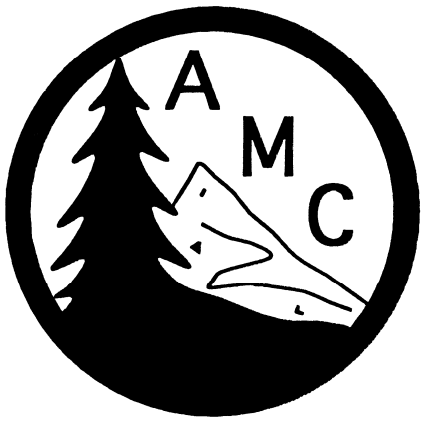
AMC TRAIL ADOPTER'S HANDBOOK

Appalachian Mountain Club

White Mountain Adopt-A-Trail Program



PREFACE

Welcome to the AMC Adopt-A-Trail Program and thank you for volunteering for this important and rewarding service. This Handbook is designed as a guide to the program for AMC Adopters. It provides you with the essential information about how to maintain your trail and the resources available to you. The Handbook states the policies and procedures of the program, describes your responsibilities, and informs you on how to obtain training, lodging, meals, and tools. Basic information is provided on trail maintenance, including the standards employed by the AMC. The first edition of the Handbook appeared in 1994 as a volunteer initiative. It was based on sources including the AMC's Complete Guide to Trail Building and Maintenance, Appalachian Trail Conference trail maintenance guides, Green Mountain Club guide, and publications of the Forest Service and State of New Hampshire. Contributions and suggestions were made by Dave Hardy then Trails Committee chair, Carl Demrow then AMC Director of Trails, Bob and Leah Devine, Laura and Guy Waterman, Steven H. Smith, Carl Gebhardt US Forest Service, Andrew Norkin present White Mountain Trails Manager, Stephen Crowe, and Scott Monroe present Trails Committee chair. Thanks are also due to many other members of past and present trails staff and White Mountain trail maintainers and volunteers who made helpful suggestions. The AMC Trails Department staff members provided the information on AMC policies regarding the program and facilities and Terry Robinson, Cristin Preisendorfer, and Alex DeLucia provided helpful editing for the major revisions in the eighth edition. Thomas L. Lentz was the Mount Washington Region Leader from 1993 to 2003 and Adopter for the Glen Boulder Trail for the AMC and Adopter of the upper Tuckerman Ravine Trail for the Forest Service.

Handbook prepared by Thomas L. Lentz

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Reservations: 603-466-2727

Trail and Weather info: 603-466-2725

Camp Dodge/Camp Dodge Coordinator: 603-466-3301. For reservations (meals and lodging).

White Mountain National Forest, Laconia, NH 03247: 603-528-8721; TTY/TDD 603-528-8722

Forest Service Ranger Districts

Ammonoosuc, Bethlehem, NH: 603-869-2626; TTY/TDD 603-869-3104

Androscoggin Ranger Station, Gorham, NH: 603-466-2713; TTY/TDD FAX 603-466-2856

Pemigewasset Ranger Station, Plymouth, NH: 603-536-1310

Saco Ranger Station, Conway, NH: 603-447-5448; TTY/TDD 603-447-1989
Visitor Information Centers
Ammonoosuc, Bethlehem, NH: 603-869-2626
Evans Notch, Bethel, ME: 207-824-2134

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Bob Spoerl, Trails Program Specialist, New Hampshire Division of Parks and Recreation, 172 Pembroke Rd., P. O. Box 856, Concord, NH 03302-0856. Phone: 603-271-3556

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NH State Police: 1-800-525-5555

ME State Police: 1-800-482-0730

Hospitals
Androscoggin Valley Hospital, Berlin, NH, 1-603-752-2202
Memorial Hospital, North Conway, NH, 1-603-356-5461
Littleton Regional Hospital, Littleton, NH, 1-800-464-7731
Rumford Community Hospital, Rumford, ME, 1-888-869-3101
Bethel Family Hospital (M-F 8-5 PM, Sat 8-12 noon, physician on call 24 hours), 1-207-824-2193

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THE AMC ADOPT-A-TRAIL PROGRAM

The Appalachian Mountain Club (AMC), the United States Forest Service (USFS), State of New Hampshire, Maine Bureau of Public Lands, and other trail clubs and organizations cooperatively maintain the almost 1,500 miles of trails in the White Mountains. The Adopt-A-Trail Program provides the opportunity for volunteers to perform basic maintenance on trails in the White Mountain National Forest. The Adopter performs an essential role in maintaining trails. Without Adopters and other volunteers, many trails would be in poorer condition. The AMC began the Adopt-A-Trail Program in 1980 with 15 Adopters. The program has steadily grown and presently there are over 150 Adopters maintaining most of the AMC's 350 miles of trails in 198 sections in the White Mountains. Adopters may consist of individuals, families, or groups and organizations such as clubs, camps, scouts, AMC chapters, and others. Basic training in trail maintenance is provided regularly through workshops and skills sessions as described later in this Handbook.

Adopters take on the responsibility for performing the basic maintenance on the trails for a variety of reasons. Some find this a way of "paying back" for the good experiences they have had hiking in the White Mountains. Many Adopters have hiked most trails in the White Mountains and adopt a trail as a new and different challenge. Some enjoy the interactions with hikers and other volunteers. Others find regular work on a trail to be an excellent way of staying physically fit. Most significantly, there is a sense of accomplishment and satisfaction in maintaining a mountain trail. If you would like to adopt an AMC trail, request an Adopt-A-Trail application from AMC Trails, P. O. Box 298, Gorham, NH 03581. If you are interested in working on a Forest Service trail, contact the Ranger District in which the trail is located. USFS trails are listed in Appendix D.

HISTORY OF HIKING AND TRAILS IN THE WHITE MOUNTAINS

In order to put your trail maintenance efforts into perspective, a brief history of trails in the White Mountains is provided here. Darby Field first climbed Mt. Washington in 1642, but there were almost no visits to the mountains for another 150 years. Mountains were considered daunting and terrible and few had the time or inclination to visit them. Then, in 1784, Jeremy Belknap led a scientific expedition to Mt. Washington, which he named. Descriptions of this trip were published and created interest in the White Mountains. The first visitors were mostly scientists, botanists, authors, artists, adventurers, and academicians. They came on foot or horses and stayed at the houses of local settlers in the region. The most famous of the early residents were the Crawfords. Visitors became numerous enough that it was decided to cut a trail to the summit of Mt. Washington. This was the Crawford Path put in by Abel and Ethan Allen Crawford in 1819. Visitors continued to increase and in 1828 the first building solely for the accommodation of travelers was built. This was the Notch House which was located in Crawford Notch a little south of the Highland Center.

Around the 1850s, the railroads reached the towns of Littleton, Conway, and Gorham. The railroads greatly increased accessibility to the mountains and there was a great increase in vacationers beginning in the 1850s. Great hotels, some with hundreds of rooms, were built. These included the Crawford House in Crawford Notch, the Profile House in Franconia Notch, the Glen House in Pinkham Notch, the Summit House on Mount Washington, and lastly the Mount Washington Hotel built in 1902. The visitors at the hotels did little hiking but visited scenic sites and were led by guides up the mountains over bridle paths on burros or ponies. A bridle path up Mt. Washington from Pinkham Notch was opened in 1852. It became a carriage road in 1861. The Cog railway on the west side of the mountain opened in 1869.

Modern hiking is considered to have begun around 1870. People began to come to the mountains to climb and hike. They began to build foot paths and formed hiking clubs. The AMC was formed in 1876 at a meeting at the Massachusetts Institute of Technology. The AMC subsequently

had a profound effect on hiking which was accomplished through trail building, providing accommodations, and publishing trail guidebooks. The first AMC trail was Lowe's Path put in by Charles Lowe and William Nowell in 1876. Most of the trails today were built between 1870 and 1910. The first hut where hikers could stay was the Madison hut built in 1888. The Carter Notch hut was built in 1914 and Lakes of the Clouds in 1915. The Pinkham Notch Camp consisting of two log cabins was built in 1920 and managed by Joe Dodge beginning in 1922. In 1928, he became manager of the hut system. He oversaw the expansion of the hut system until stepping down in 1959. Louis F. Cutter's map was published by the AMC in 1886. The AMC White Mountain Guide described the trails in detail and first appeared in 1907.

The State of New Hampshire began selling wild lands in 1810. The last piece was sold in 1867 for $25,000 and consisted of 172,000 acres including Mt. Washington. Extensive logging on these lands began in the second half of the nineteenth century. Logging camps were built and most of the forest was clearcut. Logging railroads were built throughout the mountains. Many trails today follow the railroad beds. Inevitably, a conflict developed between loggers and those visiting the mountains. The slash contributed to devastating forest fires the effects of which can be seen in places today, although mostly the forest has made a remarkable recovery. There was a great public outcry and a conservation movement developed. Finally, the Weeks Act was passed in 1911 and provided the legal basis for the establishment of the White Mountain National Forest. John W. Weeks was a Representative and later Senator from Massachusetts.

After the flurry of trail building, the trails were not maintained and many grew in and disappeared. In 1919, the AMC formed the first trail crew to maintain trails. The first crew included Sherman Adams, future governor of New Hampshire and Eisenhower Chief-of-Staff. The advent of the automobile and the creation of the WMNF brought even more people to the trails. Today, the large number of hikers creates great stress on trails which require constant maintenance. Construction and maintenance is performed by paid Forest Service and AMC trail crews. The most recent trend has been increased reliance on volunteers to maintain trails. The AMC coordinates four volunteer programs in the White Mountain area; Adopt-A-Trail Program, Alpine Stewardship Volunteer Program, Camp Dodge Volunteer Crews, and Corridor Monitor. The history of the Adopt-A-Trail Program is found in Appendix J.

WHAT ARE MY RESPONSIBILITIES?

Adopters have the responsibility of performing the basic maintenance on a regular basis on a trail or section of trail. Trails are extremely fragile and without regular maintenance will erode, widen, or grow in. Proper maintenance is necessary to avoid serious damage to the mountain environment and to make hiking enjoyable and safe for hikers. Taking on the stewardship of a trail is a privilege and commitment, and it is important that the Adopter take the responsibilities of maintaining the trail seriously. Upon joining the program, the Adopter signs an Adopter Agreement (Appendix E) agreeing to perform the basic maintenance according to certain standards and requirements. The Adopter completes the required training and then begins work on the adopted trail. The basic maintenance tasks of Adopters are cleaning out existing drainage, trail clearing, marking the trail with paint blazes and cairns, and trail definition. These tasks are described in the section on trail maintenance. As a general guideline, it is estimated that a one to two mile section of trail would require a minimum of 24 hours (= three days) of work to perform these tasks. These three work trips should be distributed throughout the spring, summer, and fall so that maintenance issues can be addressed as soon as they arise. The Adopter also serves as an early warning system when serious problems are developing and alerts the Region Leader or trails staff so corrective action can be taken before a problem grows to major proportions. With training and experience, Adopters can perform more complicated tasks such as installation of waterbars and step stones. This should be done only after all basic maintenance tasks are completed and the work is discussed with your Region Leader or the AMC trails staff. Major construction and reconstruction projects are performed by AMC staff trail crews.

Basic Maintenance Tasks of Adopters

In order of priority, the maintenance tasks of Adopters are:

Drainage - clean all drainage structures of dirt and debris and reshape at least each spring and fall.
Trail clearing and definition - clear blowdowns, limbs, and brush annually to form a trail corridor four feet in width and eight feet in height (eight by twelve feet for ski trails). Prevent development of widened trails and multiple treadways bypassing wet areas and switchbacks.
Trail marking - paint blazes on trees below treeline, use cairns above treeline. Never paint blazes on rocks.

All work should be performed in a manner to protect the environment, natural resources, and the recreational experience of hikers. It is important to maintain good relationships with the AMC, USFS, New Hampshire and Maine State agencies, Appalachian Trail Conference, National Park Service, other Forest Service cooperators, and especially private landowners over whose lands the trails pass. Adopters are expected to act in the spirit of partnership and as AMC ambassadors to the hiking public.

Adopters are responsible for their own safety while working on trails. It is assumed that Adopters are familiar enough with the variability and potential severity of White Mountain weather to carry sufficient water, food, and clothing. It is still advisable to let family or friends know your itinerary. It is also recommended that Adopters not work alone when performing potentially hazardous tasks such as blowdown removal or heavy rock work. Adopters are also welcome to involve families, friends, and other groups in trail work. For the sake of safety, productivity, and effectiveness of the leader, groups should be limited to the Adopter and five persons. The Adopter is responsible for the work performed and provides instructions on tool use and safety and confirms that the group has adequate water, food, and clothing.

Adopters work on their own schedule and at their own pace during the spring, summer, and fall months. Most Adopters are able to perform the basic maintenance tasks over several weekends. A heavily overgrown trail may take many hours to clear out properly. Adopters can request the assistance of a volunteer crew through their Region Leader or the Volunteer Coordinator. Adopters work closely with Region Leaders and file reports of the work they have performed and on trail needs and problems.

SAMPLE ADOPTER WORK SCHEDULE

Adopters have a great deal of freedom and flexibility in how and when they maintain their trails. However, a sample work schedule is provided here to give you an idea of the best time of year to complete different types of maintenance. Of course, every trail is different and you may not be free at certain times, so this schedule should be considered a general guide that is flexible and can be modified. The White Mountains have the added constraint that the working season is relatively short.

May/June - An initial trip should be made in the late spring before the heavy hiking season begins. Your focus should be on correcting immediate problems such as clogged drainages, overgrown sections and blowdowns that remain after June 15 when the trail crew finishes patrolling. The best time to clean out drainages is in the spring and early summer. This removes leaves from the previous fall and clears the drainages for summer rains and thunderstorms. This is also a good time to check for drainage problems because the water table is high and the soils are saturated.

June/July - This is probably the best time to perform your annual clipping of branches that have grown into the trail during the previous year. It is also a good time to check whether any of your blazes are blocked by branches and leaf cover. Clean all drainages that need it.

July/August - Brush and weeds grow rapidly in the summer so you should check for new brush that has grown into the trail. This is also a good time for blazing because you are more likely to have periods of dry days. Because the water table is lower, it is easier this time of year to clear obstructed streams and put in new drainages and ditches. August, which is warm and has less average rainfall, is a good time to do work, such as building cairns and scree walls, in alpine areas. Clean all drainages that need it.

September/October - There are many nice days in the fall when the foliage is beautiful and the temperatures are pleasant. Any of the basic maintenance tasks can be performed but this is a good time to look for any reroutes or bootleg trails that may have developed over the summer and to brush them in. It is also important to thoroughly clean all drainages in the fall after the leaves have dropped. This ensures good drainage in the late fall and early winter when the ground is frozen and seeps appear in many places, as well as in the late winter and early spring during snow melts and early rains.

