



# Trail Maintenance Tasks

This document includes tasks that can be accomplished individually (once trained) as well as part of our monthly or *ad hoc* group work teams. If you have any questions, please contact the Sonoma Overlook Trail (SOT) Maintenance Chair (Roy Tennant, [roytennant@gmail.com](mailto:roytennant@gmail.com)). We have a tool shed at the Public Works yard in the Mountain Cemetery with a variety of tools. Both the SOT Chair (Jess Misuraca, [jess@vom.com](mailto:jess@vom.com)) and the SOT Maintenance Chair have keys.

## ***Tread Renewal***

Tread renewal can be an individual or group activity that smooths trail tread by removing rocks that cause danger to hikers and runners to a depth of 3-4" and filling and packing soil and/or gravel to create a smooth walking path. The goal is to eventually create a relatively smooth, 18-24" wide hiking path for the entire length of the trail.

Activities include:

- Filling holes with dirt and small gravel in the case of rocks that have already come out of the trail.
- Removing loose and/or problematic rocks with a pry bar and/or a rock-prying hand tool (both of these are available in our toolshed) and filling the holes with dirt and/or gravel.
- Reducing rocks by striking them with a pry bar or our cordless rock chisel until it's low enough to cover with soil (*rock reduction*).
- Filling any resulting divots by laying down a thin layer of soil and/or aggregate (filtered through a half-inch screen) and compacting it by stomping on it many times, or using a tamper tool (good compaction is key! There is a tamper in the toolshed). Repeat as necessary until the hole is filled.

Some things to keep in mind:

- Try to use soil taken from the immediate vicinity, as that is most likely to match the trail soil. Soils on the Overlook can vary dramatically from a red rust color to a dusky gray, so a patch can stand out like a sore thumb if you don't take soil from nearby.
- Soil that has been dug out from the trail by animals can be ideal, as it is usually nicely granulated and easy to compact.

## ***Cutting Berms***

When trails are well-used, they tend to form ditches. This prevents water from sheeting off the trail to the side, and can cause water runoff that creates flow down the trail, further eroding it. By shaving off the downside edge of the trail (the berm), we can, in certain cases, once again allow water to sheet off the trail towards the downhill side. The best tool for this is a square edged shovel, using it to shave off thin layers of the side of the trail until water can sheet off the trail on the downhill side.

## ***Creating Drainage Structures***

Creating drainage structures should only be accomplished on a group workday. There is a lot to know about building sustainable, easy-to-traverse water bars and/or armored swales. But if you see an area that you think would benefit from a new drainage structure, contact the Maintenance Chair.

## ***Maintaining Drainage Structures***

Armored swales and water bars allow water to drain across a trail and help prevent erosion. The right method depends on water flow, steepness of the trail, and orientation. These structures require periodic maintenance, cleanout, etc., often best and most easily performed after rain has fallen, or better during rain, although we also do preparatory cleanout before a big rain. Feel free to clear out any existing drainage structure. Any new drainage structure will be part of a standing monthly workday and not something performed by individual stewards.

## ***Maintaining Stairs***

SOT has a number of stairs designed to provide safe passage and reduce erosion. These stairs must be maintained to ensure they last for the long term. Primarily, this means keeping the stairs clear of loose gravel and sand, since hikers tend to grind that into the stair tread and wear it down faster. Therefore, the primary job of stair maintenance is to sweep debris off of the stairs on a regular basis (this can be accomplished quite well with a whisk broom).

## ***Cutting Back Poison Oak***

In the spring and summer, it's necessary to cut back poison oak that is infringing on the trail. It's best to get a long set of clippers so you can cut and throw aside the tendrils without touching them. It's particularly important to do this activity from late winter through spring when the poison oak is actively growing.

## ***Picking Up Trash***

Hikers sometimes leave trash behind, most frequently facial tissues. The best way to handle this is to bring along a plastic bag and gloves to pick up trash without touching it with your bare hands, or just invert the bag to pick things up.

## ***Kicking Loose Rocks Off the Trail***

Nearly every day you will see loose rocks on the trail—some quite small, but others that could turn (or break!) an ankle. Kicking these off the trail is usually quite easy and can often be accomplished mid-stride.

## ***Removing Tree Limbs and/or Small Downed Trees***

Report downed trees that cross the trail to the Maintenance Chair. Tree limbs that block or hinder passage of the trail prism may be trimmed if safe to do so. Appropriate safety gear should be used, including hard hats when overhead work is performed. Since it's also necessary to watch for hikers so work can be curtailed as they pass, overhead work should not be done with fewer than two stewards.

When trimming a tree limb, begin by cutting a third of the way through the limb from the bottom, close to the tree trunk or primary limb. Then finish the cut from the top of the limb. Contact the SOT Chair or Maintenance Chair for additional tools, including our pole chainsaw.

## ***Homeless Encampments***

Report all encampments to our Chair, Jess Misuraca, [jess@vom.com](mailto:jess@vom.com), or to the SOT Maintenance Chair Roy Tennant, [roytenant@gmail.com](mailto:roytenant@gmail.com). The clearing of homeless encampments should be approved by, and coordinated with, the Sheriff's office and Kathy King of Sonoma Overnight Support. Eviction procedures must be completed by law enforcement before clean up, and any items of value must be surrendered to the police station. When cleaning out an abandoned encampment, wear heavy gloves and stay alert for sharp or otherwise dangerous objects.

## ***Invasive Species Removal***

Italian Thistle is very much an issue along our trails. To control this invasive species, pull and toss it off trail from Fall into Winter, or pull, bag, and remove it in Spring and Summer if it has begun going to seed. Request a contractor's debris bag for this purpose from the Maintenance Chair. Bags of thistle can be dumped beside the dumpster outside of the City Yard in the cemetery (if you don't know where this is, ask the Maintenance Chair).

### **Trail maintenance may require:**

Hiking/walking on uneven ground for extended or prolonged periods of time, working outdoors in a wide range of environmental conditions: bending, stooping, squatting, dragging, gripping, pushing/pulling, climbing, carrying, lifting, digging, raking, sweeping, overhead dangers. These activities by nature carry certain inherent risks that cannot be eliminated regardless of care taken to avoid injuries. Risks include, but are not limited to, those caused by terrain, use of tools and trail building implements, facilities, temperature, weather, condition of volunteer, lack of hydration, equipment, vehicular traffic, actions of other people including, but not limited to, participants, volunteers, and acts of nature. Sonoma Overlook Trail Stewards agree to hold Sonoma Overlook Trail, all SOT Stewards, Sonoma Ecology Center and the City of Sonoma harmless from all claims in this regard. Having said this, we will work hard to keep everyone safe and healthy at every trail maintenance event, and make sure that everyone knows how to work safe.