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INTRODUCTION

The purpose of this manual is to provide guidelines for the Morris County Park Commission (MCPC) Adopt A Trail (AAT) Volunteer Program. The manual will define each volunteer role within the AAT Volunteer Program and serve as a reference guide to supplement both orientation and field training. The MCPC hopes you find this program both enjoyable and rewarding. Volunteers are the backbone to our trail community and are necessary to keep the trails safe and enjoyable for all trail users.

The MCPC would like to thank the New York/New Jersey Trail Conference (NYNJTC) for the use of their Trail Maintenance Manual as our primary resource for in depth information regarding trail maintenance procedures. The PDF version of NYNJTC Trail Maintenance Manual can be found on our website at https://www.morrisparks.net/commission/volunteer/

AAT VOLUNTEER PROGRAM OPTIONS

TRAIL WATCHERS

Role - trail users that report on specific trail conditions or trail issues, on any trail at any time of the year.

Responsibilities – report on the following conditions and/or issues:

- Tree blocking trail
- Trail asset condition (signs/kiosks, benches)
- Trail structure condition (bridges, steps, culverts etc.)
- Trail corridor issues
- Trail tread issues
- Vandalism and litter issues

Familiar with – Basic safety, trail courtesy, smartphone APP and basic trail issues.

Term – one year and renewable upon Trail Superintendent’s recommendation.

Reporting – onsite using smartphone APP. Smartphone must have GPS and camera.

Program anticipated to start Summer of 2021.

TRAIL AMBASSADORS

Role - to be MCPC’s frontline for information, education and guidance to other trail users. Ambassador’s must be friendly and outgoing. They must also be extremely familiar with the trail locations, terrain and use designations.

Responsibility – to be available onsite at MCPC’s busiest trailheads at peak hours and days to ensure that trails are enjoyed and used responsibly by all.

Familiar with - Basic safety, trail courtesy and reporting.

Term - one year and renewable upon Trail Superintendent’s recommendation.

Reporting – hours will be reported using an online fillable or printed form and submitted quarterly to Trail Superintendent.

Program anticipated to start Spring 2022 or later.
TRAIL KEEPERS

Role - perform general maintenance on assigned trails within the MCPC trail system.

Responsibility – perform general maintenance on trail corridor, trail tread and trail structures. To report on trail hazards and trail issues that are beyond their ability.

Maintenance duties include;

- Trail corridor
  - Pruning and brushing
- Trail tread
  - Drainage inspections, clearing and construction
  - Structure inspections, clearing and reporting issues
- Trail assets
  - Signage and kiosk inspections and reporting issues
  - Bench inspections and reporting issues
- Hazard reporting

Familiar with - Basic safety, trail courtesy, trail maintenance, equipment and reporting.

Term - one year and renewable upon Trail Superintendent’s recommendation.

Reporting – participant hours and work completed will be reported using an online fillable or printed form and submitted quarterly to Trail Superintendent.

Program anticipated to start Spring 2021.

TRAIL FUN SERIES

Participants will engage in a once a month trail project within the MCPC trail system. The Trail Fun Series will run on the first Saturday of each month April through November. The program will run from 9am to 1pm. Participants must sign up in advance.

Training will be done onsite as it will be project dependent.

Program anticipated to start Spring/ Summer 2021

Calendar and sign up will be online.
BASIC SAFETY

The Morris County Park Commission is concerned with the safety and well-being of our Adopt A Trail (AAT) Volunteers. Safety is our number one priority.

Know emergency procedures such as your work location, the location of the nearest emergency facility, the closest phone, and how to quickly summon the police, ambulance or staff member.

EMERGENCY INFORMATION

Calling for help is often the MOST IMPORTANT action you can take to help yourself and/or a person in need of aid.

- DIAL 911 FOR EMERGENCY
- (973) 326-7654 FOR THE 24-HOUR PARK POLICE EMERGENCY NUMBER. Use this number if lost or to report unauthorized activities or other non-emergencies.

When you speak to the 911 dispatcher or Park Police, the caller should:

- Indicate the type of problem (fire, heart attack, etc.).
- Identify yourself.
- Identify the specific location within the park using nearest trail intersection.
- Identify the best access or entry point.