Winter - Most Adopters enjoy their free time during this period. Sometimes, though, the snows come late or leave early, extending your maintenance season. It is also useful to travel your trail on skis or snowshoes in the winter (be sure you have become knowledgeable about winter hiking in the White Mountains). You will gain an entirely different perspective of your trail when there is five feet of snow on the ground and the tree branches are weighted down with snow. This is especially important for ski touring trails that must be brushed more extensively.

REPORTING TRAIL WORK

Completing a work report form and promptly mailing it to your Region Leader is very important for several reasons. The AMC compiles the information on all reports in order to determine the extent of volunteer services devoted to trail maintenance. This information is needed to compile accurate year-end reports. The number of volunteer hours is reported to the Forest Service and, at times, has been used by Congress. Work reports also help the AMC to keep track of the status of trails. They alert trails staff to problems where a trail crew should be sent in. Finally, these forms help us keep track of your contribution of volunteer hours so that we can recognize your efforts through AMC Stewardship Society awards. See Appendix I for further information on the Stewardship Society.

A work report should be filed each time you perform work on your trail. **Send your report directly to your Region Leader**. Your Region Leader will forward the reports to the trails office throughout the season. On each work report, please report trail needs so that the Trails Department can track the problem needs. In addition, you should inform your Region Leader of any particular problems such as serious erosion or missing signs. Do not be disappointed if your problem does not receive immediate attention. The AMC has a large backlog of serious problems to address with a limited staff and must prioritize from a resource protection standpoint. Be sure to put the names and addresses of any coworkers on the work report. It is important to file the reports in a timely manner so that your Region Leader is aware of current trail conditions. You may fill the form out in the field or after you complete your trip, but it will most likely be more accurate if you keep it with you and record your work as it is completed. **Adopters are expected to send in at least three reports a year: at least one report by July 15, one by September 15, and the last by October 15.** If reports are not received regularly and the trail is reported to be neglected, you will be contacted by your Region Leader. Adopters not filing reports will be dropped from the program (please see "When it is time to let go" if you can't maintain your trail). A work report form is found in Appendix F. You may copy and use this form. You can also request an electronic form.

FACILITY USE POLICY

Volunteers contribute thousands of hours each year to the Adopt-A-Trial program to help care for the trails of the White Mountains. This work is greatly appreciated by the AMC, the Forest Service, the state of New Hampshire, the state of Maine, and by those who use the trails for recreation. The following policies were created to help facilitate Adopter access to their trail sections.

General facility use policy. The AMC Trails Department pays for a specific number of Adopter stays at AMC facilities. Facility-specific policies are listed below and must be followed. Your cooperation in following these policies enables us to continue to offer these benefits to Adopters. Thank you!

Cancellations. Adopters and work party members who make last minute cancellations or are no-shows are obliged to pay lodging fees for space that was reserved at Huts, Pinkham Notch Visitor Center, and Shapleigh Studio. Fees will be determined according to the normal guest cancellation policy: cancellations 30 days in advance receive full refund. Guests making cancellations 14-30 days in advance receive a 70% refund. Guests making cancellations 14 or fewer days in advance receive no refund.

The facilities at which Adopters may stay are listed below. **Check with your Region Leader regarding what lodging facilities have been assigned to your trail or section.** Adopters may receive one full day of meals (where available) and lodging for one full day of trail work (staying either the night before or the night after), and only while working on the trail. Lodging benefits cannot be accrued. See below for any limitations.

Camp Dodge. Camp Dodge is the center for AMC volunteer trail activities in the White Mountains. All Adopters are welcome to stay at Camp Dodge free of charge while working on their trail. It was originally a Civilian Conservation Corp (CCC) camp in the nineteen-thirties and now belongs to the Forest Service. It is located on the east side of NH Route 16 four miles north of Pinkham Notch Visitor Center and six miles south of Gorham. In the summer, there is a large yellow and brown sign by the entrance. Use caution when entering and leaving as the entrance is located near a curve in the road.

Camp Dodge is open from the end of May through the last weekend prior to the last week of September. Adopters can plan to stay or obtain tools at Camp Dodge during this period of time. Adopters should call the Camp Dodge Coordinator directly at 603-466-3301 for the exact opening date and reservations. Call at least three days in advance for lodging and seven days in advance for meals (when available). Be ready with the following information when you call: name, phone number, date of stay, trail name and section, group size, number and type of meals needed, and any dietary restrictions.

Camp Dodge offers a dining hall, restroom and showers, bunkhouses, tool shed, field for pitching tents, recreational facilities, and a beautiful view of the Presidential Range. Adopters can stay in the bunkhouses if space is available or tent in the field. Besides a tent, you should bring a sleeping bag and a towel. Meals are served during the week on certain days from about the middle of June to the end of August. When prepared, breakfast is served promptly at 7 AM and supper at 6 PM. You can prepare a trail lunch after breakfast. Call Camp Dodge if you need more information about when meals are served. When meals are not being served, you may bring your own food or arrange with the Camp Dodge Coordinator to have food available for you to prepare. Be sure to clean up. In the evenings, there are may be games, talks, and slide shows, sometimes given by Adopters. In addition, free programs are held every night in the summer at the Pinkham Notch Visitors Center at 8 PM. These include slide shows and lectures on a variety of topics.

Shelters, tentsites, campsites. On a work trip, Adopters in a group of up to six people can stay free, if space is available, at AMC shelters, campsites, or tentsites. These sites are available year round on a first come, first served basis. Adopters with work parties should contact the Groups

Outreach Coordinator as far in advance as possible so that caretakers at the sites will be aware of your plans. Call 603-466-2721 ext. 220. Work party benefits are limited to groups of up to six people, even if the Adopter maintains more than one trail section. This policy encourages small group size for safety and impact reasons.

Lafayette Place Campground – Franconia Notch State Park. The NH Division of Parks and the AMC allow AMC Trail Adopters to stay for free at Lafayette Place Campground while on work trips. This benefit is limited to three work trips per year with free stay at Lafayette Place Campground for a maximum of two nights per work trip. Group size is dependent upon availability. Please contact the Lafayette Place Campground Manager ahead of time for availability and reservations at 603-823-9513.

Huts. Adopters may stay for free at huts assigned to their trail (see below for limitations). Check with your Region Leader for confirmation of which facilities are available. When calling to make a reservation, check that the hut is open for service. When staying at a hut, Adopters may present an evening program on trail maintenance; check with the hut crew regarding program needs. Adopters may receive a 30% discount on over-the-counter items purchased during work trips. The discount is extended only to Adopters who have signed the Adopter Agreement. This benefit is not extended to work party members who are not Adopters or to friends of Adopters. The items purchased should be used for the purpose of assisting the Adopter in his or her trail work.

Self service. Stays during hut self-service periods are encouraged. There is no limit on the number of trips per year. The maximum trip length is a two-night stay.

Full service. Adopters may stay at huts in groups of two people maximum for a maximum of two nights. There is a maximum of two hut trips per year per Adopter. Weekend stays are permitted. No stays in August.

Pinkham Notch Visitor Center. Please plan your trips during the time Camp Dodge is open. If you need a place to stay when Camp Dodge is closed, call the North Country Trails Volunteer Coordinator about staying at the Visitor Center. There is a maximum of one trip per year, two-night maximum stay, and two-person work party including the Adopter.

Highland Center Lodge. The Highland Center is not available for free stays.

Shapleigh Studio at Highland Center. Bunks are available at the Shapleigh Studio. There is a maximum of three trips per year and a two-person work party, including the Adopter.

Camping. Adopters may camp in the backcountry during their work trips. While camping, all regulations of the local land management body must be followed. Note that there is no backcountry camping on State Park lands. Please follow the regulations outlined in the most recent USFS publication, *Backcountry Rules and Regulations*. As a general rule, always camp at least 200 feet from water sources and trails and one quarter mile from trailheads or facilities. Do not camp above treeline. The Trails Department encourages Adopters to follow Leave No Trace principles and practices.

HOW CAN I GET TRAINING?

How do I learn the techniques to maintain my trail? Fortunately, there are many opportunities available to you as an Adopter. This Trail Adopter's Handbook contains basic information on trail maintenance and standards and should be your starting point. For more detailed information, see the book *The Complete Guide to Trail Building and Maintenance*. This is the trail maintainer's bible and covers all of the skills and equipment required to plan, build, and maintain trails. It is available free to new Adopters and is distributed during Basic Maintenance/Alpine Skills Sessions.

Training sessions are available at no cost for Adopters and co-Adopters who will be sharing trail work responsibilities. Many Trail Maintenance sessions are held in the summer. **New Adopters are required to attend a skills session before working on their trail.** These workshops focus on basic trail maintenance techniques**.** Current Adopters must attend the appropriate skills session/s for their adopted trail or trail section (basic or alpine) every three years or work for a day with their Region Leader. Higher level Trails Skills sessions are sometimes also held during the summer. These are one and two day workshops which involve more advanced trail work techniques and hands-on experience. Examples of topics for the Trail Skills Program include drainage and trail hardening, rock steps, alpine

trail work and rehabilitation, first aid in the backcountry, crosscut saw use and maintenance, comprehensive trail maintenance, chainsaws and brush saws, axes and bow saws, trail log and trail assessment, and new trail design and construction. Most workshops are run out of Camp Dodge. It is highly recommended that you attend one of these sessions, especially if it pertains to the needs of your trail. Besides having the opportunity to learn from AMC trails staff, these sessions are often offered as well as attended by personnel from the Forest Service, NH State agencies, and other clubs and organizations such as the Adirondack Mountain Club, Green Mountain Club, and The Nature Conservancy. It is always helpful to share knowledge and experiences with other maintainers. Some training sessions are offered free of charge and some carry a minimal cost. See the AMC's web site or contact the North Country Trails Volunteer Coordinator for a full schedule.

If you need assistance or advice on your particular trail, you should contact your Region Leader. The Region Leader is familiar with your trail and can walk the trail with you or alert you to particular problems over the telephone or by e-mail. Your Region Leader's address, phone number and e-mail address will be given to you when the Adopter Agreement is completed. You will learn a great deal about techniques for your trail through experience. In dealing with many problems, an experimental-incremental approach is effective. Try first a conservative approach to such techniques as blazing, scree walls, and blocking bootleg trails. If you find on your next visit something was not effective, you can take more aggressive action, e. g., better trail definition or higher scree walls, until the problem is corrected.

OTHER POLICIES AND USEFUL INFORMATION

Adopters will periodically receive various kinds of information. You will receive information from the trails staff on skills sessions, special trails events, and much other useful information. In addition, your Region Leader will be in touch with you from time to time. The *Adoption Papers* will periodically provide news and information on the Adopt-A-Trail Program and trails.

AMC trail volunteer cards are available from the North Country Trails Volunteer Coordinator. Every Adopter is authorized and encouraged to carry these cards, to affix their signature on the cards, and to give these cards to any interested persons. These business type cards list AMC trail programs and tell the interested person how to obtain further information.

The AMC Stewardship Society gives awards for certain hours of volunteer work. See Appendix I for further information. The hours listed on your work report are included in the tally of hours at the end of the year.

While staying at Camp Dodge or working on your trail, you may encounter other trail crews. The Camp Dodge Volunteer Program provides the opportunity for individuals or groups to work on trails for a one to three week period. These crews are referred to as Dodge crews or volunteer crews. Under the direction of an experienced staff member, these crews perform brushing, building bog bridges, and installing ditches, dips, waterbars, step stones and rock steps. Groups participating in this program have included Landmark Volunteers, AMC Wilderness Teen Adventures, the Sierra Club, Volunteers for Peace, Eastern Mountain Sports, Alford Lake Camp, World Teen Camp, Camp Interlochen, and interested people signing up. Another crew is the paid staff crew or AMC trail crew. This crew performs heavy reconstruction projects throughout the region.

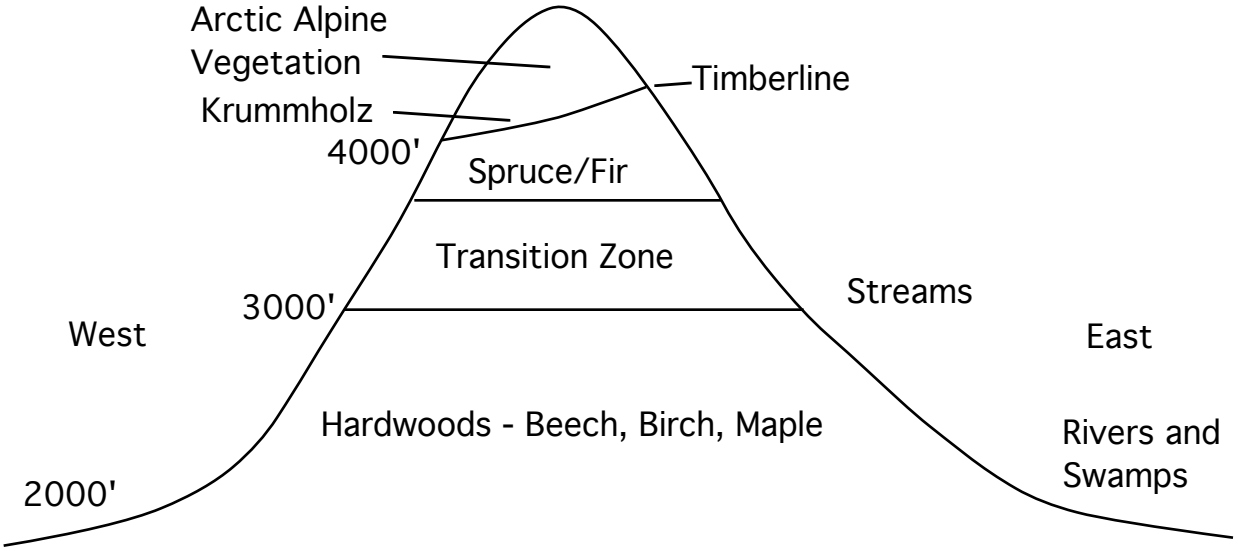
Adopters are encouraged to contact their Region Leader to request the assistance of a volunteer crew as scheduling allows for work on their trails. Adopters can work jointly with the crew. Experienced Adopters may even help co-lead a crew with an AMC trails staff member for a day. Besides getting work done, working with a crew is an enjoyable and rewarding experience. Assistance is requested where there is a major problem on your trail requiring immediate attention or reconstruction, if a safety hazard exists, or if you have inherited a trail that has not been maintained for some time and has seriously deteriorated.

There are a wide variety of one- or two-day trails projects and events available, such as National Trails Day, New Hampshire Trails Day, and AMC chapter-sponsored projects. See a full schedule on the AMC website, or contact the North Country Trails Volunteer Coordinator for more information.

