Early Autumn 2014

Tie Up Your Laces
And…Work!

TRAIL TENDERS' NEWS

A publication from the Trail Quality Training Team

Finger Lakes Trail Conference

Points to ponder:

- I've been around awhile. Why should I go to a Trail Management meeting this fall?
- If I inspect my section, what should I look for in order to improve it?
- Why should I bother to improve it? It's been around for 40 years and has been just fine!

Field Maintenance Manual & Past *TTNs* on Website

The FLTC's ***Field Maintenance Manual*** and past issues of the ***Trail Tenders' News*** can be found at this address: www.fingerlakestrail.org→ Members→ VolunteerTrail Workers. In the manual you'll find specs for the trail, including how wide the tread and corridor are supposed to be, proper blazing and acceptable colors you can buy locally, what signs to use where, etc. Plus there's a convenient check list you can print off and take with you. Use the search function to find issues of the *TTN* in which a specific trail management topic or idea is discussed.

Safety Manual on Website

The revised ***FLTC Safety Manual*** updates policies and practices for FLTC crews *working with* sawyers and doing benching work on hillsides. Our sawyers are well-trained, but there are now new guidelines and tips for those supporting sawyers – aka, swampers – who may not be trained sawyers themselves. **If you are going to work around a chainsaw or on a crew building tread, please review this manual.**

Plan to Attend!

Virgil and Bainbridge Area Meetings Coming Up November 8th & November 15th

Informed FLTC members, including both recreational hikers and maintainers, are key to keeping landowners and land managers enthusiastic about the trail, providing hikers with good hiking experiences, and attracting new members to the FLTC, and thereby, assuring the permanence of the Trail. **New maintainers, especially, please attend one of this year's meetings. Don't wait for next year!** We need to hear about your experiences and the problems you've encountered, and tell you about what's new or especially important for trail building and maintenance in 2015. And Trail Chairs and Regional Trail Coordinators, be sure to attend, as well, so you can get the latest info and be able to help your trail maintainers better maintain their sections.

This year, trail management meetings will be held in Virgil, for the convenience of the central-east area of the trail system, and Bainbridge, for the eastern area. But regardless of where you work or hike on the trail system, please come to one of these if you didn't make a meeting last year.

- **November 8, 10-3, at the Virgil Town Hall, 1176 Church St., Cortland, especially for those who work or host trail on FLTC Maps M15 to M22, plus O1, O2, I1, QC, MF**
- **November 15, 10-3, at the Scout House in Bainbridge, especially for those who work or host trail on FLTC Maps M23 – M33. (From I-88, head NW on NYS 206, then left (SW) on Rt. 7 So. Main St., then right on Walnut St., cross Pearl and Juliand , pass school on right, turn left on Prospect, parking & scout house will be on your left.)**

Irrespective of where you live in the state, if you work on any trail in the Finger Lakes Trail System or are just interested in working on the trail, you are invited to attend. The content for each meeting will be roughly the same, although it can be tailored to topics especially relevant to Watkins Glen-east and the Onondaga Branch, or east of Syracuse through the Catskills.

These area meetings are designed for you to get to know other trail maintainers, learn what's new in trail maintenance, and bring your ideas and suggestions (frustrations and complaints, too!) directly to members of Trail Management and the Travelin' Training Team. This is your opportunity to get your voice heard…**and pick up a few trail freebies (!!!)** while breakfasting on donuts and cider. **If there are major topics, ideas, suggestions, or questions that you want put on the table, email Lynda at ljrassoc@roadrunner.com ahead of time (*please*).**

Topics likely to be discussed at these meetings include:

- New safety rules for working around sawyers and for when benching-in (side-hilling) trail
- Identifying spots on the trail that need improvement or enhancement and figuring out what to do and how to do it
- Getting your trail improvement projects paid for and getting out of doing all the work yourself!

BRING YOUR LUNCH, YOUR QUESTIONS, AND YOUR IDEAS!