For your Personal Protection

Know and be alert to toxic plants, such as poison ivy/oak. Care must be taken to avoid rabid animals, ticks, bees, wasps, and snakes. Perfume or fragrance is not advised as it may attract insects. Volunteers are encouraged to perform a tick check after any outing in the park.

Proper Dress

Start by dressing properly. Your clothing is your most basic form of protection against injury and annoying pests. Sturdy shoes are necessary for your safety and protection. Sandals or open-toed shoes are not acceptable. Long sleeved shirts and pants tucked into socks will help protect you from abrasions and insect bites. Light colored clothing is best, making insects easier to spot and tends to keep the skin cooler in hot weather. Insect/tick repellent and a hat will help provide additional protection.

When handling tools, wear gloves and eye protection. Eye protection can be safety glasses or regular eye glasses.

Safety Tips for the Trail

- Plan your route.
- Take a buddy. If alone, let someone know your plan.
- Pace yourself. If you cannot safely accomplish a specific task contact the Trail Superintendent. If in doubt, don’t do it, report it.
- Never confront persons engaging in illegal activities. Contact Park Police: (973) 326-7654.

Recommended items to take with you out on the trail:

- Water and food
- Cell phone
- Bug spray
- Sun screen
- First aid kit
- Map
- Trash bags
- Flash light


**TRAIL COURTESY**

More information coming soon.

**BASIC TRAIL ISSUES**

**Corridor Issues**

The trail corridor is the space that includes the trail tread and the area above and to the sides of the trail tread (see Trail Illustration and Definitions in this manual). MCPC trails range in type and managed use, therefore corridor dimensions will vary throughout the MCPC trail system.

Common issues that arise on most trail corridors are due to over or under utilization and a lack of maintenance.

Common problems include:

- Tree blocking trail
- Litter
- Over growth of vegetation
- Old or missing blazes
- Poor condition of signs, kiosks and benches
- Vandalism

**Tread Issues**

The trail tread is the portion of the corridor that the user travels upon. The tread surface material and width will vary depending on the trail type and managed use. MCPC has trails that are asphalt, gravel, dirt and mulch, with tread structures that could be wood, concrete, or metal.

Common issues that arise are due to poor design and lack of maintenance.

Common problems include:

- Mud or standing water
- Surface erosion
- Poor condition of tread structures (bridges, boardwalks and puncheons)

A trail Watcher, Keeper and Ambassador should report any of these issues to the Trail Superintendent as soon as possible. If the issues can be resolved within the volunteer’s ability and comfort level proceed with using basic safety advice and report accordingly.
REPORTING


IMPORTANCE OF REPORTING

The MCPC must have current and reliable information for trail users and be able to quickly respond to dangerous trail conditions or blockages. Thus, accurate reporting is essential. Besides reporting work performed and any problems observed, accurately recording and reporting your hours spent both on the trail and those spent traveling to and from it is crucial. This allows the Trail Superintendent to track the level of maintenance trails are receiving and to know which trails are in fact being maintained. In addition, aggregate volunteer hours are used to document the extent of our activities, which is particularly important for obtaining grants, public and private financial support, and insurance coverage.

REGULAR REPORTING

This refers to the current practice of filing formal reports. Currently these must be submitted four times per year: by March 20, June 20, September 20 and December 20. These reports include noting general trail conditions, problems encountered, the type of work you performed, the date when you performed it, the amount of time you spent volunteering (including travel), any pending work, and any potential longer-term issues that may require attention. You should keep a trail maintenance diary or log in which you record dates, locations, conditions, work done, time spent, and work pending. Such a document will help refresh your memory when it comes time to complete your formal trail reports. Reporting forms will be provided to you by the Trail Superintendent. You may also find them online at https://www.morrisparks.net/commission/volunteer/. The Trail Superintendent will keep you updated if the reporting procedure changes.