The Internal Revenue Service allows deductions for out-of-pocket expenses you paid to do volunteer work for a charitable organization. Thus, out-of-pocket expenses for meals, lodging, and travel while giving voluntary services and the cost of or repair to equipment and tools used in such pursuits are tax deductible. Be sure to keep receipts and copies of your work reports to verify your work and expenses, if necessary. Contact the IRS or your tax adviser for current tax guidelines.

THE MOUNTAIN ENVIRONMENT

Maintenance tasks are dependent to a large degree on the location and elevation of the trail. Some trails are located in one zone of vegetation while others pass through several zones. The vegetation located in the different zones affects the type of trail clearing needed. In addition, different zones present different drainage problems. A striking change in vegetation occurs as one ascends a mountain. The valley floors are occupied by forests of beech, birch, and maple. This area also contains large rivers and swampy areas. The hardwood forests extend up to about 3000 feet of elevation. Spruce and fir then mix with the hardwoods and take over completely at higher elevations. Approaching timberline, the trees become shorter and give rise to the low, stunted growth known as krummholz (German for "crooked wood"). Timberline is defined by where the average mature tree height is less than eight feet. In general, timberline occurs at a lower elevation on western slopes which are more exposed to the prevailing winds than the eastern slopes. Arctic alpine vegetation is found above timberline. These plants are adapted to survival in the harsh weather conditions of the high elevations. However, they are extremely fragile and susceptible to damage by hikers. Some are rare and endangered and must be protected.



Zones of Vegetation

It is usually wise to check the weather forecast before proceeding on a work trip. Weather forecasts are posted daily at 8 AM at Pinkham Notch, Camp Dodge, the huts, shelters and tentsites with caretakers, and Shapleigh Studio. Adopters should be aware that sudden and extreme variations in weather occur in all seasons in the White Mountains and should take precautions in the event of adverse weather. Keep in mind that the number of mountaineering fatalities on Mt. Washington is exceeded only by those on Mt. Everest. Thus, you should not take excessive risks and should descend when storms are approaching. There is a risk of hypothermia, even in summer, especially if you are tired and sweaty and the temperature drops and the winds increase. Always take raingear and fleece or

wool outerwear when going to high elevations, no matter what the forecast is or what the temperature is at lower elevations. Be sure also to have adequate sun protection. The incidence of melanoma, a malignant cancer of pigment cells of the skin, has been increasing in recent years. The disease is directly related to the degree of exposure to ultraviolet radiation which scientific studies indicate is increasing due to thinning of the ozone layer. Cover all exposed surfaces such as face, ears, back of neck, and hands with a waterproof sun screen lotion or sunblock which is rated 25 or higher. Wear long pants, a long sleeve shirt, and a broad-brimmed hat to protect the face, especially above treeline. Also, wear sunglasses to block ultraviolet radiation and prevent cataracts.

INTERACTING WITH THE PUBLIC AND WITH AGENCIES

While you are working on your trail, you will have frequent contacts with hikers. Most of your encounters will be of the pleasant variety. Take some time from your work to chat with them. As a representative of the Appalachian Mountain Club, you are a valuable educational resource. Hikers will ask questions about what you are doing and you can give them a brief explanation of trail maintenance. Many will thank you for your efforts. Some hikers will think that you are a forest ranger and are not aware that much of the trail maintenance is performed by Adopters. Explain the Adopt-A-Trail and Alpine Stewardship programs and the work of the trail crew to them. Some may express an interest in trail work and should be given a trails volunteer card that provides contact information.

The best public relations occur as the result of a well-maintained trail. A well-maintained trail is recognized and appreciated by the public and often reported. Some people have strong opinions on trail conditions regardless of knowledge or experience with trail maintenance. Be prepared for hikers to voice their opinions on your trail's condition, both positively and negatively. Just accept their comments with a "thank you." Everyone comes with a unique perspective. Focus on the goals of the Adopter Program and have faith and confidence that the basic maintenance you perform regularly is making a significant and valuable contribution to your trail.

You will also encounter hikers having difficulty. Some may be lost, improperly conditioned and equipped, lacking water, or injured. For example, at 5 PM you could encounter a family in sneakers who have completed about 1/4 of a planned eight mile loop hike. It is best to factually state the time it will take to complete the hike, the severity of weather at higher elevation, the lack of water, and the lateness of the hour. Most will make the decision to turn back. It is useful to carry a guidebook and map for giving directions and a first aid kit to deal with minor injuries. Take any lost articles you find to Pinkham Notch Visitor Center or the Highland Center where a lost-and-found is maintained.

Unfortunately, you will also meet hikers who are behaving in an inappropriate manner. Problems are more frequent on trails leaving a highway to a scenic site. Examples of trail misuse include littering, not staying on the trail even when it is clearly marked or screed, camping in illegal sites, cutting trees, picking wildflowers, polluting water supplies, bringing unrestrained dogs, drinking and smoking on the trail, creating excessive noise, and hunting, logging, or motorized travel in unauthorized locations. It is best to resist the temptation to become angry and reprimand these people. Instead, you can attempt to diplomatically educate them by explaining the consequences of their actions. Avoid embarrassing the individual or group leader. Useful information on trail etiquette can be found in the book *Backwoods Ethics*, by Laura and Guy Waterman and in many backcountry publications put out by the Forest Service. The latter are available free of charge at the Forest Service Offices and at the information desk at Pinkham Notch. Finally, you may encounter criminal activities such as vandalism of trailhead signs or structures or car break-ins in parking lots. These should be reported at Pinkham Notch so the appropriate law enforcement agencies can be notified. The Forest Service should also be notified about serious or urgent situations.

Feel free to drop in at the trails office to introduce yourself and talk to trails staff. The staff are always glad to meet Adopters. They also may have some useful information about your trail.

REGION LEADERS

The trails in the White Mountains and Mahoosucs have been divided into regions, each of which has been assigned a volunteer Region Leader who will oversee the trails and the work performed by Adopters in that region. Region Leaders serve as a contact for Adopters regarding trail needs and problems and provide support for Adopters. Adopters send work reports directly to Region Leaders. Region Leaders also inspect the trail and the Adopter's work. Region Leaders fill out a report (Appendix H) which is sent to the Adopter and the trails office. Adopters should be open to feedback from Region Leaders as they are active in assessing trails conditions on a variety of trails. Most Region Leaders are or were Adopters and understand the problems faced by Adopters. So that Adopters will understand the functions of Region Leaders, a description of their job is provided here.

Overview. The job of the Region Leader is to assure that basic maintenance is being accomplished according to defined standards as outlined in this Handbook. Region Leaders should be avid hikers and experienced Adopters. They should inspect at least half of assigned trails each year, so that 100% coverage is achieved in two years. Region Leaders should be prepared for a commitment of at least two years. Communication with Adopters and familiarity with the trails is important. All Region Leaders are considered At-Large members of the AMC Trails Committee, and all Region Leaders and Adopters are invited to attend the meetings. The Trails Committee is an AMC clubwide committee that holds a meeting at each of the fall and spring gatherings as well as at the Annual Meeting. Region Leaders will be responsible to and look to trails staff, specifically the North Country Volunteer Coordinator, for direction and assistance.

Objective. The Region Leader's field observations should focus on the basic maintenance of the trail. The Region Leader will inspect and report on blowdowns, brushing, blazing and cairns, drainage, and other matters such as bootleg sites and trails. The Region Leader will receive and review work reports directly from Adopters and maintain copies of individual Adopter files. Copies of work reports will be sent to trails staff by the Region Leaders in a timely fashion during the season. Over time, the Region Leader should meet and get to know the Adopters. Coordinating communications with Adopters is important. Receiving work reports, answering inquiries, and following up on issues in cooperation with trails staff are all responsibilities of the Region Leader.

Walking every assigned trail section is the second major responsibility of the Region Leader. In lieu of a skills session, walking and working on the Adopter’s trail with the Region Leader is the best way to discuss trail conditions and update the Adopter’s skills. If this is impossible, then low-key feedback via checklists and commentary is advised. Region Leaders will send reports of their observations to Adopters. These reports, particularly criticism of work not done by Adopters or completed marginally, must be constructive and supportive. Any significant problems with Adopters should be discussed with the North Country Trails Volunteer Coordinator and recommendations for action made. The Region Leader and each Adopter should have an agreement regarding whether the Region Leader will do any work or not. For example, obvious blowdowns and drainage needs could be done by the Region Leader when he or she hikes the trail, if this is the agreement.

Region Leaders should learn and know what the "baseline" trail conditions were when an Adopter started maintaining the trail. Sometimes getting basic maintenance which has been long ignored may take many hours to get up to standard. Understanding what the Adopter faced at the beginning is important for the assessment of work completed.

Special trail characteristics are part of the Region Leader's needed baseline information.

What is the appropriate blazing color?
What signs should be on the trail?
Is the trail used for cross-country skiing?
Is the trail in a designated Wilderness Area?
Is the trail slated for major new construction or relocation?

Region Leaders and Adopters should understand that they will not be the only ones in the field noting trail conditions and work accomplished. Agency staff (USFS and NH State Parks), AMC Trails Department staff, shelter caretakers, trail crews, and Dodge leaders often note conditions as they hike trails or do worklogs for reconstruction projects and will give comments on trails to the Trails Department over the course of the summer. Any significant comments relating to Adopter work will be passed on to Region Leaders or Trails Department staff. All of this input is collected yearly and used to evaluate the condition of trails.

Skills. The best knowledge for a Region Leader to possess is the experience of being an Adopter - with all the skills, basics, and judgement that is involved. In addition, the skills of observation, assessment, and tactful communication are necessary. Workshops or one-on-one instruction will be available to Region Leaders. Region Leaders can help by sharing their own techniques and experience in conducting a skills session.

Communications. Region Leaders will receive lists of their Adopters from trails staff and work reports from Adopters. Also, the trails staff will forward copies of any other reports and observations as they come in. **Region Leaders have primary responsibility in dealing with Adopter comments and questions.** They will work with trails staff to see that needs are met by the trail crew, Dodge crews, or trails staff. In addition, copies of the Region Leader's reports will go to the Adopter and the trails office. Conversely, copies of letters from staff at Pinkham or an agency partner (e. g., USFS, NH State Parks) will be copied to Region Leaders.

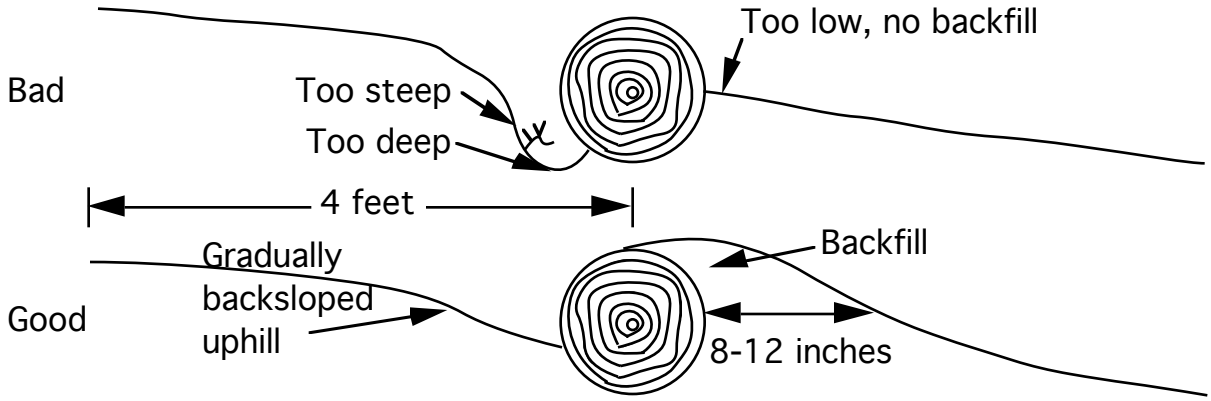
BASIC TRAIL MAINTENANCE

The procedures for trail maintenance described here should be followed by Adopters in order to achieve uniform standards of maintenance for all trails in the White Mountains. Two exceptions are trails in Wilderness Areas and in alpine areas. See the appendix for standards in these areas. If your trail is part of the Appalachian Trail, you should follow the procedures of the Appalachian Trail Conference. Before undertaking trail maintenance, it is very useful to take an inventory of your trail noting the number and location of signs, waterbars, rock steps, cairns, etc. This will serve as a baseline for future reference. Keeping a logbook or notebook of your work reports will help you monitor your progress. In addition, you can follow the progress of regrowth and regeneration of vegetation as a result of efforts such as blocking bootleg trails, building scree walls, and installing adequate drainage. Basic maintenance, besides providing convenience for hikers, makes a major contribution to protecting the mountain environment. Further information on trail maintenance can be found in the book *The Complete Guide to Trail Building and Maintenance* or by attending a skills session.

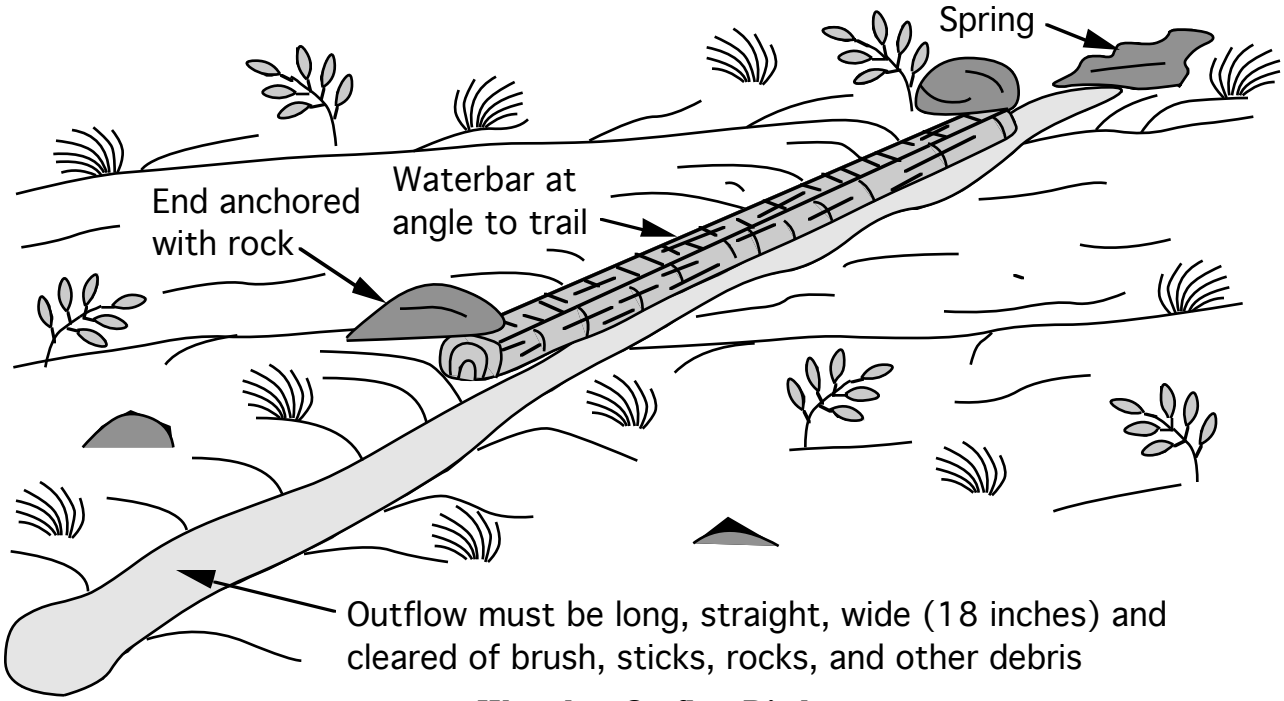
Drainage. The most important task of Adopters is maintenance of trail drainage. Failure to maintain drainage results in a severely eroded or flooded trail. Erosion can also result in serious damaging of existing trail construction such as rock steps and cribbing. These problems and their consequences for the environment can be greatly reduced by proper maintenance of trail drainage. This includes clearing of log and rock waterbars, drainage dips or soil waterbars, outflow ditches, side ditches, and the clearing of debris from some streams that cross the trail.