This Year's Update on Anti-Slip Methods

Over the past few years, we've experimented with methods for making the surfaces of puncheons, boardwalks and bridges less slippery, including using:

1. ***Latex Paint with Grit*** – either regular latex to which sand is added or latex paint with pre-added man-made grit;
2. ***Marine epoxy paint with man-made grit added***;
3. ***Hot dipped (HD) galvanized hardware cloth*** (½"squares);
4. ***Strips of rough asphalt shingles***;
5. ***Scuffing the surface*** of each plank using a chainsaw; and
6. ***Diamond-shaped wire mesh (metal lath)*** used to hold plaster.

Last year we *recommended against* using method #6, because people had been injured when it had been used elsewhere. This year, we are *recommending against* solution #5, because the scuffing really doesn't seem to prevent the surface from becoming slippery, so it's just wasted effort. So here's yet another solution to explore:

7. **Rough-sawn PT wood, white oak, or black locust** for the decking, without any treatment. For white oak or black locust, we suggest you see your local Mennonite saw mill.

Please see the **Early Autumn, 2012**, issue of the *Trail Tenders' News*, for an explanation and review of the first six methods. This issue is available at: www.fingerlakestrail.org → Members → Volunteer Trail Workers → *Trail Tenders' News*.

Finally, remember to **use galvanized roofing nails** if you are applying strips of asphalt shingles to your wood.

Refurbish Your Old Section to Make It Last Longer ! *NOW* !

There are still some sections of trail that are either too steep or too much along the water "fall line" or both. Unfortunately, this year's torrential rains have revealed many places where water runs down the trail, leaving an exposed bed of rocks, twigs, and leaves. Eventually, these places will erode even further, so now, **before all the leaves fall,** is a good time to check your tread carefully and flag the places where Evil Erosion will return to destroy your trail. Then **plan on repairing your trail next spring**. Following are some actions to take:

1. If the segment is running straight up the hill or across the hill at a grade greater than 15%, **re-layout the section so that it crisscrosses the hill-side** with a grade less than 15% and preferable no greater than 10%. With a

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Urgent! Refurbish Your Trail, continued

partner, use a **clinometer** to figure out where the first leg of the refurbished pathway should go in order to have the proper grade, and then physically mark the furthest point you can go across the hillside before you should switch back. Then mark the second leg, mark its end point, and continue working your way up the hillside. Once you have gotten to the top, reverse the process and tweak the route of your trail as warranted by the terrain and/or ground cover as you descend. On the descent, be sure to flag the pathway with enough "surveyor's tape" to see the line of the trail clearly. You can borrow clinometers from the FLTC office (or your trails club may have some). Be sure you've contacted your Regional Trails Coordinator and the landowner/land manager for permission *before* you start, so no one will be startled or disturbed when coming across your flagging. You must bench-in (sidehill-in) the trail, so then determine whether you can do this job yourself. **If you can't, ask your Regional Trail Coordinator or Trails Chair for help**. If the project will take a couple of days or you have several areas in your section that need reworking, you may be able to get an Alley-Cat crew to do the work. A member of the Travelin' Training Team will also consult with you on site, provide some on-site training, and even work with you if properly bribed (homemade cookies are good).

2. If the section has the proper 10% or less grade but water is still running down the tread, plan to rework the tread so that it slants *outward* at a 5% slope. The slope can be determined by jamming one end of a flat stick (such as a Pulaski handle) into the inside edge of the trail and letting it lie flat across the tread. Then hold a 24" level out from the inside of the trail so that it is level. At the 24" point, you should be able to insert a nickel between the flat handle and the level, if the outslope is ~ 5%. If it is less than 5%, water is likely to be drawn down the trail instead of across the edge. (Heaven forbid you should have an inslope, unless you have an unusually wide trail and can put in drainage ditches and then culverts under the trail to take the water to the outside edge.)

> "Having old, unimproved, eroded, or really worn segments leaves us vulnerable to aggressive mountain bike riders who tell the public land managers that they would never build trail that's as bad as ours."

If the outslope needs reworking, the first step is to make sure nothing is blocking the outer edge of the trail. In the old days, builders would sometimes put rocks or logs along the outer edge. Be sure water can run around or under such things so that it isn't trapped in the tread. If water still is running down the trail, use a Pulaski, McCleod, or hoe Mattock to scrape down the tread from the inside of the trail towards the outside. Using the technique described above, every so often, check to make sure the slope is ~5%. If you are rebuilding the

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Urgent! Refurbish Your Trail, *continued*

trail's grade so it's ~ 10% or less, put in a correct outslope at the same time. (See the *Safety Manual* for a review of tools.)