PROBLEM REPORTING

Assess the trail for possible user safety issues, such as blowdowns, confusing or missing blazes, lose or broken components of bridges or other structures, persistent water drainage issues, etc. If you cannot resolve these problems yourself, report these issues to the Trail Superintendent as soon as possible after your trail visit. Take photos of safety issues and email them along with their location information to the Trail Superintendent. If GPS tracking is enabled on your smartphone, then the photo will include the exact location of the problem, but a description of where the problem is also helpful.

SMART PHONE APP

Coming soon.
**Clearing Height:** The minimum clearing height determined to be appropriate to accommodate the Managed Uses of a trail.

**Clearing Width:** The minimum clearing width determined to be appropriate to accommodate the Managed Uses of a trail.

**Tread Width:** The tread width determined to be appropriate to accommodate the Managed Uses of a trail.

<table>
<thead>
<tr>
<th>Trail Type</th>
<th>Managed Use</th>
<th>Minimum Clearing Height</th>
<th>Minimum Clearing Width</th>
<th>Minimum Tread Width</th>
</tr>
</thead>
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<tr>
<td>Hiking Only</td>
<td>Pedestrian</td>
<td>6 feet</td>
<td>3 feet</td>
<td>1 foot</td>
</tr>
<tr>
<td>Single Track</td>
<td>Pedestrian &amp; Non-Motorized Bikes</td>
<td>6 feet</td>
<td>3 feet</td>
<td>1 foot</td>
</tr>
<tr>
<td>Multi-Use</td>
<td>Pedestrian, Non-Motorized Bikes &amp; Equestrian</td>
<td>10 feet</td>
<td>5 feet</td>
<td>2 feet</td>
</tr>
<tr>
<td>Shared Use Path</td>
<td>Pedestrian, Non-Motorized Bikes &amp; Equestrian</td>
<td>10 feet</td>
<td>12 feet</td>
<td>8 feet</td>
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*Managed Use indicated in the above chart does not include winter recreation. Please check the MCPC website for authorized winter recreation in specific parks.

MCPC trails vary in trail type and managed use throughout the entire trail system. The Trail Superintendent will advise you on the specific trail type and managed use for your adopted trail section.

Your trail section will vary in tread width, clearing height and clearing width, be sure that your entire trail section meets the minimum standards in the chart above.
INSPECTION


Every trip is an inspection trip, in addition to the clearing or brushing work you may have planned, be prepared to take notes on anything that needs reporting, either on a smartphone or with paper, pencil, and a map. Document problems with a photo; smartphones are great for this. It is very helpful when photos are geotagged which can be enabled by turning on your GPS/location services on your device. If your photos are not geotagged, be sure to write down the location of the problem in your notes.

HOW OFTEN AND WHEN

As indicated in the Annual Cycle diagram:

- Inspect as soon as possible in the spring and after the leaves are down in the fall.
- Develop a plan and schedule to return to the trail to take care of problems that you are not able to resolve on your visit. If you are working alone, you may find that it is difficult to lop, clear blowdowns, blaze, and pick up litter all on one trip. Gradually, you will develop a method that suits you. For a start, carry your loppers, folding or bow saw, and litter bag on every trip.
- Inspect in mid-summer, when trimming of spring growth may be needed, especially if your trail has sections of high grass, brambles, or heavy undergrowth. Trails open to the sun will require more maintenance than those in mature forests with high canopies. Paths through open meadows and swamps need late summer clearing. Check for blazes obscured by foliage.
- Inspect more frequently if heavy use and litter are problems.
- Inspect as soon as possible after severe storms, fires, or periods of heavy use.

Even though you may find little or no clearing or litter pick-up to perform on your regular inspection, you are still performing an invaluable service by monitoring trail conditions.

Take a fresh, objective look at the trail each time you venture out. Periodically inspect your trail section from the opposite direction to get a different perspective and to check on the condition of the blazes, which may be quite different in each direction. Use the standards given in this manual, as well as your common sense, to judge the physical condition and aesthetic appeal of your trail. Always be alert for ways to improve the trail.

SPECIAL SITUATIONS

Co-aligned trails: Separate trails occasionally merge and follow the same route before diverging again. Through the Trail Superintendent, contact the other maintainer(s) of a joint trail to establish a mutually agreeable system for inspecting and maintaining such sections.