One of the most effective tools for cleaning drainage is the hazel hoe or adze hoe. A fire rake or garden rake can also be useful. A shovel is helpful when large amounts of dirt must be removed. An army style foxhole shovel or entrenching tool is lightweight and easy to carry. A pick mattock or a cutter mattock are often used because they can be used for clearing dirt, cutting roots, and prying rocks. The pick mattock has the disadvantages that it is heavy and the blade is narrow, but it is a widely used tool for clearing drainage due to its versatility. Some Adopters have found that ordinary garden hoes, which are easy to obtain and light in weight, are satisfactory for cleaning drainage, although they are less effective. The handles can be cut off at about four feet, making them easier to carry and use.

When clearing drainage, pull all soil and rock in wood and rock waterbars and soil waterbars (drainage dips or waterdips) up over the waterbar and deposit it in the trail on the downhill side. The mound of dirt backfills the waterbar and rebuilds the dip. Leaves, roots, and organic debris should be discarded. Do not shovel or hoe the soil out the end of the drainage and off the trail. Waterbars that do not have sufficient backfill on the downhill side are likely to undermine and dips that have worn down too much may allow water to flow over them down the trail. Backslope the uphill side of the ditch four feet up from the bar in the trail. If the uphill side is too steep, traffic and water will collapse it and the soil will clog the waterbar or dip. Cut out loose roots and remove rocks as these will collect debris. Clean waterbars down to approximately two inches from the bottom of the waterbar. If the depth is too great, water will undermine the waterbar.



Waterbar Cross Section



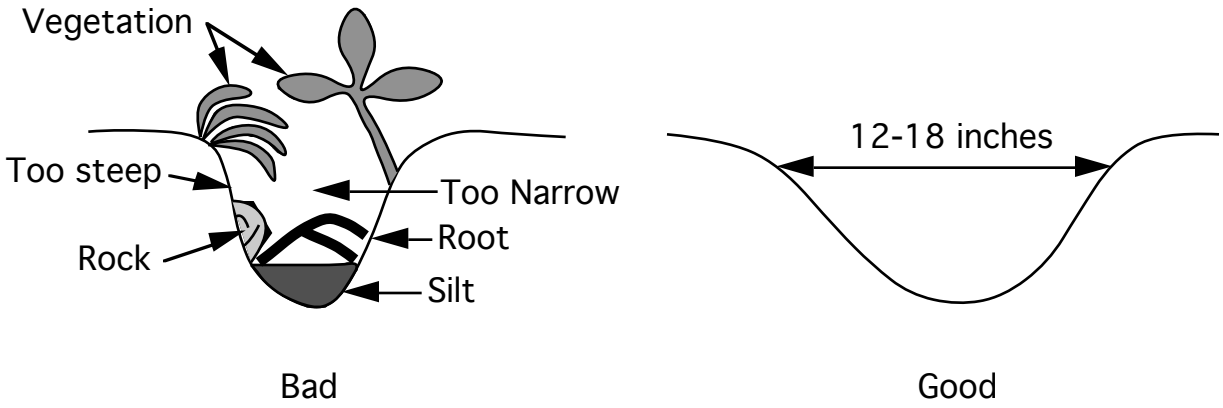
Waterbar Outflow Ditch

The outflow ditch at the end of the waterbar should be straight, wide (at least 18 inches), deep, and root-free with side slopes graded. If the outflow is not adequate, it will clog and cause the waterbar to fill up with dirt and debris. It should drop off sufficiently so that water is carried off and does not back up. However, the drainage ditch should not drop precipitously off the downhill side of the trail. If

it does, the ditch will erode back up toward the trail and eventually into it. Brush out the area along and at the end of the ditch to facilitate cleaning. Outflow ditches often require considerable digging and removal of roots, vegetation, and rock. Ditches should be long enough to ensure that water is taken well off the trail and does not reenter the trail further down. Curved ditches slow the water down and allow silt deposits to form and clog drainage. If the ditches are too shallow, water may overflow. Steep sides may collapse and clog the ditch. A good, wide ditch will require less maintenance over time and ensure adequate drainage.

Streams with shallow channels crossing the trail should also be checked and cleared of debris, if necessary. Logs, brush, rocks, and leaves may clog the channel and divert the water so that it runs down the trail.

Side or drainage ditches are useful in areas of wet, saturated soils. They are particularly helpful in directing water alongside a trail in places where a waterbar can't be placed across the trail. Ditches can be dug along one or both sides of the trail to provide drainage for ground seepage and to create a high, dry trail tread. Drainage ditches should be carried down the trail to the next waterbar which will direct the water away from the trail. Ditches silt in and become vegetated and, like waterbars, need to be checked each year. The same principles apply to ditches as to waterbars and waterdips. Avoid leaving large, unsightly mounds of dredge mud and debris along the side of the ditch. Organic mud and leaves should be discarded as they hold water and make the trail muddier.



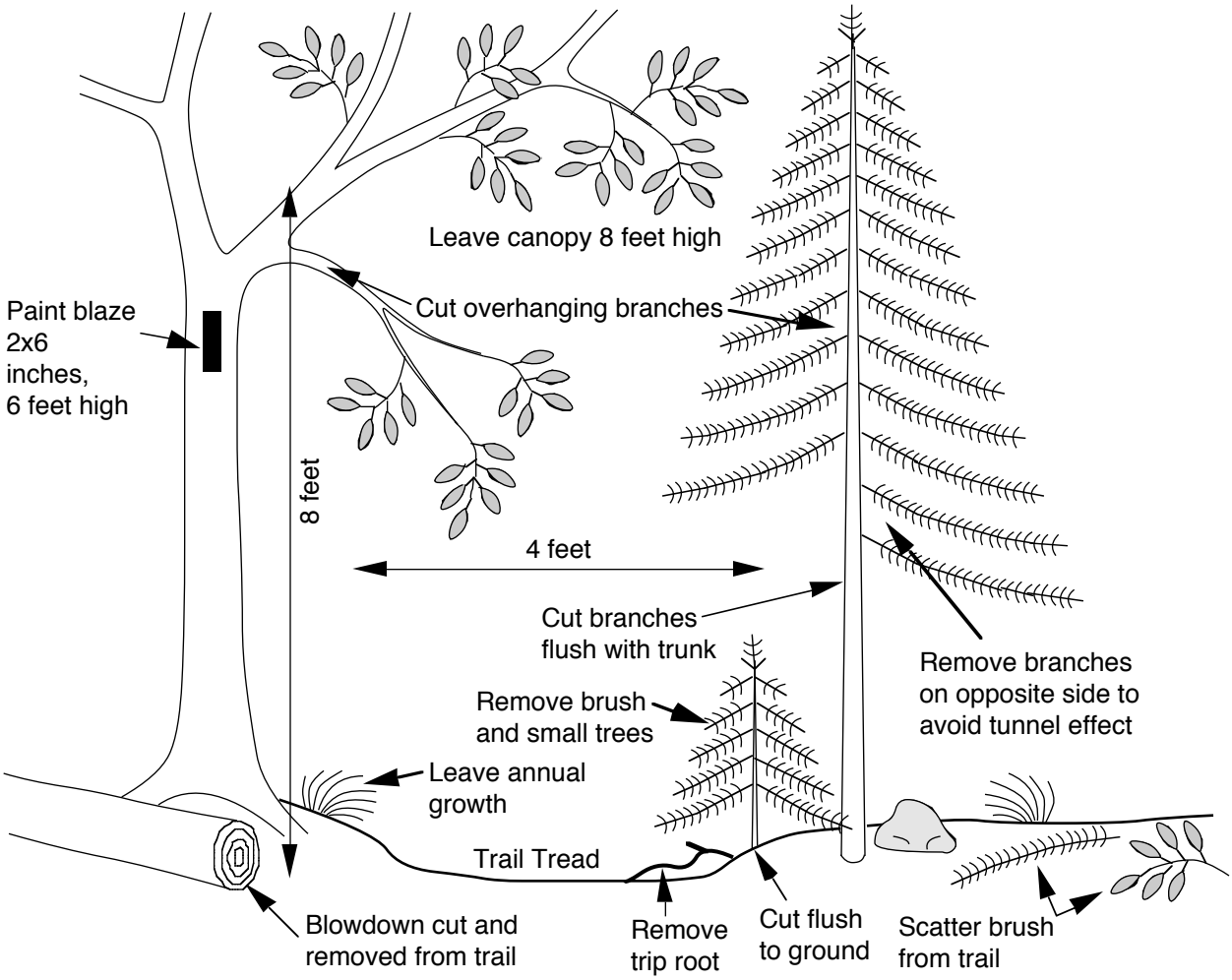
Drainage Cross Section

Trail Clearing. Another important task of Adopters is clearing brush growing in alongside a trail. Without regular brushing, even a heavily used trail can become overgrown in a few years. A properly cleared trail is one upon which a large hiker with a full pack can walk erect without touching trees, limbs, or brush. The line of sight is open and unobstructed and the footing is clear. The correct height and width (trail corridor) for a cleared trail depends on the terrain and vegetation. A four foot width is sufficient for most wooded trails. Trails used as ski trails should be brushed wider. A narrower width is preferable for trails above treeline or in Federally-designated Wilderness Areas. The trail should be cleared to a height of eight feet or as high as one can reach. The most commonly used tools in trail clearing are hand clippers, pruning shears or loppers, and bow saws.

Special attention should be paid to the lateral branches of softwoods alongside the trail. When wet or covered with snow, these extend down into the trail reducing both its width and height. Hikers brushing against these branches quickly become wet. Adopters, if possible, should walk their trails in rain or just after a rain storm to gain a good appreciation of how much brushing is needed. Limbs on trees should be cut flush with the trunk. Stubs are unsightly and create bothersome and sometimes dangerous snags for packs and clothing. Branches growing toward the trail should be cut back to the limb growing away from the trail. If trees are pruned in this manner, rather than being indiscriminately cut, sucker growth into the trail will be reduced. Sucker growth occurs when a root system, which has developed to provide water and nutrients for a tree of a certain size, supports enhanced growth in the

remainder of a tree when a large part of the tree is removed. Some branches on the opposite side of the tree should be removed to avoid creating a tunnel-like appearance of the trail. A canopy left over the trail at a height of eight feet or more will suppress underlying growth.

Low shrubs and young trees which tend to come in at the sides of the trail should be cut flush with the ground for aesthetic and safety reasons. Avoid leaving pointed stumps that are potentially dangerous if stepped or fallen upon. Annual growth such as ferns can be left unless it is particularly thick and aggravating. Avoid clearing branches in an effort to widen the trail if it exposes fragile plants and mosses to trampling. Remove all dead trip roots from the trail. Don't cut live roots in the ground and do not brush on the downhill side of a side hill because these help hold the soil. Cut only free or hanging roots that may catch boots. Do not cut trees and undergrowth heavily on the inside of a corner as it will encourage hikers to shortcut the corner. Don't cut edges heavily in boggy areas or hikers will widen the trail.



Trail Clearing

After brushing, it is very important to remove all branches and debris from the trail. Brush left in the trail can obscure roots, rocks, and holes in the trail. It can also result in hikers slipping on steep sections. In rain, brush will move down the trail clogging waterbars and drainages. Pick up all branches, trees, and debris and scatter them off the trail with the cut ends facing into the woods away from the trail. Piles should be avoided because they are unsightly and can create a fire hazard. Downed trees should be dragged butt first until the top is completely off the trail. This helps conceal the tree. Large limbs and small trees can be thrown clear of the trail, provided they do not hang in the

branches of shrubs and trees next to the trail or stick up butt first. If it is windy, check the wind direction before throwing brush as it can blow back on the trail or onto you and hikers. Be sure not to throw brush into drainage ditches or their outflows. This will clog ditches and seriously affect proper drainage.

The trail crew will patrol all AMC trails in the spring and remove all blowdowns before June 15. In addition, trail crews will clean the waterbars (briefly, but not as thoroughly as Adopter standards) on one third of AMC trails in the White Mountain National Forest every year. Some trees will fall during the course of the season and can be removed by Adopters. Blowdowns across the trail and trees leaning over the trail ("leaners") should be removed. A large blowdown lying across the trail should be cut on each side of the trail and the center section removed. Smaller blowdowns can be cut in pieces and dragged away from the trail. Leaners have to be cut down and dropped into the trail before cutting up for removal. Sometimes a large tree falls parallel to the trail with branches projecting into the trail (linear blowdown). If the tree is not in the trail, the projecting side branches can be cut off. Be sure to cut these flush with the trunk. Most blowdowns, including relatively large ones, can be cut with a bow saw. Larger trees may require a chainsaw which can be used with AMC felling certification (do not use chainsaws in Wilderness Areas). We recommend that if you have a tree that is too large for you to handle, inform the North Country Volunteer Coordinator or your Region Leader so that arrangements can be made for a crew to remove it.

Take safety precautions when removing blowdowns. It is best to work with someone when removing blowdowns. Study the situation carefully before beginning, noting especially the direction in which trees or branches will move and fall. Determine whether there are any springpoles underneath the blowdown. When weight is removed from springpoles by cutting the overlying log, they can suddenly spring back and inflict serious injury. Identify an alternate unobstructed escape route in case the tree does not fall in the direction you planned. Be careful of limbs or tops snapping off above you, especially when the tree is falling. This occurs more frequently with old, dead trees known as "widow makers" (or “widower makers”). A hardhat is essential when felling any kind of tree. Avoid cutting widow makers or anything else unless you are confident you can do so safely.

