion and long-term damage.

As frost works its way through the upper soil cap, the soil moves and shifts. The organic/mineral soil mix eventually re-hardens and makes for a primo path through the woods, but it's critical to let this process happen on its own.

## **LET'S WORK TOGETHER**

We hope you realize that riding wet trails isn't about the individual rider's preference. It's not whether or not you care if your bike gets muddy, and it's not about whether you pay taxes... it's not about the challenge... it's not whether you CAN, it's whether you SHOULD. There are thousands of mountain bikers who stay off closed or wet trails.

Kenosha County and KORBA would like you to become a part of our sustainable trails community and help show others that mountain bikers are respectful of the land, of those who make the trails possible, and of their fellow riding community.

Let's follow the examples above. Doing so will allow us to continue riding all year long and keep riders on the trail as often as possible. There is a lot of effort that goes into making winter riding possible so please consider your fellow riders and the volunteers. Please join KORBA to help build more trails!

## WINTER SAFETY & ETIQUETTE

Without a bit of packing, snow riding can be nearly impossible. On a normal year we simply get too much snow to ride on without the help of grooming. This is done in the form of snowshoeing the trail (please do!) and most recently via the snow machine and groomer that Kenosha County allows KORBA to use for grooming. We all need your help, however! Here are a few things you should know about winter riding at Silver Lake:

- Only ride when temps are below freezing. If you ride above freezing you leave ruts in the trail that will re-freeze. Frozen ruts are no fun and tend to last all winter. You may also harm the underlying or exposed dirt trail, which will then need to be repaired before it can open in the spring.
- While we don't discriminate on tire size, 3.7" tires or wider are recommended.
- The thinner your tires, the more your bike will dig in. If you find yourself creating a deep rut please turn around and ride another day.
- In order to get everyone back riding as soon as possible, allow groomers and fat bikers to ride first after a 2" or more snowfall. They will create the base that everyone else needs to ride without destroying the trail for everyone.
- Groomed double track hiking trails are open to all users. Please avoid hiking and riding groomed single track trails when tires, boots and paw prints leave 1" tracks. Boot tracks leave holes that are annoying to users after they freeze.
- Allow the trail time to set-up after grooming. 12-24 hours for fat bikes, 48 hours for everyone else.
- Watch for ice! It is common to have ice on the trail. Use studded tires as necessary.
- If you find yourself having trouble riding in a straight line, consider riding another day.
- Yield to other trail users as you cross their trails (hikers, skiers). STOP and look both ways before crossing other trails.
- Always wear protective gear, even in winter. Helmets are required!
- Riding is allowed on the hiking (doubletrack) trails. Please be mindful to leave no ruts on the groomed sections of trail.
- If you have to get off your bike and push (common in the snow) keep your boot tracks off to the side and your bike tracks in the center of the trail. This will help groom the trail for the next person rather than rutting it up.
- Snow often provides opportunities to ride obstacles we normally would not in summer. Try not to unnecessarily cut the trail, however. Keeping to the path helps pack the trail and keeps the land manager happy. There is no skill in cutting your own trail. Stay on the trail or stay home.
- Get out and help pack the trail. Join in on a group snowshoe "stomp" or get out there and do it on your own. If you love winter riding, give back by helping out at least once a season.

- Spread the word about fat-biking. Make it fun and keep it safe.
- Be an ambassador for the sport – stay polite, educate other bikers, discourage bad behavior, follow the rules, and we'll all have a good time this winter.

### **Fat-Bikes**

Originating in Alaska, fat-bikes can handle sand, snow and singletrack all year long. "Fat-bikes" have wide enough tires to be able to float on top of the snow while still having enough traction to pedal.

### **Ruts**

One of the biggest enemies of winter riding is frozen ruts. These are caused when riders are out in above freezing temps. Tires dig into the snow and then freeze up. Often these ruts become permanent, as there is really no way to fix them unless we get enough snow to completely pack them over. Often tires reach below the snow and ice layer into the surface of the actual trail causing damage. This damage needs to be repaired before the trail can re-open in the spring. Please DO NOT ride when temps go above freezing.

### **Tracks**

Bikers aren't the only people who can quickly wreck a winter trail. Boot tracks cause the same issue and often are deeper and more random, creating a very bumpy trail. If you encounter a hiker or trail runner on the bike trails, ask them nicely to exit the trail and stay on the designated hiking only doubletrack trails.

Let's avoid building upon the stereotype that mountain bikers are selfish and follow the examples above. Doing so will allow us to continue riding all year long and keep riders on the trail as often as possible. There is a lot of effort that goes into making winter riding possible so please consider your fellow riders and the volunteers.