Select the equipment you will need for a specific outing from this list (see illustrations below). You are expected to provide all equipment that you bring on a maintenance trip.

**Basic hiking gear**: Pack for carrying gear; lunch or snacks and water as appropriate; sunscreen and bug spray; appropriate footwear and clothing for the weather.

**Work gloves**: Should have at least a leather palm for comfort and durability.

**Eye protection**: Safety glasses or goggles preferred; ordinary eyeglasses are acceptable.

**Individual first-aid kit**: [https://www.morrisparks.net/commission/volunteer/](https://www.morrisparks.net/commission/volunteer/)

**Hand pruning shears**: Keep them handy for thin branches, stalks, and vines.

![Bypass Pruner](image1.png)

![Anvil Pruner](image2.png)

**Long-handled lopping shears**: Pruning shears, or “loppers”, for limbs over 1/2 - inch diameter; 24-inch handles are lighter and suitable for most tasks; 30-inch handles provide more leverage and require less bending.

**Hand saw**: A hand saw is used for cutting away branches that intrude onto the trail or for small blowdowns. These come in a variety of forms. Folding saws, where the blade folds into the handle, are very popular because they are so compact. Fixed handle and bow saws may also be used. They can typically handle somewhat larger blowdowns than the folding saw, but if you use these be sure to have a guard for saw teeth to prevent injuries. Depending on the hand saw, you can generally handle branches or logs of up to 6 to 10 inches in diameter.

![Bow Saw](image3.png)

![Fixed Handle Pruning Saw](image4.png)

![Folding Saw](image5.png)
**Hedge clippers:** Hand-held hedge clippers are good for clearing away thick vegetation that is intruding onto the trail.

**Weed whip:** Long-handled, scythe-like tool with 12-inch serrated blade, to be swung through vegetation at ground level; before using, replace nuts with locknuts, or use Loctite or a similar compound. You must always keep two hands firmly on the handle and swing rhythmically back and forth. Strong swings will prevent the blade from bouncing off springy growth. Leave plenty of space between yourself and other people while using this tool.

**Trenching shovel or mini pick:** These compact tools easily fit within a backpack and are used for cleaning waterbars.

**Wedge:** A small plastic wedge is often useful for keeping the two sides of a trunk or branch apart while you are sawing through it, or for propping a branch up off the ground so you can saw under it.

**Hatchet:** Good for starting or finishing saw cuts.

Chainsaws and power tools are not permitted.

**Plastic bags:** Used for litter; heavy duty is best.

Axes are not generally recommended for routine trail maintenance; however, you may use one if you are experienced and skilled in its use. If you are unsure, consult the Trail Superintendent.

Keep your tools in good condition; cutting tools are more effective, less tiring, and much safer if they are kept sharp.
TRAIL MAINTENANCE


CORRIDOR MAINTENANCE

Vegetation: Typically leaves are not raked off the trail because leaves help prevent rain spatter erosion. Cut all branches as close as possible to the trunk. Cut all main stems, trunks and roots as close as possible to the ground. If possible, completely remove trunks from the treadway to eliminate tripping hazards. If a small sapling is growing at the immediate edge of the trail, cut it off at ground level so that no stub protrudes. If a branch originates from a tree a step or two off the trail, step off the trail and cut the branch off next to the trunk.

Proper Pruning: Branches cut some distance from the trunk, and trunks cut some distance above the ground, are safety hazards to the user. Branches that stick out can poke eyes and hook user’s clothing or backpacks. Properly cut branches and trunks can limit the growth of suckers or side branches, which eventually multiply the maintainer’s work. At first, it takes some steeling of the will to cut laurel, rhododendron, hemlock and other live growth, but if the trail is to exist, the clearing must be done. Throw all clippings and cuttings off the trail—with the cut ends away from the trail—and out of sight if possible.
Blowdowns: Blowdowns are full trees or large branches that fall along or across the trail. Because they block the trail, they are a safety issue for both the user and the keeper. They also provide a path for wildfire to jump across the trail. For both trail user safety and fire management reasons, blowdowns should be cleared from our trails. **Do NOT use a chainsaw to clear blowdowns unless you are a MCPC employee and accompanied by a helper (called a swamper).**

The role of the trail keeper in clearing blowdowns depends on the situation. A keeper who discovers a blowdown should (1) note its location (GPS coordinates preferred), and (2) determine who should address the blowdown. Some blowdowns can be cleared immediately by the keeper, while others are too large or not safe to do so; in these latter instances, the Trail Superintendent or MCPC employee should be called in to do the clearing work.