Pruning in the Krummholz Zone. Special care should be taken when clearing trails near or above treeline where the climate is severe and growth rates are very slow. Trees two to three feet tall can be over 100 years old. The trees forming krummholz grow in interdependent communities in which roots and branches are intertwined in protection against wind and cold. Removal of one tree in a patch of krummholz can jeopardize the other trees in the patch. The trail maintainer’s favorite lopper is inappropriate for the level of detail you will want to have when pruning krummholz. A by-pass, hand-held pruner such as the Felco #2 is recommended. Another useful tool is the folding, sabre-tooth pruning saw.

Prune limbs rather than completely cutting trees and ground vegetation. Be careful cutting branches near the ground. They can snake their way for long distances and you can wind up killing a large branch. Try to find the whole branch before cutting so you know exactly what you are removing. Remember that krummholz grows in areas protected from the relentless winds, therefore be careful about how wide you open up the trail corridor when pruning branches. The rule of thumb is that the branches should not touch a hiker, so a two foot corridor is ample. You will find this is different when you hike back down the trail, some branches that did not hit you on the way up, will stick out far enough to get you on the way down. So prune in both directions. The acceptable four foot corridor below treeline is not required. You should make the pruning cut just outside the branch bark collar. This is the ring of callous material at the base of the branch that will heal the wound. Flush cutting removes this ring, so be careful and take your time; it takes patience to maneuver your hand-held pruners into the right position to make the cut. If the branch is over a half inch in diameter, use your saw to make the cut. If you take off about two years growth you will not have to trim the same tree every year. When pruning the lateral branches, leave one that is growing away from the trail. This will become the new leader or dominant branch, and selecting it to grow away from the trail will save work next year.

By being observant of old cuts, you can see how trees heal themselves. Look at trees where branches have been removed and you will see the callous cells growing over and compartmentalizing the wound. After the next growing season, go back and look at the tree to see how your cut is healing. If the branch collar is growing symmetrically all around the wound, the cut was in the right place and at the right angle. Avoid leaving points or stubs when you prune. Besides being dangerous to a falling hiker who might stick out a hand to break the fall and get a puncture wound, the stub creates an opening for disease-carrying organisms to enter the tree. A tree with a bunch of stubs does not have a natural appearance. (Adapted from an article by Stephen Crowe.)

Blazing. A properly blazed trail is important in making hiking a safe and pleasurable experience. In addition, by helping keep hikers on the trail, blazing reduces impact on the environment. Re-blazing your trail should only be done after all drainages are cleaned and the trail corridor is brushed. Adopters should inspect the state of the blazing on their trails. Blazes that are of the wrong color or which have faded should be replaced. Before beginning, assemble a paint kit containing the following suggested materials.

Paint Kit

Squeeze bottle of 1-2 pints of paint - check your trail and make sure you are using the correct color for your trail section/s: WHITE - AT, BLUE - AT connector, YELLOW - all others. There is a map in the tool shed that defines what trails are what colors.
Green scrubby - to clean tree's surface before painting
2" Paint Scraper - to remove a thin layer of bark or old paint before painting
1" Nylon Paint Brush - for 2" wide blazes
Rag - for tidiness
Ziplocs - to carry paint bottles in
2 Quart Ziplocs - to put wet paint brush in
Bucket or Gallon Ziploc - to put it all in

The AMC provides paint kits which are available by calling and requesting one from Camp Dodge. Please give one week's notice to Camp Dodge for receiving a blaze kit. Please call the Camp Dodge Coordinator ahead of time for a paint kit giving your name, trail name, and section name. You should request your paint kit be left in the Dodge tool shed on a specific date/s for you to pick up. Suggest that your name be put on the kit and let Camp Dodge know when you will return it. Thanks!

The two items most frequently lost when blazing are the paint brush and the scrub pad. It is frustrating to lose your brush three miles in at an elevation of 3000 feet and being unable to continue blazing. Thus, it is best to put extras in your pack. Wear old clothes when blazing, as you will get paint on them, regardless of how careful you are. All Adopters should use the same paints in order to achieve standardization in both quality and color.

The colors to be used on trails in the White Mountain National Forest are listed below. The Camp Dodge Coordinator will insure that you receive the correct color. There have been examples of trails blazed with an improper color which then require corrective action. A blaze-color map is available in the tool shed at Camp Dodge as well. Please confirm the blaze color for your trail during your next visit. **Also, please call if you are uncertain about whether your trail is in a Wilderness area.**

Colors for Trails

Designated Wilderness areas and above treeline – NO BLAZES!
Appalachian Trail - White
Trails connecting directly with the Appalachian Trail - Blue
All other trails – Yellow
No blazing on rock!

The size for all blazes is a two inch by six inch rectangle. Several techniques have been devised for judging the size of the blaze. A dollar bill is two and a half by six inches and, after folding over one half inch along the length, can be used as a gauge. A one or one and a half inch paintbrush can also be used as a gauge, which avoids an extra piece of equipment. To judge the length, obtain a brush with a six inch handle or, before leaving home, place a mark on the handle six inches from the end of the brush. Stencils, in which a two by six inch opening is cut out of a piece of heavy plastic, rubber, or cardboard, may be used, but make sure the paint does not run.

Place blazes at least six feet high, or as high as you can comfortably reach, on trees. Blazes should be slightly higher for trails that are popular winter routes. Avoid placing blazes on dead trees, as the blaze will be lost if the tree falls. With white blazes, avoid light colored trees such as birches because the blaze will not show up well. Instead, pick suitable dark trees which will provide contrast. If dead trees or birches are all that are available on your trail, you will need to return frequently to ensure that blazes are visible and that bark has not peeled, thereby removing your blaze. You will need to touch up these blazes more frequently than on other trails. Do not paint arrows or directional signs, only a single vertical blaze. When a stream crosses the trail, be sure a blaze is clearly visible on the opposite side of the stream. Otherwise, hikers may not cross in the right place and will lose the trail. Blazes should not be painted on rock or above treeline. If you have any questions, please contact the Trails Department.

Standard blaze 2 X 6 inches, 6 feet from ground

Paint Blaze

You should inspect the trail ahead of you for the best placement of blazes. Blazes should guide hikers toward them, not point the direction to go. Much time can be saved if you can have a person ahead of you locating old blazes or locations for blazes. Walk through your trail blazing in one direction and then at the end turn around and blaze in the other direction. Pick out trees that will be clearly visible to hikers some distance ahead. Trim brush that may obscure the blaze. Try to avoid placing blazes on both sides of the same tree, because two blazes will be lost if the tree falls. If it is not possible to blaze a trail completely in one day, try to complete sections between junctions. If blazes end in the middle of the trail, hikers may become confused and think they are lost.

The distance between blazes (blaze interval) depends on the section of trail. In the woods, the blaze interval depends on how well defined the tread is and the nature of the woods. In open hardwoods, blazes should be placed so they can be seen from one blaze to the next (about 30-50 feet). This is especially important in the fall when leaves obscure the trail. In softwoods where there is an obvious tread and trail corridor, blazes can be more widely spaced (100-150 feet).

Placement of blazes is also a matter of judgement and experience. One general rule is that **you should not have more than one blaze at a time within your line of sight.** If unsure of the correct direction to follow on your trail, it is best to brush in the confusing areas with dead branches, downed limbs, or scree walls so that the appropriate direction is clear. Keep in mind that trail marking is for the benefit of someone who is not familiar with the trail or terrain. However, do not overblaze and make your trail look like a highway. **Again, blazes should not be used on rock, above treeline, or in designated Wilderness Areas.**

Before painting the blaze, prepare the surface. Lightly scrape off any lichens, dirt, moss, or loose bark on rough-barked trees with the scraper. On smooth-barked trees, the scrub pad will suffice. Do not cut through the bark on any trees as pitch or sap will ooze out and cause runs or discolor the blaze. If you accidentally do this, abandon the spot and choose another place to blaze. Clean an area slightly larger than the blaze.

You may find it necessary to place blazes over old blazes which are sometimes of a different color. Remove as much of the old blaze as possible with the scraper. If the old blaze is of a different color and is larger than the standard, you can cover the old blaze with grey or brown spray paint before putting on the new blaze. However, when the camouflaging paint wears off, the underlying miscolored paint will reappear. Thus, it may be best to paint over the old blaze with the proper size and color and wait for the remainder of the original blaze to weather away. You may also encounter old axe blazes, but this is no longer an accepted procedure for blazing.

Make blazes two by six inches in size and as neat as possible. They are perhaps the most visible aspect of your handiwork on the trail. Wipe up any spills and runs. Try not to allow paint to accumulate at the bottom of the blaze. It will probably run after you have gone. After drying, any runs can be scrapped off with the scraper. Do not blaze right after a rain or if rain is predicted in 24 hours and do not blaze on wet or damp surfaces. The paint will not properly adhere.

Trail definition. Some of the most serious problems affecting trails are bootleg trails or reroutes, multiple trails, and overly-wide trails. Bootleg trails often develop to cut off switchbacks, to water, or to a view. Hikers will hike to the side of wet areas in the trail widening the trail. They also develop when the trail is poorly brushed and blazed or when blowdowns are not removed. Hikers are simply unsure of the direction and take different routes. Obstructions such as a tree growing in the trail or rocks can cause two or more parallel trails to develop. These situations are not only unsightly but increase the impact of hiking on the environment.

In dealing with these problems, first try to determine why they are happening. Blazes may be faint or misplaced. A blowdown or brush projecting into the trail can force people to take a different direction. After correcting these problems, block off the reroute with brush. Large gnarled logs and dead softwoods with spiny branches are particularly effective. Tired hikers will usually take the path of least resistance. Allow new growth to come into the reroute and minimize brushing the entrance to it so the shortcut is less visible. Where a trail diverges in two, for example around a tree in the trail, brush in the least usable of the two routes. Above treeline, small dead trees, if you can find them, can be used to block reroutes. These should be weighted down with rocks to keep them from blowing away. Also, in alpine areas, if you make the intended trail easy to walk on by removing pebbles and other rubble, hikers will be more likely to stay on it. The material removed can be used to cover the bootleg path.

Hikers will also sometimes avoid using rock or log steps, no matter how clear and well placed they are. If vegetation along the steps is killed due to overuse, the soil will erode, undermining the steps. In these cases, scree consisting of large rocks should be placed alongside the steps to contain hiker travel on the steps. Hikers may, nonetheless, step over the walls in which case they should be built higher. Make sure that all scree is large enough and secure enough not to be knocked loose if kicked or stepped on. In addition, brush and rotted or gnarled logs can be placed alongside the steps making it unattractive to step off the trail.

An effort should be made to minimize scree walls in alpine areas. However, a trail two feet in width with scree walls is preferable to one 25 feet across without them. Gather loose rocks and rubble from piles of scree or bare rock piles only. **Do not dig rocks up out of the trail or in vegetated areas adjacent to the trail. Walk on stones when off the trail looking for suitable rocks. In addition, many tiny alpine plants depend on rocks for shelter. Therefore, do not pull up rocks that have growth around them.** Make a six inch high wall on each side of the tread, placing rock lichen-side up After defining the trail tread with the scree walls, place rocks outside the scree walls

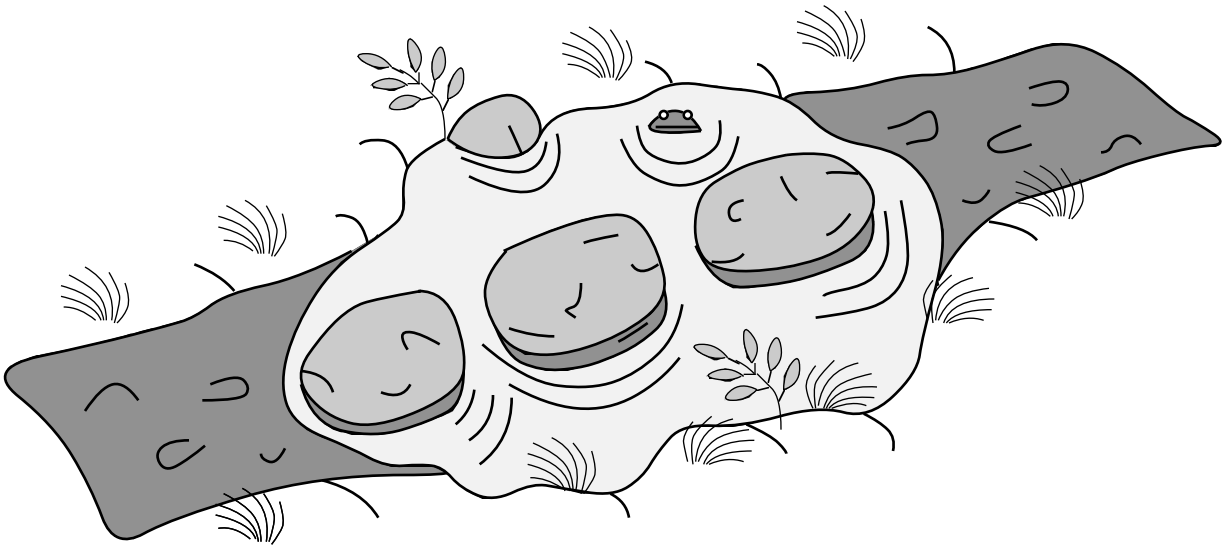
to make those areas appear unattractive for hiking. Scree walls can concentrate water flow on the trail, so that it may be necessary to put in soil waterbars after building scree walls. Well placed cairns are also helpful in defining the trail in alpine zones. Studies indicate revegetation will occur, although slowly, in impacted areas in the alpine zone if hikers can be kept off them.

Bootleg campsites will be encountered alongside the trail. Some trails pass through Forest Protection Areas (FPAs), formerly known as Restricted Use Areas (RUAs), or are located in Wilderness Areas. Off-trail camping is not permitted within 200 feet of these trails, within 200 feet from water, within one quarter mile of facilities and roads, and must be below treeline. Camping in these areas is illegal. These regulations are designed to disperse off-trail camping over a large area rather than being concentrated along the trail or around facilities. Sites well off the trail are less likely to be seen and used again and thus should recover quickly. Efforts should be made to obliterate bootleg campsites, although Adopters have found this difficult to do. Break up and disperse fire-rings and ashes, making sure they are cold first. Pick up any litter. Brush in the site with large logs and dead trees hauled in from the woods. These, though, are often subsequently cleared away or used for firewood. Small trees can be transplanted into the site, although unfortunately these may not survive or may be cut. "Planting" rocks in the site is an effective approach, although it is time consuming. Find large rocks and boulders and partially bury them in holes. Then place rock rubble and brush over the site. With time, the site should revegetate.

