

# Kansas Trails Council

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Newsletter

June 2010

## Water, Water, Everywhere!

*Editors Note: This season's frequent rain storms have had a significant impact on many of our trails as indicated in the trail reports in this issue. Rain, by itself, has little effect on a well built, sustainable trail. Add trail users (hikers, runners, equestrians or mountain bikers) to a wet trail, however, and the result can be considerable damage to the trail tread.*

*What can we do to protect our trails during the rainy season? The answer is: educate everyday trail users about the damage that can result from using a trail when it is wet. Two years ago we published an article which addressed strategies to protect trails from damage during wet conditions. We are reprinting that article in this issue with the hope that our members and readers will help us inform other trail users about this issue.*

## Got Mud?

Mud? Some trail users wear it like a badge of honor. Others avoid it like the plague. Whatever your preference, mud has inundated many trails this past year due to an unusually wet weather pattern. Trail mud presents a challenge to trail managers and trail builders that seems daunting at times. Considering current trail conditions across the state and continuing wet weather forecasts, proper trail design and construction methods are essential. Perhaps as important, trail users need to understand how trails can be damaged by use during wet conditions.

### What Can Trail Builders Do?

Trail design and construction features which minimize erosion and reduce the impact of water from a storm include: proper tread outslope and trail grade, grade reversals, knicks and de-berming.

Tread Outslope - While wet trails are inevitable following a storm, a properly outsloped trail tread will shorten drying time and reduce damage from trail use. Outslope refers to the grade of the trail tread as it crosses the trail from one side to the other. A trail outslope of 3 to 5% will cause water to sheet across the trail rather than sitting on the trail. Trails without the proper outslope trap water on the trail and increase drying time.

Trail Grade - Trail grades should not exceed one-half of the adjacent side slope. The side slope is the grade of the terrain crossing the trail. The one-half rule recognizes that water has a certain velocity as it travels downhill. Water will take the easiest, usually the steepest, path as gravity pulls it downhill. If water encounters a trail tread that is less than one-half the side slope grade it will have enough velocity to sheet across the trail and not be redirected onto the trail. Conversely, a trail tread that exceeds one-half the side slope grade may redirect the water flow from the side slope to the trail tread because it provides an easier path downhill. Water running down the trail will eventually erode the tread and often leaves puddles at low points.

Grade Reversals - Grade reversals refer to the grade along the trail tread. A trail that goes up and down provides opportunities to shed any water that might be trapped on the trail. Combined with the proper tread outslope, changes in grade along the trail provides opportunities for water to exit the trail at low points. Grade reversals can be created using the natural slopes of the terrain by turning the trail slightly up and then down the side slope of the contour.

Knicks - A knick is essentially a drain on the trail tread. Knicks are semicircle areas on the trail tread where the flat portion of the semicircle is below the downhill side of the tread and the center of the arc is on the edge of the uphill side of the tread. The grade within a knick slopes away from the arc so that the lowest point of the knick is the center of the flat line below the lower (downhill) edge of the tread. The grade within the knick should exceed the adjoining trail tread outslope so that water will be "captured" by the knick and shed from the trail. Knicks can be 6 to 12 feet in diameter in order to make the tread seem relatively flat to the trail user. A well-designed knick will be virtually unnoticed by the trail user. (Continued on page 5)



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# Trail News

## Clinton Lake

### North Shore Trails

Spring rains continuing through early June have caused the trails to be chronically wet. Many trail sections have been damaged due to continued use by everyday trail users during these wet conditions. We will begin repair of the trail tread in the coming weeks as the trails begin to dry.

High lake water levels due to the heavy rains have left portions of the Red Trail under water for many weeks. As the water recedes we'll be clearing debris and making the necessary repairs to any damaged sections. Much of the Red Trail is armored with 1-ton rocks so the tread should be in relatively good shape. The Mud Creek crossing on the blue trail has been under as much as 5 feet of water and will require armoring repair when the water recedes.

Many sections of trails will be wet longer than usual as the recent rains appear to have recharged the aquifers. As a result, some sections that have never been a problem are still very muddy. These sections will be smoothed out or armored to make the tread more sustainable.

We hope that everyday trail users will help us by not using the trails when wet. We are working on adding informative signage to educate trail users about the damage that can result from using wet trails.