3. If you have puddles forming on relatively flat trail, see if you can put in a "**puddle drain**." According to the USFS *Trail Construction & Maintenance Notebook*, "Puddle drains" should be at least 24" wide and extend across the entire width of the tread." Dig the drain deep enough so water will run out it and the puddle will dry out. "Feather the edges of the drain into the tread so trail users don't trip. Plant rocks…(guide structures) [periodically] along the lower edge of the tread to keep traffic in the center. In a really long puddle, construct several drains at what appear to be the deepest spots." Make sure the ground is lower than the tread so the water has places to drain off. If necessary, dig drainage holes to collect the run-off.

4. If you've got a small stretch with a grade between 10% and 20% that's between two good sections that you want to keep, consider putting in one or more waterbars to channel the water to the trail's outer edge. Standing on the trail facing upward, draw a line at a **45 degree angle** outward and downward from the inner edge of the trail. Then dig a trench so that large rocks or a 6x6 can be partially buried in the trench. Rebar or stake the wood. Extend the waterbar **off** the outer edge of the trail if possible. Specific details can be found in the US Forest Service's *Trail Construction and Maintenance Notebook*, copies of which are usually available (for free) at our Fall Trail Management meetings. Be forewarned: Waterbars need frequent maintenance and are not favored by today's trail building pros.

5. Consider a "rolling grade dip," i.e., kind of a "knick" on a short dose of steroids that is very useful on **steeper** sections of trail. **A "knick"** is essentially an effective outsloped drain that can be used where the ground next to it is lower (so the water has a place to drain off to). As defined in the USFS' *Trail Construction & Maintenance Notebook*, a "knick" is a "shaved down semicircle about…10 feet long that is outsloped about 15% in the center." A knick is especially useful on relatively flat trail. **A "rolling grade dip**" is a knick with a ~ 15 foot ramp built on its downhill side. The ramp rises out of the knick at a 3% or so grade until it can return to the descending grade. Knicks and rolling grade dips require little maintenance.

More aspects of water management will be covered in the April Fools' 2015 issue of the *Trail Tenders' News*. Seriously….

Why is it Urgent to Refurbish Your Trail?

One major reason is to improve the hiking experience. This summer's drenching downpours created many new side gullies from which water spewed out and cut ravines across the trail. Muddy stretches now exist where the trail seemed dry before. In short, there are plenty of new spots that will need attention, too, and hikers abhor mud.

*A second key reason is to make your trail **sustainable**, so it will last for decades without eroding away or requiring*

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Why it's urgent to refurbish your trail, continued

'*major improvements* or work on your part.

Sustainable' is now the catch word that differentiates good trail built to *modern* standards that ensure that it will last from bad trail built to pre-1990 standards that pretty much guarantee that it will have erosion problems and be difficult to hike or at least to come home with dry boots. The embellished "head-, torso-, and-arm-less hiker" that we pass out at our Trail Management meetings captures the most basic of the modern standards.

Since the 1990's, the International Mountain Bike Association (IMBA) and its affiliates, including the Western NY Mountain Bike Association (WNYMBA) and the Greater Rochester Outdoor Cyclists (GROC), have asserted that they build their mountain bike trails to sustainable standards *and* their trails, which are single-track and built on native soil, are "multiple use" because hikers can use the mountain bike trails, too. This argument is bogus for several reasons: (a) the mountain bike riders don't include horses, atv's, or snowmobiles when they say "multiple use" and foot travel is almost always permitted on other trails, anyway, so it's hardly genuine "multiple use"; (b) standard trail etiquette for multiple use trails requires that bikes give way to people and both bikes and people give way to horses; however many bike riders, especially when riding in a group or a race, simply do not "give way" to foot-travelers and in fact routinely force walkers and runners to the side of the trail; (c) genuine multiple-use trails are hardened (e.g., with stone dust) and are made wide enough for two different kinds of users to pass each other without conflict, completely different than single-track bike trails where hikers are forced off and bike tires make ruts in the tread; (d) single-track bike trails require hikers to be constantly vigilant against the possibility of speeding mountain bikers suddenly coming up from behind, startling them, and possibly skidding and unable to stop, which clearly spoils the hiking experience.