You should report to or seek help from the Trail Superintendent when you encounter the following problems:

- **Too big:** A keeper carrying an approximately 14-inch pruning saw should be able to clear most blowdowns up to 4 to 8 inches in diameter, depending on your saw and ability level, provided there are no other safety issues. Anything too large to safely clear with hand tools should be reported to the Trail Superintendent.

- **Saw binding:** One side of a blowdown will be under tension and the other under compression (see illustrations). Cuts should be made on the tension side of the blowdown. If you are unsure which side is in tension or cannot safely access the tension side with your saw, you may find your saw beginning to bind. If your saw binds, try cutting on the other side. If that doesn’t work, walk away and report the situation to the Trail Superintendent.
• **Spring poles**: In some cases, a tree or branch may be bent over severely yet retain its elasticity and be ready to “spring” back to an upright position; see illustration. These instances are dangerous and should only be handled with extreme caution. Gentle tugging from the top branches may release them if you can find a safe place to stand out of the path of the release. Otherwise, it is OK to walk away and report the situation to the Trail Superintendent.

![Spring pole](image)

• **Leaners**: Trees that have partially fallen and are leaning on other trees (see illustration) are unsafe to remove. Leave these in place until they fall all the way to the ground.

• **Overhanging branches ("widowmakers"):** You may also encounter large dangling limbs over the trail that may fall at any time. Keepers should make no attempt at removing these, i.e. don’t pull on them even if you can reach some of the branches. Report such hazards immediately so that they can be taken care of promptly.

When you make the decision to report a blowdown to the Trail Superintendent, consider that it may be some time until an MCPC employee can reach the site to clear the issue. Depending on how blocked the trail is, you may need to clear or flag a temporary alternate route around the blowdown to keep the trail open and safe for trail users.

If you decide to handle the blowdown on your own:

• Be sure to wear appropriate safety gear.
• Check your work site for safety, including slope, escape route, ice, snow, or mud, and potential spring poles or widowmakers. Exercise your walk away option if you encounter safety issues.
• Be aware of other people. If you are with a group, please be sure your companions stay a safe distance away unless they are directly assisting you under your direction. Also, be aware of trail users–do not continue working when people are passing by and be prepared to ask them to pause or direct them to a safe route around your work site.
• Study the tree and make a plan for cutting before beginning work:
  - Clear space around work area of tripping hazards and be sure you have good footing and an escape path.
  - Cut the limbs from the tree so the trunk can be moved when cut.
  - All fallen trees have compression and tension issues which will bind and trap your saw if not understood and handled properly. Walk away if you don’t understand where the compression and tension are. Whether the compression is on the top or bottom depends on where the ends are supported, e.g. if supported at both ends and you are cutting in the middle, the compression is on
the top (see illustrations). If one end is free, the compression is on the bottom. Cuts should generally be made on the tension side, clearance permitting, and if the saw cut (kerf) is opening up, keep going. If it is not opening, you may have guessed wrong and should start from the other side.

- Alternatively, you may be able place a wedge or small branch under the tree to the side of the cut to help keep the cut open as you continue cutting down. Wedges can also be placed in the cut to keep it open as you continue sawing. Another technique is to cut a V with your saw and then use a small hand axe to finish the cut.
- Cut logs are heavy. Squat and lift with your legs. Do not bend over and lift with your back. If too heavy to move, cut it into smaller pieces or come back another day with help.

**Rocks:** Over time, rocks in the treadway loosen or fall from the edges into the trail and become a tripping hazard. Move them out of the treadway, or request assistance if the rocks are larger than you can handle. If you remove a large buried rock, be sure to fill in the hole with dirt.