Mike Goodwin ([goodwinmw@cox.net](mailto:goodwinmw@cox.net))

### George Latham Trail

The trails have withstood the excessive rains with little effect. However, because wet conditions have limited our access to the middle sections of trail, only about half of the trail has been trimmed. The middle 2 miles will be trimmed as soon as conditions permit.

The north bench at about mile 2.9 that had rotted posts has been repaired and reset in the ground. A large cottonwood tree has fallen across the trail at about mile 2.75. The 3 foot diameter trunk could not be cut with a normal chain saw, so we plan to create a log stairway this fall.

Mike Goodwin ([goodwinmw@cox.net](mailto:goodwinmw@cox.net))

## Fall River Lake Trails

What a difference a few weeks of warm weather and occasional rain can make. We were finally able to get in a couple of days of work to extend the trail in the Badger

Creek area, the rains stopped and things dry out pretty quickly there. We have made good progress. About that time the spring and early summer growing season started in full swing and....Poof! The trail in the prairie area is fairly well closed up with the nasty wild Blackberry bramble that is so prevalent there. It has proved too tough for the Herbicides that control everything else.

The trail in Badger Creek that had been cleared and sprayed last spring is still in good condition, shade keeping the growth explosion down. The flagged extension of that existing trail has had significant greening and growing, you have to hunt around to follow the flags with many out of sight with the leaves popping out all over. One day with a back-pack sprayer so far, more to come. I am optimistic that spraying will do a lot of the clearing for us through some of the brushy area.

Terry Plenert ([PPLENERT@aol.com](mailto:PPLENERT@aol.com))

## Kaw River State Park (Topeka)

Construction of the double wide gravel trail is continuing despite the wet conditions. The majority of the corridor has been rough cut and the rock base is about one-half completed. Bridges above the pond on the east side of the park and a bridge near the trailhead will be built in the coming weeks.

Mike Goodwin ([goodwinmw@cox.net](mailto:goodwinmw@cox.net))

## Perry Lake Bike Trails

Despite a long wet spell favoring vegetation growth the majority of the trail is in good shape. As of mid-June about half of the trail system has been mowed and trimmed with the other half still in pretty good shape. Wet conditions have also dramatically reduced the amount of regular traffic on the trail making some areas of the trail seem very "primitive".

As other years with similar conditions a few hot weeks and all will back to normal. Ironically the tread conditions are very good. Even with the heavy rains the trail is solid and has for the most part been useable only 1 day following the rain. Erosion control techniques seem to be holding up fine. With the loss of several key volunteers that have moved away from the area, regular volunteer help is lacking. With about half of the trail still needing to be mowed and trimmed, new trail watchers and volunteers are needed to keep the trail corridor cleared to the level trail users are accustomed. Please contact me at [lriedy@usd345.com](mailto:lriedy@usd345.com) or call 785.221.3812 to help.

Lyle Riedy ([lriedy@usd345.com](mailto:lriedy@usd345.com))

# Trail News

## Perry Lake Hiking Trails

Spring brought scheduled work days, rain, rescheduled work days...and still, some real progress. Our section 3, a length of 3.5 miles, was blazed and lopped from end to end essentially reestablishing the trail for use. Other areas did the same lop and blaze.



The rain made sure flowering plants could bloom in abundance making the later work days much more colorful (see photos below).



Dave Brackey (dbrackey@tb-engr.com)

# Trail News

## Tuttle Creek Trails

We are moving along in preparation for the Flint Hills Competitive Trail Ride the first week-end of November. The trails need continuous maintenance due to the weather. Too much rain, too much wind, and not enough time. However, the end result is always worth the work. Trail usage is down (again) due to the weather. We are thinking of a nice fall.

Olivia Huddleston ([opieh@bluevalley.net](mailto:opieh@bluevalley.net))

## Topeka Trails

### Dornwood Trail

The rains and the honeysuckle have made Dornwood particularly challenging this spring. I have worked nearly 50 hours and still have about a mile of the main trail to cut back and trim. The storm that came thorough has left some downed trees that need to be cleared. Other than that, the trail is in good condition and I expect to have it cleared and ready for polish by the end of next week.

Russ Rupp ([russ11@cox.net](mailto:russ11@cox.net))

### MacLennan Park (Cedar Crest) Trails

Trail conditions remain good despite the recent torrential rains. The trails are lopped and clear. Some repair work to the gravel trail under the tree canopy is scheduled for this fall when conditions permit.