Trails in wet areas. Almost all low sections of trails will pass through areas of wet terrain. Higher up, many trails pass through mountain bogs. These areas are often muddy, slippery, or have puddles of water on the trail treadway. Hikers want to avoid getting their boots muddy and will walk to the side of the trail tread. This results in destruction of vegetation along the tread and progressive widening of the trail. There are a number of techniques that can be applied to trails in wet areas that will help stabilize the damaged soils and allow trailside plant life to recover. The most commonly used techniques are step stones, rock treadway, and bog bridges. After receiving appropriate training, and if time allows after basic maintenance has been completed, most Adopters can build stepstones and rock treadway. Some may wish to undertake bog bridge construction working in conjunction with a trail crew or after taking a skills session on building bog bridges.

Before employing one of these techniques, investigate the drainage of the area. In many cases, installing proper drainage will correct the problem. Water accumulates on the trail because the treadway is lower than the surrounding terrain. Look for a low end which can be ditched so the water flows off the trail. If you detect any slight flow to the water, drain the area with waterbars. Another technique is to dig drainage ditches along both sides of the tread. Throw any soil onto the tread, even if it is wet and muddy. Eventually, it will dry out and build up the tread.

Step stones are rocks set into the mud at short intervals to provide a stable treadway. Large rocks (greater than 12 inches across) with a flat surface which is placed upwards are preferable. Set the step stones so that they are stable, which means they can be jumped on and do not move. They should not protrude too high above the ground nor be so low they become covered with mud and water. If there is sufficient rock in the vicinity, you can build a rock treadway. Many rocks are set side by side in a flagstone manner. The rocks can be set in a wooden frame called a rock box, but if you can find large square rocks, such a frame is not needed.

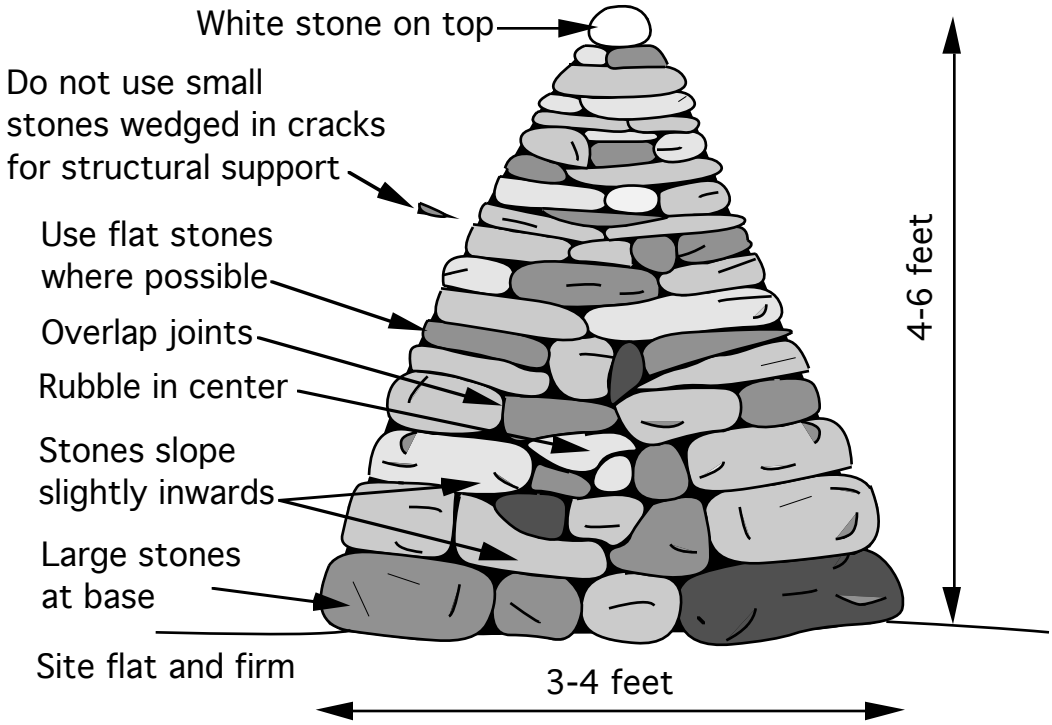


Step Stones

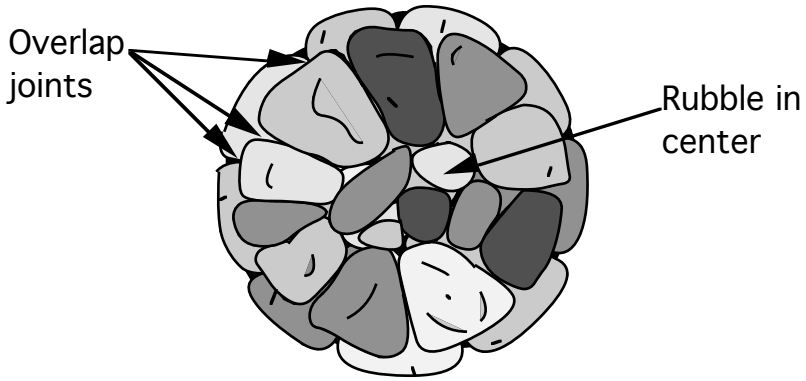
Bog bridges are used in extensive boggy areas or where rock is scarce. To learn more about bog bridges, you should consult one of the trail building manuals or attend a skills session. Broken bog bridges are a safety hazard and should be removed. Bridges with broken stringers or with spikes showing should be placed out of sight off the trail removing the spikes and carrying them out so they can be reused. Inform the trails office of the removed bog bridge. If a bog bridge has deteriorated, determine whether drainages and stepstones can be used in place of a bridge. If so, these should be installed making it unnecessary to periodically replace the bog bridge.

Cairns. Cairns are rock structures used to mark trails in treeless areas. They are an important safety feature above treeline where the trail may not be visible in fog or storms. They are effective year round because of their visibility even under snow and ice conditions of winter. Finally, they protect the environment in alpine areas by keeping hikers on the trail.

On trails that are fairly straight, cairns should be spaced about 100-200 feet apart. The distance should be less, about 50 feet, in areas subject to heavy fog. Trails that are curved or have bends present a special problem. If there is a bend in the trail between cairns, hikers will take a straight line between cairns, cutting off the bend. Thus, cairns should be placed at turns or bends in the trail to keep hikers on the trail. Cairns should be placed in conspicuous locations such as a knoll or ledge. Cairns placed in optimal locations against the skyline are visible for a mile or more. Cairns should be about five feet high. They should be fairly squat for stability, almost as wide at the base as they are high.



Cairn Vertical Cross Section



Cairn Horizontal Cross Section

Building cairns is time consuming and, like much rock work, as much an art as a science. Taking the time to make a well-built cairn will save time in the long run by reducing the necessity of repairing or rebuilding the cairn. Large, flat rocks should be used in cairn construction. Locating and carrying suitable rocks can take as long as building the cairn. When collecting rocks, avoid disturbing and stepping on alpine growth. Use as large stones as possible for the base. Each layer should slope slightly to the center of the cairn, so that gravity will stabilize the cairn. Fill the center of the cairn with rubble (bigger stones are better as small ones will condense together allowing the cairn to collapse in on itself). Build up successive layers making sure that each joint is bridged by a stone. Each stone should also have at least three points of contact with underlying stones for stability. Wedging small stones into cracks for support is not a good practice. Shifting produced by wind and frost action will eventually cause these small pieces to come out and the cairn to collapse. In winter, wind blowing against snow is sufficient to topple an unstable cairn. A test of a cairn's stability is to stand on it. After the cairn is built, you can try putting small stones in gaps for aesthetic reasons. Search for a white rock to place on top of the cairn for visibility.

TOOLS USED IN TRAIL WORK AND WHERE TO GET THEM

Tool cache information. The AMC has a large quantity of tools available for use on your work trips. These are located in the tool caches and may be borrowed by Adopters. Tools should be signed out and **returned promptly** after each trip because they are used by other Adopters and trail crews. When tools are not returned, another Adopter is denied the opportunity to use them and the AMC must expend scarce funds to replace them. The locations of the tool caches are listed below. The combination for all tool cache locks is 1876 (the date printed on the Adopter t-shirt).

Tools are available year-round except at Camp Dodge. You can obtain tools from Camp Dodge and the caches from mid-May through the weekend **prior to** the last week of September. When Camp Dodge is closed, you can obtain tools at the Pinkham Notch Visitor Center. Please call ahead for these. You do not have to make reservations for tools with exception of the Pinkham Notch Visitor Center. If the tool needs of a group would use all of a particular tool(s) in a cache, please obtain the tools from Camp Dodge.

Location of Tool Caches

Franconia Notch Tool Cache. From Rt. 93, turn into Lafayette Place Campground Center and go to the right side of it (past the bathrooms); straight ahead is a small outbuilding with a small tool box on the left hand side (the cache).

Crawford Depot Tool Cache. Rt. 302 in Crawford Notch, see the Highland Center and the Depot; the Clivus building is right next to the Depot; the cache is in the back and outside of the Clivus building.

AMC Cold River Camp Tool Cache. Rt. 113 in Chatham, from the south, turn left at the second entrance to the Camp; the cache is located at the first building on your left, it's outside the building at the end.

Speck Pond Tent Site, No. Mahoosucs. Talk to shelter caretaker. They can be found either underneath the caretaker's tent platform or underneath Speck Pond Shelter.

Camp Dodge Volunteer Center. (End of May through the weekend prior to the last week of September): Rt. 16, four miles north of the Pinkham Notch Visitor Center (between Gorham & Jackson), turn at the sign onto a dirt road, when road splits, go straight (not right); tool shed is right next to the parking area. The tool shed is usually unlocked. See the Camp Dodge Coordinator if it is locked. Call Camp Dodge (603-466-3301) for the exact May opening date for the Camp Dodge tool cache.

Pinkham Notch Visitor Center. (Last week of September through the end of May): Rt. 16 between Gorham & Jackson. This cache is available to take the place of the Camp Dodge cache during the off season only. Call the North Country Trails Volunteer Coordinator ahead of time to make arrangements for picking tools up. 603-466-2721 x192. If leaving a message, leave your name, day and evening contact information, day/time you'll be picking up the tools, and specifically what tools and how many of each that you'll need. The Trails Volunteer Coordinator will contact you to confirm the arrangements. Pick up and return tools to the Programs building, unless otherwise arranged.

USFS Saco Ranger Station. From Rt. 112, the Kancamagus Highway, turn into the main entrance and stay to the right (signed as Authorized Vehicles Only). Pull into the garage area on the right. Tools are located at the far left hand side of the garage building in a large, red, wooden toolbox.

Most Adopters buy at least some of the most frequently used tools (purchases are tax deductible). Hardware stores and Sears, Roebuck & Co. are good sources for basic tools. For more

specialized tools, there is a list of suppliers of tools, equipment, and supplies for trail maintenance in *The Complete Guide to Trail Building and Maintenance*. Check at the trails office for catalogs of forestry suppliers. The trails office may put together an end or beginning of the season tool order. Adopters can join in on this order to obtain cheaper, bulk-purchase rates. By owning your own tools, you have what you are most comfortable with, can properly maintain them, and have them available when needed. Experience has shown that when buying tools, it pays to purchase high quality tools that will do the job and last, even if they are more expensive. Consider putting a bright color on a portion of your tool to make it easier to find on the trail or in the brush if you misplace it.

If you are working alone, it is obviously difficult to carry enough tools to do everything on one work trip. Thus, on a given work trip, plan to do a specific task. When blazing, take only the paint kit and perhaps clippers (there are some clippers available that fit in a sheath attached to the belt which frees the hands when the clipper is not in use). When brushing, take clippers and a bow saw. For drainage work, the hazel hoe will handle most chores. A rock bar and pick mattock can be taken for rock work. If you have people to help you, it is possible to bring a greater variety of tools. If your trail is some distance from the road or above treeline, there are light weight tools such as folding saws and shovels, garden hoes, and light weight mattocks that allow you to take more tools.

Tools. The essential tools for basic maintenance are a pair of clippers, a bow saw, a tool for cleaning drainages (hazel hoes are ideal), and a blazing kit. A brief description of the commonly-used tools and their uses is provided below. Keep in mind that improper use of a tool can result in serious injury. Many of the skills sessions provide instruction on the safe and proper use of tools.

Clippers, pruning shears, or lopping shears. These are one of the primary tools of Adopters. They come in a variety of types and the ones used depend on the work to be done and the preferences of the Adopter. The handles may be made of wood, steel, or aluminum. The cutting heads are either the sliding blade-and-hook type or the anvil type. Some have simple pivot actions while others have compound or gear-driven actions that provide increased cutting power. Most clippers provide a one to two inch diameter cut. Pole clippers have a six to eight foot handle. These are useful for cutting high limbs along ski touring trails. Small hand clippers or pruners are useful for light pruning and can be carried in a pocket. They are especially useful for pruning krummholz above timberline.

Bow saws and pruning saws. These are also among the most frequently used tools and again come in a variety of shapes and sizes. Most have chrome-plated steel or aluminum frames and blades ranging from 21 to 36 inches. Some are collapsible or folding and can easily be carried in a pack. The smaller saws are useful for cutting saplings and limbs that are too large for the clippers. The larger saws are used for cutting blowdowns. By making an undercut in addition to the top cut, a sharp bow saw can quickly cut leaners 12 inches in diameter. Pole saws are available for cutting high limbs. Non-folding saws can be tied to the back of a pack. Adopters use different types of sheaths, such as a segment of garden hose, cardboard, cloth, or aluminum, to cover the blade.

Pick mattock. The pick mattock is one of the most important tools used for basic maintenance in the White Mountains because of the large numbers of rocks encountered. It is a heavy, sturdy tool with an adze head and a pick on the other side. It is favored by most maintainers because it can be used for cleaning waterbars and drainages and for prying out rocks when they are encountered. A cutter mattock has a cutter blade instead of a pick and is used to dig through rocky soils and roots.

Hazel hoes and grub hoes. These tools are used for cleaning waterbars, cleaning drainage ditches, and sidehill grubbing. A hazel hoe has a six to eight inch wide adze blade and a curved handle. Grub hoes have a narrower blade and are essentially mattocks without a pick or cutter blade. Garden hoes with the handle shortened represent a lightweight alternative.

Shovels. Shovels, which come in different forms, are useful for removing loose soil from drainages and putting in new soil waterbars and side ditches. Shovels should not be used for prying

out rocks as they may break. A pick mattock or rock bar should be used to remove the rock. Some maintainers slightly sharpen the shovel blade to facilitate cutting through small roots. Small folding shovels or foxhole shovels are light and can be carried in a pack.