**Broken branches:** One form of natural litter is broken branches. These should be dragged into the woods at the first convenient place, butt end away from the trail. With a little practice, many of these can be kicked off the trail or flicked with a hiking pole without losing your pace.

**Fire rings:** Unauthorized circles of stone and ashes should be destroyed by heaving the stones into the woods in different directions and sweeping away the ashes. If possible, cover the area with leaves and sticks. Removing all traces of the fire ring discourages repeated use of the area. Make a special effort to discourage all fire rings in hemlock groves, where fire will travel quickly along the flammable surface and the underground roots.

**Litter:** In some areas, litter is the bane of the trail maintainer. You should be prepared to pick up some litter on every visit. The best time to do a major cleanup is in late summer, when litter is not yet obscured by fallen leaves. Pick up the litter using heavy work gloves and carry it out in plastic bags.

Do not leave litter at the trailhead. Place it where trash will be picked up or bring it home for neighborhood pickup. If you have an unusually large amount of litter or large items that you cannot handle alone, contact the Trail Superintendent about organizing a cleanup day or asking the land manager to pick it up.
TRAIL BLAZING


It is important to have well-blazed trails in order to:

- Help prevent users from getting lost.
- Help keep users on the trail to minimize the environmental impact of users.

A rule of thumb is that on a well-blazed trail, the next blaze should always be clearly visible to the user. The trail should be blazed in both travel directions.

The Morris County Park Commission does not require volunteers to blaze their segment of trail. If the volunteer is interested in learning more about proper trail blazing please contact the Trail Superintendent for instruction.

TREADWAY MAINTENANCE

Ideally, the treadway should be firm, and dry. Treadway problems that keepers frequently encounter include:

- Soil compaction from overuse, leading to cupping of the trail and consequent water erosion.
- Deterioration of sidehill trails from natural sliding and wearing of the outer edges.
- Widening of routes through swampy areas and around obstacles as users choose the path of least resistance.
- Shortcuts that cut through switchbacks
- Alternate “walk-around” paths that bypass trail structures such as waterbars, checkdams, or rock steps.
- Wet areas on the trail

If you observe such conditions on your trail and are unsure how to resolve them or are unable to do so, report them to the Trail Superintendent.

The structures and techniques described in this section are frequently used in constructing trails and addressing treadway problems. They are described here so you can recognize them, maintain them properly, and determine when they need repair. These structures are usually built by trail crews rather than individual keepers. If you want to construct these structures, be sure you know how to construct them properly. You are also encouraged to join a Trail Fun Series work day to learn these techniques or to seek advice from the Trail Superintendent. Trail Fun Series events can be found on MCPC website https://www.morrisparks.net/commission/volunteer/

Waterbars: One choice for erosion control on steep, compacted slopes is a log with a minimum diameter of 6 to 8 inches, half of which is set below the surface, placed at a 45-degree angle across the trail. The downhill side of the log should extend completely off the treadway, so that water coursing down a cupped trail will flow off the route and not along it. The steeper the slope, the more waterbars are needed. An alternative to using a log is a tight line of stones embedded in the treadway at the proper angle.
Waterbars require maintenance on each trip if they are to be effective (see illustration). A waterbar that is not maintained for a length of time may become filled with sediment that will need to be excavated to restore proper function. When visiting your trail, check that waterbars are clear of debris on the uphill side. You can often use your boot, a small hand shovel, or a mini pickaxe to clear debris from behind the waterbar and restore the original trench depth. The outlet off the trail should be made clear to ensure free-flowing runoff. Check that the reinforcements below the waterbar, either rocks or metal stakes, are in good condition. Adjust or replace those if possible, otherwise report the damaged waterbar to the Trail Superintendent.

Culverts: Culverts are round (sometimes rectangular) pipes under the trail tread. A culvert allows water to flow uninterrupted under the trail tread. Keep the culvert clear of debris on both sides of the trail so that water passes through the culvert rather than spilling onto the trail.
Checkdams: Right-angled waterbars are checkdams intended to hold back soil. These are used in areas which show severe gullying. Rocks or staked logs may be placed across the trail at right angles to slowly catch earth washing down the trail and rebuild the path back up to its original height. Do not clear checkdams. Take notes on the conditions of checkdams along your section. Report any problems, such as rotting or missing wood, on your trail report. Loose rocks should be placed to the side of the trail, so they are not a hazard to users, and possibly reinstalled later.