Mike Goodwin ([goodwinmw@cox.net](mailto:goodwinmw@cox.net))

## Wilson State Park Trails

As of 20 June, I've made 35 round trips from Hays to Wilson State Park. Hate to think it, but that's almost 4,000 miles. What, might you wonder, did I do for all those trips? As those who've maintained trails well know, there's always far more to do than can ever be done -- such as mowing, trimming, spraying, re-routing, installing water management structures, de-berming, planning new routes, erecting and repairing signs, maintaining equipment, taking pictures, conferring with trail users and land managers, and maintaining the trailhead kiosk. Oh, and I usually manage to get in a bike ride too. And another bonus: recorded books in the car. I average about 2 books per month. At home, I spend several hours a week working in my home office on tasks such as record keeping, map making, writing reports, working on web pages, shopping for supplies, and planning new trail.

Recently, I submitted 4 new trail route proposals. All new trail construction must be approved by the KDWP and USACE. State Park and Corps managers and I visited a couple of the proposed sites last week, where I was able to explain the proposed routing. I expect all to be approved and this will give our volunteers and me new projects to do for the next year or so.

New construction adheres to trail building codes established by the International Mountain Biking Association (IMBA) in order to produce a natural surface trail that is ecologically sustainable ([www.imba.com/resources/trail\\_building/sustainable\\_trails.html](http://www.imba.com/resources/trail_building/sustainable_trails.html)). Design goals utilize existing natural landscape features rather than disrupt or modify same. Most of the new trail will be constructed using mechanized technology. KTC provides all equipment except an ATV, which will be provided by KDWP. Short sections will require construction with traditional hand tools.



# Trail News



April 18th featured the annual Wilson Adventure Race, with participants either running or riding all of the trail. May 1-2, Wilson State Park hosted the annual Fat Tire Festival Mountain Bike Race, with 96 registrants.

The trail now has a presence on Facebook at [www.facebook.com/pages/Switchgrass-Mountain-Bike-Trail/113807238662277](http://www.facebook.com/pages/Switchgrass-Mountain-Bike-Trail/113807238662277) or more easily just go to [www.facebook.com](http://www.facebook.com) and search for "switchgrass". We also have a Twitter account that I use to update trail conditions: [www.twitter.com/wspk](http://www.twitter.com/wspk).

Bob Nicholson (rnicholson@fhsu.edu)

## Got Mud? (Continued from page 1)

De-berming – Even well built trails sometimes develop a berm along the downhill edge of the tread due to compaction of the soil in the center of the tread. Removing the berm on the downhill edge of the trail reinstates the outslope of the tread and allows water to sheet across the trail rather than being trapped by the berm.

### What Can Trail Users and Land Managers Do?

Let the trail dry out – Most trail users are sensitive to the trail environment and adhere to the practice of leaving "no trace." Avid trail users rarely litter and often pick up trash left behind by less conscientious trail users. Yet, many well meaning trail users leave an enormous "trace" by hiking, running, riding or biking on a muddy trail. This scars the trail tread with foot prints and ruts which immediately trap water and keep it from draining from the trail. This prolongs the drying time and continues to trap water from subsequent storms until the trail damage has been repaired. Using muddy trails also promotes "trail

creep," a widening of the trail as users attempt to go around the muddy spot.

Consider The Cost - Trail users may not be aware of the enormous effort required to build or repair a trail. Most natural surface trails in Kansas have been built and are maintained by volunteers. While trail volunteers work for free, their time and effort is immensely valuable. Depending on the terrain, building one mile of trail may require hundreds of hours of design, planning and construction labor. Assuming 500 hours to build one mile of trail in moderately easy terrain, at a modest \$10 per hour, the cost (not the value) would be \$5,000 per mile. Compare this to the time it takes to damage a mile of trail by: a hiker (20 minutes), an equestrian (20 minutes), a runner (10 minutes) or a biker (5-10 minutes). A few minutes of fun in the mud can result in hundreds or thousands of dollars of damage to the trail.

Alternate Routes or Event Dates - After preparing for a race, often with the expectation of hundreds of participants, event promoters are understandably reluctant to postpone or cancel the event when wet conditions exist. Land managers can balance their desire to protect the trails and with the need to provide public access by making the "wet conditions" policy clear prior to the event. Either a rain course should be designed in advance and used when conditions warrant or alternate event dates should be prearranged and publicized. When these options fail, responsible promoters should be willing to provide labor after the event to repair any damage to the trails.