However, IMBA's argument has proved persuasive with a couple of land managers under pressure to increase utilization of their lands, and these land managers have allowed mountain bikes on our footpath and even turned over control of the segment to a mountain bike club. In these cases, mountain bikers have pointed to *old* sections of *our trail* or sections forced to go up a hill along a fence line by the landowners as clear examples of our lack of knowledge or inability or unwillingness to build sustainable trail. We have had to explain and then show that we do, now, build good, sustainable trail. *So, a third reason, and the reason for the urgency of this, is to show land managers under pressure from IMBA and its affiliates that we do know what we're doing and we do build sustainable trail, while reminding them that much of the trail was built before modern standards came in to play and some stretches still need "refurbishing."* Although one would think we shouldn't have to do this at our age, establishing our expertise will elevate our organization and the hiking community in the eyes of our land owners and managers and help us keep our precious footpath free from intruders.

Finally, do not hesitate to contact your Trails Chair, Regional Trail Coordinator, any member of the Travelin' Training Team (see info at end of this newsletter), or Steve Catherman, VP for Trail Management (stevec@roadrunner.com) for help.

9 Reasons to Put In Puncheons

1. Puncheons are relatively cheap (~ $100 for a 10' puncheon).
2. Puncheons span wet, mucky stretches of your trail that otherwise suck off hiker's boots and/or cause users to move off the trail; thus, puncheons greatly improve the hiking experience.
3. Puncheons sit on top of the ground, so do not disturb it.
4. This means they are considered *temporary* structures.
5. This means that any required environmental assessment should be minimal.
6. This means they do not have to be ADA compliant.
7. This means approval should be expedited.
8. This means we can build them to a width and in a fashion that is best for a back country hiking trail and the sport of hiking.
9. This means they do not have to be built to a width or in such a fashion that they invite other types of users, but can, in fact, be a strategic part of your efforts to assure that the trail is kept narrow, for foot travel, only.

Please contact your RTC or Trails Chair if you have a mucky section that could be improved by simply adding puncheon.

What Style of Puncheon is Best?

I recommend a simple design that uses 2.5' 4x4's for sills and (**4**) 10- or 12-foot 4x4's for stringers, with strips of asphalt nailed to the surface [i.e., (**4**) parallel 4x4's separated by ~1", aligned parallel with the trail]. However, the optimum design depends on the terrain and the goals you want to accomplish by putting in puncheon.

- If your terrain is hummocky, so that puncheons can be perched on the hummocks while spanning the wet area, the sills do not need to be very wide, but the stringers need to be sturdy
- If your terrain is low and moist, 10'-12" wide sills help keep the puncheon "floating" on top and keep it from sinking into the mud.
- Planks across the stringers are less slippery than narrow boards or stringers running with the trail, but not as sturdy.
- Planks across the stringers invite other users onto the trail, while (4) 4x4's in parallel ~1" apart discourage other kinds of users.
- >10 foot 2"x12" boards running parallel with the trail can sag and bounce, if not supported in the middle with another sill.

Don't forget to **report landowner changes to the FLTC office (fltinfo@fingerlakestrail.org)!**

Please send questions, comments, complaints, corrections, suggestions, new information or tips about trail building or trail maintenance to: Editor/writer -- Lynda Rummel (ljrassoc@roadrunner.com); or the conscripted volunteer contributors -- Bill Coffin (wmscoffin@twcny.rr.com); Mary Coffin (mcoffin1@twcny.rr.com); Marty Howden (howser51@yahoo.com), and Irene Szabo (treeweenie@aol.com). Training (trail maintenance, design and construction) *on your section* available upon request. Want to join the "Travelin' Training Team" or contribute to the *Trail Tenders' News*? Please contact Lynda Rummel at ljrassoc@roadrunner.com. It's fun, inspiring, and you help keep the next generations getting out into the woods.

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Upcoming Regional Meetings & How to Refurbish Old Trail