Rock bar. Rock bars or pry bars are used for moving boulders or large rocks. Twelve to 18 pound rock bars are available. With a suitable log or rock for a fulcrum, the rock bar used as a lever can move very heavy rocks and boulders. Take care that in moving large rocks, they do not fall on your feet or wedge a leg. Do not allow a rock to roll downhill out of control, as it can gain tremendous speed and momentum greatly endangering people and vegetation below.

Axe. The axe is used in trail work for cutting logs for trail reconstruction. It is also used for removing blowdowns. A three and a half pound, single bit axe head is most commonly used in trail work. Old or nicked axes, referred to as root axes, are used for cutting out roots. Axes are safer and more efficient when kept sharp. Axes should always be sheathed when not in use.

Swizzle stick. The swizzle stick or weeder consists of a straight or serrated blade attached by one or both ends to a long handle. This tool is used for clearing brush and low growth along trails. Because swizzles are swung like a golf club, it is important that the user maintain a safe distance from other people. It is recommended that the nuts that are supplied with the swizzle be replaced with aircraft style nylon insert lock nuts before going out into the field. You should also carry replacement nuts and bolts and the tools needed to install them. Never lay an uncovered swizzle on the ground; lean it against a tree.

A variety of other tools are used for specialized purposes in trail work. These include bark spud or peeler, chainsaw, crosscut saw, digging bar, fire rake, the McLeod which is a combination rake and hoe, pick, and Pulaski which has a single bit axe blade and a grub hoe blade.

SAFETY WHILE WORKING

The use of tools in trail maintenance carries some risks and hazards that Adopters should be aware of. Listed below are some of the risks and recommended safety gear that Adopters should consider including in their rucksack. Safety equipment can be obtained from the forestry suppliers and helmets are available in all of the Adopter tool caches. Basic safety equipment for all trail work includes long pants, sturdy boots, work gloves, and other appropriate clothes for the weather. Maintain tools in good working condition; know your abilities and limits; and take breaks before you are too tired. Besides protecting yourself, it is important to be aware of anyone near you when you are using tools. It is also recommended to carry a first aid kit when working and to complete wilderness first aid training every two years.

The chart below outlines the required (R) and strongly suggested (SS) safety equipment for all AMC trails staff and AMC trails staff-led trail programs. It is highly recommended that Adopters abide by the same standards to prevent the potential for serious injury. Approximately 6-8 helmets will be available at each cache, with more available at the Camp Dodge cache.

Safety Equipment

(Modified from the AMC White Mountain Trails Department Personal Protective Equipment Policy, February 2005)

R= Required
SS= Strongly Suggested

Task	Risks	Safety Equipment
Drainage Cleaning	Back strain, loose footing, potential overhead hazards, flying bits of dirt, sharp branches	**R**: Boots, Long Pants, **SS**: Gloves, Safety Glasses, Helmet
Brushing	Bees, eye pokes, loose footing, blisters, sharp branches, sharp tools, falling limbs, flying wood chips	**R**: Boots, Long Pants, Helmet (If overhead hazards exist) **SS:** Gloves, Safety Glasses, Helmet
Blazing	Sharp branches, loose footing, paint in your eyes, potential overhead hazard	**R**: Boots, Long Pants **SS:** Safety Glasses, Gloves, Helmet
Alpine Work	Crushing hand injuries, sharp rocks, loose footing, intense sun, cold weather	**R**: Boots, Long Pants, Gloves **SS**: Helmet
Axe Use	Sharp tools, dull tools*, loose footing, blisters, falling trees/limbs, sharp branches	**R**: Boots, Long Pants, Helmet (If overhead hazards exist) **SS**: Helmet, Safety Glasses
Chainsaw Use**	Kickback, severe lacerations, falling trees/limbs, flying wood chips, hearing loss***	**R**: Helmet, Ear Protection, Safety Glasses and/or Helmet Mounted Face Guard, Gloves, Long Pants, Leather Boots, Chainsaw Chaps, 1st Aid Kit
Rock Work	Crushed fingers and toes, back strain, loose footing, head injury from tools/rocks/trees/limbs, abrasions, rolling stones	**R:** Boots, Long Pants, Safety Glasses, Helmet **SS**: Gloves
Wood Work	Sharp tools, slippery logs, rolling logs, back strain, loose footing, sharp branches, crushing injuries, abrasions, flying bits of wood	**R:** Boots, Long Pants, Safety Glasses, Gloves (if using PT Materials), Helmet **SS:** Gloves
Brush-Cutter/Weed-Whacker Use **	Severe lacerations, falling branches, hearing loss***, flying bits of wood/plants, loose footing, sharp branches	**R**: Helmet, Ear Protection, Safety Glasses and/or Helmet Mounted Face Guard, Gloves, Long Pants, Leather Boots, Chainsaw Chaps, 1st Aid Kit

*Dull axes may glance off your target and inflict serious injury.
**Chainsaw, brush cutter, and weed whacker users must be properly trained and take a chainsaw safety certification course. These courses are available through the National Park Service, AMC, Forest Service, and State agencies. Chainsaw users should not work alone. Adopters must use their own chainsaws.
***Sustained use of chainsaws without hearing protection causes deafness.

FIRST AID

It is likely that at some point you will encounter ill or injured hikers. In addition, Adopters, because of the nature of their work and use of tools, are subject to injury. Thus, Adopters should have some knowledge of first aid and carry a first aid kit. The AMC offers several courses and workshops on wilderness first aid. You can purchase one of the many commercially-available first aid kits or assemble your own kit more cheaply by buying items individually at a pharmacy. It is important to know what is in your first aid kit and how to use the item.

First Aid Kits

The following items should be in your first aid kit at all times. Your kit must also be with you at all times. Extra supplies are in the Camp Dodge tool shed and/or in the trail's bay.

In the main pocket:

Absorbing
4 triangular bandages*
3 2x4.5 yd. cling gauze*
6 4x4 gauze pads*
6 2x2 gauze pads
1 5"x 9" trauma dressing*
2 ace bandages*
2 maxi pads
2 combine gauze
6 safety pins
In a quart ziplock
  8 OB applicator tampons

Sticky
3 rolls 1/2 inch tape and DUCT Tape
1 roll 1 inch tape 1 roll 2 inch tape*
1 tube Neosporin
In a quart ziplock
  30 bandaids*
  3 large bandaids*
  12 butterfly bandages
  2 pkg moleskin*
  1 pkg second skin
In a quart ziplock
  6 alcohol pads*
  6 iodine pads*
  2 baby tooth brushes

Drinking (in a double quart ziplock)
1 bottle of bleach (diluted 1:1 water & bleach)
1 bottle of Polar Pure
2 Potable Aqua*

Main pocket (Cont.)

Relief
6 Pepto tabs
8 Benedryl caps*
10 Advil*
10 Tylenol*
3 Alkaseltzer
1 insta glucose (or Cake Frosting)

Waste
2 gallon ziplocks
4 quart ziplocks
2 blue bags

In the outside pocket:

Glove bag
8 pairs of gloves*

Emergency
1 Sam Splint*
Note Pad &Marker*
2 thermometers (disposable)
2 Epi-pens
Tweezers*
1 cold compress*
Trauma shears*
1 pocket mask*
1st Aid handbook*
Lighter*

Records
Incident Reports
Patient Care Form
Pen, pencil, and permanent note pad & marker*

All Items marked with an"" are minimum requirements for all 1st Aid Kits – feel free to include additional items if desired.

You should also be aware of three diseases that can affect those who spend extensive time in the backcountry. The intestinal protozoan parasite *Giardia lamblia* causes severe intestinal distress and diarrhea. It is spread by cysts present in drinking water. Although it is present in beaver populations in the White Mountains, the most common source of infection is improper disposal of human waste. It is always recommended, therefore, that water be treated before drinking it. This can be accomplished by bringing water to a boil for 20 minutes, treatment with an iodine-based disinfectant, or filtering with a water filtration device (be sure the filter pore size is sufficiently small to retain *Giardia* cysts).

Lyme disease is caused by a bacterial spirochete (*Borrelia burgdorferi*) which is transmitted by the "deer tick" (*Ixodes dammini*). This tick is much smaller than the common American dog tick. The typical early symptom of the disease is a slowly expanding red rash along with flu-like symptoms. The disease is easily treated with oral antibiotics at this stage. If left untreated, more serious cardiac, neurological, and arthritic problems can develop. Although the disease is most prevalent along the coastal areas of New England, it is wise to take preventive measures whenever in the outdoors. Wear protective clothing such as long pants. Insect repellents sprayed on clothing may be helpful. After leaving the woods, check yourself for ticks. If one is found, remove it intact with tweezers and save it. Clean the site with an antiseptic and inspect the site for a circular red rash over the next month.

Rabies is a viral disease which affects the nervous system. The incidence in humans in the United States is very low, but because the disease is fatal once symptoms develop, it is best to be aware of it. In addition, rabies is now present in southern New England and gradually moving northward into Vermont and New Hampshire. It is present primarily in raccoon populations but is also transmitted by several other species of mammals including skunk, bat, fox, coyote, bobcat, dog, and cat. Most fatal cases in recent years have been from bites of bats. When on the trail, avoid any animal that is behaving suspiciously or erratically or does not show fear of humans. If bitten, wash the wound vigorously. Contact the local ranger station or department of health. Post-exposure immunization with modern vaccines is highly effective and painless.

WHEN IT IS TIME TO LET GO

There will come a time when you can no longer take on the responsibility of maintaining your trail. This could be due to your leaving the area, increased demands of family or career, changing lifestyles, health, or age. For many, the decision to give up a trail into which you have put so much personal effort is very difficult. Try to resist the temptation to hold onto your trail when you can no longer devote the necessary time to maintain it. Keep in mind that many are depending on you to keep the trail opened and maintained every year. Don't do yourself, others, and the trail a disservice by holding on to a trail you can no longer maintain. If you are no longer able to maintain your trail, please inform your Region Leader or the North Country Trails Volunteer Coordinator. If you do so, a new Adopter can be assigned before the trail undergoes deterioration. There is no dishonor in stepping down and passing the torch. The AMC and all who have hiked your trail are grateful for the hard work you have contributed.

FURTHER READING

The books listed below provide additional information on topics related to hiking trails including maintenance, history, and etiquette. Most of these books and many others are available from the Appalachian Mountain Club and can be purchased at the Pinkham Notch Visitor Center. In addition, there are many useful fact sheets on topics such as trails, wildlife, shelters, weather, water, and many others prepared by the Forest Service and AMC and available at Pinkham Notch or the Forest Service District offices.

AMC White Mountain Guide. 27th ed., Appalachian Mountain Club, Boston, MA, 585 pp., 2003.

Birchard Jr., William and Proudman, Robert D. Trail Design, Construction, and Maintenance. The Appalachian Trail Conference, 2nd ed., Harpers Ferry, WV, 210 pp., 1998. *This book should be followed by those maintaining sections of the Appalachian Trail.*

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APPENDIX A

TRAIL MAINTENANCE STANDARDS

AMC TRAILS

These standards are not comprehensive but address the routine maintenance tasks generally performed by Adopters.

Treadway or footpath. The treadway of the trail should be maintained so as to minimize its impact on the natural resources of the trail and its surroundings.

Cleaning drainage. Log and rock waterbars, drainage dips or soil waterbars, ditches, and streams crossing the trail should be cleared of leaves, branches, rocks, and silt at least once annually. Backfill waterbars on downhill side. Clean outflow of drainages. In muddy or boggy areas, place drainage ditches or step stones.

Trail definition. Where multiple trails have developed, switchbacks are cut off by shortcuts, or the trail has widened, block off reroutes with brush and stones. Remove blowdowns, obstructions, or drain wet areas that are bypassed by hikers. Be sure that the trail is clearly marked. Build scree walls in alpine trails that need definition.

Trail clearing. The trail should be kept clear of vegetation and obstructions which unnecessarily impede foot travel. The trail should be cleared to such a width and height that a hiker with a pack can walk the trail without undue difficulty. In wooded areas, the trail corridor should be four feet wide and eight feet high. Blowdowns, brush, and limbs should be cleared annually. Cut brush and trees flush with ground. Cut limbs flush with tree trunks. Remove all cut trees, branches, and debris from the trail. Take safety precautions and use chainsaw only if certified.

Trail marking. Trails should be continuously and neatly marked using standard techniques in such a manner that a hiker unfamiliar with the area can discern the direction of the route. Paint blazes are two by six inch vertical rectangles placed at least six feet high. Colors: Appalachian Trail - white; trails connecting directly with the Appalachian Trail - blue; all other trails – yellow. All blazes are only single vertical blazes. Blazes should be neatly painted with sharp corners and clean edges. Blazes are placed at regular intervals but you should not be able to see more than one blaze at a time when walking a trail. Cairns are used in above-treeline areas to mark the trail where there are no trees or other natural objects on which to place blazes. Cairns should be placed at short, regular intervals, from 100 to 200 feet apart or less in areas subject to heavy fog. Cairns should be stable, able to resist weathering, and high enough to rise above surrounding features and to be discernable through fog. Cairns should be built in straight or gently curved lines. There should be no blazes in Wilderness areas or on rocks.

APPENDIX B

TRAIL MAINTENANCE STANDARDS

FEDERALLY DESIGNATED WILDERNESS AREAS

Federally designated wilderness areas are managed differently from other areas in the Forest and there are special standards for trails in these areas. USFS policy states that groups working in wilderness areas must not exceed 10 people in size. AMC trails that are partially or entirely inside a wilderness area are:

Great Gulf Wilderness - Madison Gulf, Osgood Cutoff, Sphinx, Buttress, Wamsutta, Six Husbands, Chandler Brook, Mt. Clay Loop, Parapet.

Dry River Wilderness - Dry River Cutoff, Davis Path, Stairs Col.

Pemigewasset Wilderness - Bondcliff, West Bond Spur, Desolation, Carrigain Notch, Shoal Pond, Zeacliff, Twin Brook.

Sandwich Range Wilderness - Gleason.

Wilderness boundaries on trails are marked by a long, thin, brown Carsonite post clearly proclaiming the boundary.

The wilderness trail standards were created to retain the wild and primitive character of a wilderness area and to maintain a condition as near as possible as to what existed before human intervention. Adopters working inside wilderness areas should maintain their trails in accordance with these standards and guidelines:

Power tools are prohibited. You must use hand tools for all trail work.

The brushing standard is different. Trails should be brushed minimally. Your brushing should reflect the minimum needed for a hiker to pass through.

Trail width should be no more than 18 inches.

Blazes are no longer routinely used in wilderness areas, and the decision to use them is one that must be made by the Forest Service. The reason for this is that management plans vary from one wilderness area to the next. If you feel your trail needs blazes for the sake of hiker safety or resource protection, contact the trails staff at Pinkham, and they will get a determination on the blazing status of your trail from the Forest Service.

Drainage, as always, should be kept clear. If you do need to add more drainage, waterdips and rock waterbars are preferred.