Close The Trail – One way to minimize water damage is to close the trails when they are wet. This is perhaps the most certain method to avoid damage to wet trails, however, it is not foolproof, nor is it appreciated by many trail users and event promoters. Indeed, trail users who drive many miles to a trail only to discover that it is closed may become frustrated or may ignore the Trail Closed signs and use them anyway. Some trails have so many trailheads as to make trail closure relatively unfeasible.

What can trail builders do? Build sustainable trails by using the trail building guidelines discussed here and published by organizations like the International Mountain Bicycling Association ([www.imba.com](http://www.imba.com)). What can trail users do? Remember that muddy trails will only be damaged if they are used.

Got Mud? Please help your local trail volunteers by letting the trails dry out before you run, ride, hike or bike!

Mike Goodwin  
Clinton Lake North Shore Trail Coordinator  
KTC Board Member & Treasurer

# Board Meeting Minutes

## Call to order

- The KTC Board met at Tequila's Mexican Restaurant in Topeka, Kansas, April 25, 2010.
- Board members present were Bob Nicholson, President; Mike Goodwin, Treasurer; Susan Haynes, Secretary; John Haynes; Olivia Huddleston; Doug Palen; Terry Plenert; and John Wentling. Not present: Lyle Riedy; Chris Kaegi-Stephens; Neil Taylor; and Jim Thomas.
- The meeting was called to order at 12:54 PM by President Bob Nicholson.
- Minutes: Olivia moved and Mike seconded that the minutes of the last meeting be approved. Motion carried.
- Treasurer's Report: Mike presented the financial report and stated that the form 990 was ready to file. Doug moved and Olivia seconded a motion to reinvest \$12,500 and give Mike the discretion to purchase the investment, and to keep the \$8,000 in checking for needed purchases. The motion carried. Doug moved and John H. seconded to approve the treasurer's report. The motion passed.
- Membership Summary: KTC has added four new members in 2010.
- Proposal to change title of Trail Coordinator: Bob led discussion. It was decided that no further action would be taken at this time.
- Ford County Lake trail project: John W. related that they now have ten miles of trail and equipment for further work. The trail has good local support and is starting to see use.
- Horse Thief Reservoir: John W. said that he and Bob have been asked by the HTR Benefit District to assist with trail layout there.
- Fall River Lake trail project: Terry said there are six and one-half miles on the Prairie Trail and the Badger Creek Trail will have a four and one-half mile loop. The last two miles of Badger Creek are flagged at this time.
- Purchase of maintenance supplies, such as chemicals, beyond the \$250 annual allocation to each trail's fund: The Board affirmed that needed supplies over and above the annual \$250 allowance could be purchased with Board approval. After related discussion, Doug made a motion to set up a Capital Development Fund and that we fund that account with the SVR project monies (\$7,000). Mike seconded the motion and the motion passed. Terry moved and John W. seconded that a Board member be appointed as manager of the Capital Development Project Fund to recommend projects to the Board for approval, and that Bob be assigned as the manager. Motion passed.
- Request land managers collect a per participant fee for group events on trails, to be given to KTC for maintenance: The Board said that it is not KTC's purpose to charge fees for trails; that is done by the land manager. It is best to have a good relationship with the land manager and work together to do what is best for the trail.

It was recommended that we develop a set of trail usage guidelines for event promoters.

- Election Committee: Doug, Olivia and Susan were appointed to the election committee.

## New Business

- Grant suggestion: Doug brought up the idea of using electronic eyes or similar devices to monitor trail usage. It was recommended that we check with land managers to see if this would be permitted. The trail usage monitoring could be combined with updated trail signage and website improvement for grant purposes. The Board will explore the idea more at the next meeting.
- Next meeting: Time and place to be announced.
- John H. moved and Olivia seconded that the meeting adjourn. Motion carried. The meeting adjourned at 3:17 PM.

Susan Haynes, Secretary

## Third Quarter 2010 KTC Board Meeting

The next KTC Board of Directors meeting will be held on August 22 in Salina at a location to be announced. Please check the KTC website ([www.kansastrailscouncil.org](http://www.kansastrailscouncil.org)) for further details in the coming weeks. All KTC members are welcome, and encouraged, to attend the meeting.