Waterbars and checkdams built with rock will last much longer than those built with timber, but they require specialized skills to construct. This work may be best suited for a trail construction crew. Joining a trail crew when repairing problems on your section is encouraged, and trail crews should notify maintainers and invite them along when working on a section.

Drainage dips: Drainage dips are excavated into the trail to convey water off the trail. This is the preferred technique to get water off an existing trail. This technique will only work if the landscape on one side of the trail is lower than the trail tread. A drainage dip has two design goals. The first is to get the water off an existing trail and the second is to build it long enough that the trail user does not know it's there (See illustration below). The drainage dip should be cleared of anything blocking the flow of water off the trail.
**Sidehill restoration:** If a sidehill trail gets compacted and cupped from overuse, erosion from water will accelerate, leaving an unsightly gully. Reshape the trail by removing dirt from the outer edge and dispersing it downhill. Rocks placed along the outer edges at intervals will direct users toward the center of the trail and discourage excessive wearing of the edge. The trail should be slightly out sloped so water runs off it and not along it.

**Switchback shortcuts:** Users sometimes cut across switchbacks to shorten their route, which leads to severe erosion. Discourage shortcuts by blocking them with cuttings, logs, or rocks. Pay special attention to blazes in this area and make using the switchback the most attractive route. This applies similarly to any place where users are bypassing the trail and causing erosion, such as alongside steps.

**Swampy areas:** Users will naturally try to avoid mucky sections of trail by walking around them, resulting in ever-wider swamps. It may be possible to relieve wet conditions by digging a ditch 1 foot wide and 1 foot deep to direct water to another spot. If you bring along a simple hand mattock, or a small garden hoe, you can sometimes dig a sufficient ditch to alleviate minor issues and dry out the trail. If not, place flat-topped stepping stones in the boggy area. Larger spots will require construction of log walkways or stepping stones. Take notes and pictures of the area and report them to the Trail Superintendent.

**Bridges:** These are major construction jobs. Bridges should be checked on each trip for broken decking or other obvious problems. In most cases, you should notify the Trail Superintendent of problems and the trail crew will make repairs. You may make minor repairs if you are able to do so, but you should report them immediately to the Trail Superintendent since they may be indicative of more serious problems with the bridge.

**Puncheon/Boardwalk:** These are “bog” bridges over wetland and need the same checking as bridges (above). Puncheon are long boards parallel to the trail on top of support boards called sleepers. Boardwalks are short boards perpendicular to the trail, like planking on bridges, on stringers, which are sometimes on sleepers. The sleepers tend to sink into the wetland and may need rocks or scrap wood put under them to re-level. Boardwalks sometimes have a handrail.

**Steps:** Check steps for signs of deterioration or damage. On wooden structures, inspect wood for rot. On stone steps, check for loose or missing rocks. Repair what you can, and report problems to the Trail Superintendent. If possible, remove leaves and loose gravel from stone surfaces such as staircases to help prevent slipping. If you see water accumulating on a stone step, report it to the Trail Superintendent since the step may need resetting to make it more level.

**Relocations:** Sometimes trail problems are best solved by relocating a section of the trail. Options to improve the current trail, such as placing stepping stones in wet areas, should be considered before a relocation is considered. All relocations require approval by the Trail Superintendent. Keepers should discuss proposed relocations with the Trail Superintendent to determine the approval process for a particular trail or park.
Trailhead and parking area: Report any problems noticed in parking areas to the Trail Superintendent. Examples include large litter problems, damage to trail kiosks and signage, and access issues.

INCOMPATIBLE USES


Encroachment: Trails on private land are most subject to this danger, usually in the form of building construction. Trails may also be affected by power and gas line construction, dumps, lumbering, and other incompatible activities. Should you discover that the trail is in danger of being obliterated (the appearance of surveyor’s stakes is an early clue), immediately notify the Trail Superintendent.

Vehicle use: Motorized, off-road vehicles are not permitted on MCPC trails, except on sections where the trail is on a public road. Large rocks or posts at trailheads may discourage off-road vehicles. If you observe an off-road vehicle on the trail, do not confront the operator, but try to get a license number or other identifying feature and promptly report the incident to the Morris County Park Police (973-326-7654). Afterward, notify the Trail Superintendent and the land manager. Take notes on areas that motorized vehicles are approaching the trail. This information will help the MCPC address the issue.

Bicycles and horses: Bikes and horses are allowed on some, but not all trails. Understand what the rules are for your trail, the Trail Superintendent can explain them to you. If you see uses that are not permitted on your trail, don't get into a confrontation with the user, but report it to the Trail Superintendent.

Illegal wood cutting: Do not confront illegal wood-cutters, but try to get a license plate number and immediately report the incident to the Park Police (973-326-7654). Afterward, notify the Trail Superintendent.

Hunting: As part of the MCPC’s White-tailed Deer Management Program, bow and firearm hunting may be permitted in some parks. Hunters must hold a special access permit issued by the MCPC and abide by strictly enforced rules and regulations. Hunting across trails is strictly prohibited. More information about the MCPC’s Deer Management Program, including the annual hunting schedule and maps of hunting areas, can be found at www.morrisparks.net or you can contact the Natural Resources Office at 973-285-6552.

Most hunters avoid trails and are rarely seen by park users. MCPC hunters may not set up a tree stand within 50 feet of a blazed trail though most choose to be much further away. All tree stands must be labeled with a permit number. Never confront a hunter but if you encounter a situation that does not conform the rules and regulations of the Deer Management Program, immediately report the incident to the Trail Superintendent and the Park Police. If your park does permit hunting, it is strongly advised to wear brightly colored clothing, such as “blaze” orange, during the hunting season to make yourself more visible to hunters. If your park allows firearm hunting, please be aware that there may be park and trail closures during the season, please see the website for the schedule.

Unauthorized trails: Should you discover a marked or unmarked trail that you suspect has not been authorized by the MCPC, you should generally take no immediate action but report your findings to the Trail Superintendent as soon as possible.

Graffiti and vandalism: These should be reported to the Trail Superintendent immediately. Take notes and pictures to document damage. Photographing identifying symbols, such as hashtags and account names (@ symbols), could possibly be used by authorities. Upon notice from the Trail Superintendent, please help to remove graffiti as soon as possible to discourage more from occurring.
INJURY AND INSURANCE PROTOCOL

While the Morris County Park Commission (MCPC) makes every effort to emphasize and support safety, the nature of the work may result in accidents and/or injuries. Before starting work, each individual should know what steps to take in the case of an injury. All referenced forms can be found at https://www.morrisparks.net/commission/volunteer/

A volunteer’s personal medical insurance is their primary insurance. Limited additional insurance coverage from the MCPC is available if needed. If the volunteer does not maintain medical or dental insurance, he/she will be required to sign a “Lack of Medical/Dental Coverage Affidavit.” The MCPC insurance is secondary insurance and may cover expenses not reimbursed by the volunteer’s personal health insurance provider.

Steps to Follow in the Case of an Injury

1. Assess the situation and risk. Call 911 if necessary.

2. Administer first aid and care within the scope of your ability and training. The person with the highest level of first-aid training should take charge of administering care.

3. If the injury is serious, seek professional medical attention immediately.

4. Notify the injured person’s emergency contact if necessary.

5. If the injured individual refuses care, they must check NO under “I Wish Medical Treatment” on the Accident Report Form and sign if they are deemed to show no evidence of an altered state of consciousness that impairs judgment.

6. Volunteers: Limited insurance coverage is available if needed (see above).

7. Report the injury to the MCPC Trail Superintendent and file an Accident Report within 24 hours or the next available business day, even if medical treatment is not sought. The Accident Report has a section to be filled out by the Department Head or Supervisor in charge.

REFERENCES

Special thanks to the New York-New Jersey Trail Conference for allowing Morris County Park Commission to use specific material from their Trail Maintenance Manual, 8th Edition.