## Board Members

### Board Positions 1 – 6 (2010 & 2011)

- 1 - Chris Kaegi-Stephens - Valley Center
- 2 - Jim Thomas - Lyndon
- 3- Doug Palen - Glen Elder
- 4 - Olivia Huddleston - Vermillion
- 5 - Neil Taylor - Lawrence
- 6 - Susan Haynes, Secretary - Shawnee

### Board Positions 7 – 12 (2009 & 2010)

- 7 - John Wentling - Dodge City
- 8 - John Haynes - Shawnee
- 9 - Lyle Riedy, Vice President - Topeka
- 10 - Michael Goodwin, Treasurer - Topeka
- 11 - Bob Nicholson, President - Hays
- 12 - Terry Plenert - Wichita

## KANSAS TRAILS COUNCIL MEMBERSHIP FORM - 2010

I would like to: Join  Renew my Membership in  the Kansas Trails Council for Calendar Year 2010

Name \_\_\_\_\_

Street \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email: \_\_\_\_\_

NOTE: It is the KTC's policy that the above information will only be used internally by the KTC and will not be distributed to any other entity. In the interest of conserving resources (time, postage, copying, etc.) and being more environmentally friendly, the KTC newsletter is primarily distributed by email. If you prefer to receive the newsletter by regular U.S. mail, please check the box on the right and your name will be added to the newsletter mailing list.

### MEMBERSHIP DUES

AMOUNT

Lifetime Membership: (One-time payment, no annual dues)	<input type="checkbox"/>	\$100.00	
Annual Dues: <input type="checkbox"/> Individual	\$10	<input type="checkbox"/> Trails Supporter	\$101 - \$249
<input type="checkbox"/> Family	\$25	<input type="checkbox"/> Trails Patron	\$250 - \$499
<input type="checkbox"/> Affiliate	\$25	<input type="checkbox"/> KTC Sponsor	\$500+
(groups, clubs, etc.)			\$ _____

**Optional "Friend of the Trail" Contribution** (any amount is appreciated) \$ \_\_\_\_\_

Please designate the trail(s) you would like to support with your Friend of the Trail donation.

- |   |   |
|---|---|
| <input type="checkbox"/> Clinton Lake - George Latham Trail<br><input type="checkbox"/> Clinton Lake - North Shore Trail<br><input type="checkbox"/> Elk City Lake - Eagle Rock Bike Trail<br><input type="checkbox"/> Elk City Lake - Elk River Hiking Trail<br><input type="checkbox"/> Elk City Lake - Table Mound Hiking Trail<br><input type="checkbox"/> El Dorado Lake Trail<br><input type="checkbox"/> Fall River Lake Trails<br><input type="checkbox"/> Ford County State Lake Trails<br><input type="checkbox"/> Melvern Lake - Ike's Trail | <input type="checkbox"/> Perry Lake Bike Trail<br><input type="checkbox"/> Perry Lake Hiking Trail<br><input type="checkbox"/> Tuttle Creek - Carnahan Trail<br><input type="checkbox"/> Tuttle Creek - Randolph Trail<br><input type="checkbox"/> Topeka - Dornwood Park Trail<br><input type="checkbox"/> Topeka - MacLennan Park Trail<br><input type="checkbox"/> Toronto Lake Trails<br><input type="checkbox"/> Wilson Lake State Park Trails<br><input type="checkbox"/> Melvern Lake - Crooked Knee Horse Trail |
|---|---|

(Annual Dues + Friend of the Trail Contribution)      **Total Amount Enclosed**      \$ \_\_\_\_\_

KTC is a non-profit 501(c)(3) corporation. Friends of the Trail donations are used directly to maintain the selected trail(s) and are tax-deductible to the full extent allowed by law.

**Please mail to: Kansas Trails Council ■ PO Box 695 ■ Topeka, KS 66601-0695**  
 Website: [www.kansastrailscouncil.org](http://www.kansastrailscouncil.org)

12/2009

**Kansas Trails Council  
PO Box 695  
Topeka, KS 66601-0695**

## **Supporting Kansas Trails**

This is why we build trails (see photo)!



Wilson Lake – Switchgrass Trail – Boulder Canyon Section

We hope you will join us in developing more epic trails in Kansas by becoming a member of the KTC. If you have a favorite trail you would like to support, we hope you will consider making a donation to the KTC Friends of the Trail program. Your tax deductible contribution will be used solely to support the trail(s) you select. The KTC is a non-profit, 501c3 organization. We appreciate your continued support of Kansas Trails!