APPENDIX C

TRAIL MAINTENANCE STANDARDS

ALPINE AREAS

Due to the extremely fragile nature of alpine ecosystems, a different standard for trail maintenance exists in these areas. Those doing work on trails in alpine areas should follow the guidelines below formulated by the United States Forest Service and its cooperators. The guidelines will allow you to perform your trail work in a manner that is sensitive to the alpine area you are working in. They are extremely important in reducing the hiker impact on these rare and fragile environments.

Trail width of 24 inches is standard in alpine areas. The trail must be clearly defined to keep the hiker on the trail and off the alpine vegetation. The trail should be clearly defined through the use of cairns and scree walls.

Cairns are used to mark the trails in alpine areas (see section on cairns for construction and spacing). Place white rocks on top of cairns for visibility. There should be no blazes on rock.

Scree walls are low walls of rock constructed to keep hikers on the trail. They should be used in areas where the tread is poorly defined. Scree walls should be maintained so they are an obvious boundary to the designated tread and do not blend in with the natural surroundings adjacent to the trail. Scree walls should normally be no more than six inches high. When collecting scree, great care must be taken to limit damage to plants. Collect rock away from the area disturbed by hikers and do not use rocks shielding alpine plants. Scree or rock slopes or areas with no apparent vegetation are preferred spots for scree collection. When constructing scree walls, place rocks lichen side up so they fit in naturally.

Drainage should be located to minimize damage to vegetation and to prevent erosion. Where possible, direct the drainage into scree slopes or rocky areas. In fragile areas with vegetation, add rubble (small stones) to the drainage outlet to slow the velocity of the water but not impede effectiveness.

APPENDIX D

WHITE MOUNTAIN TRAILS

AMC MAINTAINED WHITE MOUNTAIN TRAILS

Trails and trail regions within the White Mountain National Forest, New Hampshire State Parks, New Hampshire State Forests, National Park Service AT lands, Maine Bureau of Parks and Recreation lands, Maine Bureau of Public Lands, and private lands.

Trail	Length	Trail	Length
Kinsman Region			
Around-Lonesome-Lake	0.8	Gordon Pond Trail to Mt Wolf Summit (AT)	1.3
Cascade Brook (AT)	3.1	Mt Wolf Summit to Reel Brook Trail (AT)	1.9
Fishin' Jimmy (AT)	2.0	Reel Brk Trail to S Kinsman Summit (AT)	3.5
Indian Head	1.9	S Kinsman Summit to Kinsman Junction (AT)	1.5
Kinsman Pond	2.5	Kinsman Junction to Cannon Mt Summit	3.2
Kinsman Ridge		Cannon Mt Summit to Tramway Parking	2.2
Rt 112 to Gordon Pond Trail (AT)	3.3		
Pemigewasset Region			
		Twin Brook**	2.7
Bondcliff		Twinway	0.8
Wilderness Trail to 3rd stream Xing	2.5	Galehead Hut to S Twin Summit (AT)	2.0
3rd stream Xing to Bondcliff	1.9	S Twin Summit to Bondcliff Trail (AT)	1.3
Bondcliff to Twinway*	2.5	Bondcliff Trail to Zealand Mtn Spur (AT)	1.6
Frost	0.5	Zealand Mtn Spur to Zeacliff Trail(AT)	1.5
Lend-A-Hand	2.7	Zeacliff Trail to Zealand Trail (AT)	0.5
North Twin Spur	1.3	West Bond Spur	
Southern Franconia Region			
		Liberty Spring	
Flume Slide		Bike Path to sharp left turn (AT)	1.4
Liberty Spring Trail to 1st Flume Brook Xing	1.9	Sharp left turn to Franconia Ridge Trail (AT)	1.5
1st Flume Brook Xing to Franconia Ridge Trail	1.4	Lonesome Lake	
Franconia Ridge		Lafayette Place to Cascade Brook Trail Junction (Lake)	1.2
Flume Slide Trail to Liberty Spring Trail**	1.5	Cascade Brook Trail Junction to Kinsman Ridge Trail (AT)	1.1
Liberty Spring Trail to Falling Waters Trail/Little Haystack Summit (AT)	1.9	Osseo	
		Lincoln Woods Trail to 1st switchback	2.1
		1st switchback to Franconia Ridge Trail	2.0
		Whitehouse	0.8
Northern Franconia Region			
		Garfield Ridge	
Falling Waters		Mt Lafayette Summit to Garfield Trail (AT)*	3.7
Old Bridle Path to highest brook Xing	1.6	Garfield Trail to Galehead Hut (AT)**	2.9
Highest brook Xing to Franconia Ridge Trail/Little Haystack Summit	1.6	Greenleaf	
Franconia Ridge		Tramway Parking to Eagle Cliff	1.5
Falling Waters Trail/Little Haystack Summit to Mt Lafayette Summit (AT)*	1.6	Eagle Cliff to Greenleaf Hut	1.2
Old Bridle Path	2.9	Greenleaf Hut to Mt Lafayette Summit*	1.1

Crawford Notch Region

AMC Stewardship Trail	0.2
Around-the-Lake	1.2
Avalon	
Crawford Depot to A-Z Trail	1.3
A-Z Trail to Willey Range Trail	1.5
A-Z	
Avalon Trail to Willey Range Trail	1.0
Willey Range Trail to Zealand Trail	2.7
Cascade Loop	0.2
Ethan Pond	
Trailhead to Ethan Pond (AT)	2.6
Ethan Pond to Shoal Pond Trail (AT)	2.0
Shoal Pond Trail to Zealand Trail (AT)	2.6
Kedron Flume	1.3
Mt Tom Spur	0.6
Mt Willard Trail	1.4
Red Bench	0.3
Saco Lake	0.3
Willey Range	
Ethan Pond Trail to Mt Willey Summit	1.1
Mt Willey Summit to A-Z Trail	2.3
Zeacliff	1.4

Carrigain Region

Carrigain Notch	
Signal Ridge Trail to Nancy Pond Trail	4.1
Nancy Pond Trail to Stillwater Junction	1.6
Desolation	1.9
Gleason	2.2
Hancock Loop	
Cedar Brook Trail to N Hancock Summit	1.8
N Hancock Summit to Loop junction (via S Hancock)	1.9
Shoal Pond	
Stillwater Junction to 2nd brook Xing	2.4
2nd brook Xing to Ethan Pond Trail	1.6

Southern Presidentials Region

Davis Path	
Rt 302 to Mt Crawford Summit	2.5
Mt Crawford Spur to Stairs Col Trail	1.8
Stairs Col Trail to small brook Xing	2.5
Small brook Xing to Mt Davis Summit	2.2
Mt Davis Spur to Mt Isolation Summit	1.3
Mt Isolation Spur to Glen Boulder Trail	2.8
Dry River Cutoff	1.7
Mizpah Cutoff**	0.7
Mt Eisenhower Loop	0.8
Stairs Col	1.8
Webster Cliff	
Rt 302 (Crawford Notch) to 1st open ledge (AT)	1.8
1st open ledge to Mt Webster Summit (AT)	1.5
Mt Webster Summit to Mt Jackson Summit (AT)	1.4
Mt Jackson Summit to Mizpah Hut (AT)**	1.7
Mizpah Hut to Crawford Path (AT)**	0.9
Webster-Jackson	
Rt 302 (Crawford Notch) to the Fork	1.4
The Fork to Mt Jackson Summit	1.2
The Fork to Mt Webster Summit	1.0

Mount Washington Region

Alpine Garden*	1.8
Boott Spur	
Tuckerman Ravine Trail to Harvard Rock Outlook	1.7
Harvard Rock Outlook to Davis Path*	1.2
Boott Spur Link	0.6
Camel*	0.7
Chandler Brook	0.9
Crew Cut	1.0
Davis Path	
Glen Boulder Trail to Crawford Path*	1.9
Direttissima	1.0
George's Gorge	0.8
Glen Boulder	
Rt 16 to Glen Boulder	1.6
Glen Boulder to Davis Path*	1.6
Huntington Ravine	
Tuckerman Ravine Trail to First Aid Cache	1.3
First Aid Cache to Auto Road*	1.1
Lawn Cutoff*	0.4
Liebeskind's Loop	0.6
Lion Head*	1.6
Mt Monroe Loop*	0.7
Nelson Crag	
Old Jackson Road to Auto Road/ Hairpin Turn	1.7
Auto Road/Hairpin Turn to Mt Washington Summit*	1.9
Old Jackson Road (AT)***	1.9
Raymond Path	2.4
Southside*	0.3
Trinity Heights Connector (AT)*	0.2
Tuckerman Crossover*	0.8
Wamsutta*	1.7

Northern Presidentials Region

Air Line	
Valley Way to Scar Trail	2.4
Scar Trail to Cutoff	1.1
Cutoff to Mt Adams Summit*	0.8
Air Line Cutoff*	0.2
Buttress	1.9
Caps Ridge*	2.6
Castle	
Rt 2 to The Link	3.5
The Link to Mt Jefferson*	1.5
Madison Gulf	
Auto Road to Osgood Cutoff (AT)	2.1
Osgood Cutoff to Parapet Trail	2.7
Mt Clay Loop*	1.2
Mt Jefferson Loop*	0.7
Osgood	
Great Gulf Tr to Osgood Cutoff	0.8
Osgood Cutoff to to Daniel Webster-Scout Trail (AT)	2.0
D Webster-Scout Trail to Madison Hut (AT)*	1.0
Osgood Cutoff (AT)	0.6
Parapet*	1.0
Pine Link	
Dolly Copp Rd to lower Howker Ridge Trail Junction	2.4
Lower Howker Ridge Trail Junction to Madison Hut*	1.6
Six Husbands*	2.3
Sphinx	1.1
Star Lake*	1.0

Carter Region

Carter-Moriah	
Gorham/Bangor Rd to Mt Surprise	2.1
Mt Surprise to Mt. Moriah	2.4
Mt Moriah to Imp Shelter Spur Trail (AT)	2.1
Imp Shelter Spur Trail to Middle Carter (AT)	2.5
Middle Carter to Zeta Pass (AT)	2.1
Zeta Pass to Nineteen Mile Brook Trail Junction (AT)	2.6
Lost Pond (AT)***	0.9
Mt Evans	0.7
Square Ledge	0.5
Wildcat Ridge	
Route 16 to Gondola (Wildcat D) (AT)	2.1
Gondola (Wildcat D) to Nineteen Mile Brook Trail (AT)	2.8
Wildcat River	
Trailhead/Bog Brook Junction to Wild River Trail	1.9
Wild River Trail to Carter Notch Hut	1.7

Royce-Baldface Region			
		Rim Junction to W Royce Summit	2.5
Baldface Circle		Eagle Link	2.7
Rt 113 to Eagle Cascade Link	2.1	East Royce	1.5
Eagle Cascade Link to Eagle Link/ Meader Ridge Trail Junction	1.6	Meader Ridge	2.0
		Mt Meader	3.0
Eagle Link/Meader Ridge Trail Junction to S Baldface Summit*	2.4	Royce	
		ME 113 to Laughing Lion Trail	2.7
S Baldface Summit to Circle Junction/ Emerald Pool*	3.0	Laughing Lion Trail to W Royce Summit	1.6
Basin Rim		Royce Connector	0.2
Mt Meader to Rim Junction	1.4		
Southern Mahoosuc Region			
		Trident Col Camp to Peabody Brook Trail (Dream Lake) (AT)	2.7
Austin Brook	3.5		
Centennial (AT)	3.1	Peabody Brook Trail (Dream Lake) to Austin Brook Trail (Gentian Pond) (AT)	2.2
Dryad Falls	1.5		
Giant Falls Spur	0.3	Austin Brook Trail (Gentian Pond) to Mt Success Summit (AT)	2.8
Mahoosuc			
Rt 16 (Gorham) to Centennial Trail	3.3	Mt Success Summit to Carlo Col Trail (AT)	2.4
Centennial Trail to Trident Col Camp (AT)	3.0	Peabody Brook	3.1
		Success	2.4
Northern Mahoosuc Region			
		May Cutoff**	0.3
Carlo Col	2.7	Notch	2.2
Goose Eye	3.2	Old Speck	
Mahoosuc		Rt 26 to Upper Eyebrow Trail Junction (AT)	1.1
Carlo Col Trail to Goose Eye Trail (AT)	1.8		
Goose Eye Trail to Full Goose Camp (AT)	2.6	Upper Eyebrow Trail Junction to Mahoosuc Trail (AT)	2.4
Full Goose Camp to Notch Trail (AT)	1.5	Speck Pond	
Notch Trail to May Cutoff (AT)	2.7	Success Pond Rd to sharp turn	1.4
May Cutoff to Speck Pond Camp (AT)**	0.9	Sharp turn to May Cutoff	1.7
		May Cutoff to Speck Pond Camp	0.5
Speck Pond Camp to Old Speck Summit (AT)**	1.4		

*All or a significant portion above treeline
**Maintained by the AMC Shelter Caretaker nearby
***These are also ski trails requiring wider brushing
AT – Appalachian Trail

Ski Touring Trails – All are in the Pinkham Notch area

Avalanche Brook Ski Trail		Blanchard Loop	0.9
Gulf of Slides to Glen Boulder Trail	1.2	Connie's Way	2.5
Glen Boulder Trail to 2nd Ski Bridge	2.1	Pinkham Notch	0.5
2nd Ski Bridge to Rocky Branch Trail	1.2	Square Ledge Loop	1.3
Rocky Branch Trail to Dana Place	1.1	The Link	0.1

USFS MAINTAINED WHITE MOUNTAIN NATIONAL FOREST TRAILS

TRAIL	LENGTH	TRAIL	LENGTH
Ammonoosuc/Pemigewasset Ranger Districts (to be combined)			
Hiking		Jerico Road	3.2
Ammonoosuc Ravine	3.3	Lincoln Brook	6.9
Benton	3.5	Livermore	2.5
Black Brook	3.5	Little East Pond	1.7
Black Mountain	1.7	Mt. Kineo	1.6
Blueberry Mountain	4.5	Mt. Kinsman	3.9
Boundary Line	0.7	Mt. Osceola	5.5
Carr Mountain	6.2	Mt. Tecumseh	5.4
Cherry Mountain	5.5	Mt. Willard	1.4
Chippewa	1.9	North Twin	4.3
Cobble Hill	3.5	Reel Brook	2.9
Coppermine	2.5	Sandwich Mountain	3.8
Crawford Connector	0.3	Scaur Ridge	1.2
Crawford Path	8.2	Skookumchuck	4.2
Donkey Hill Cutoff	1.0	Smarts Brook	5.1
Drake's Brook	3.2	Stinson Mountain	2.0
East Pond	5.0	Sugarloaf	2.1
East Pond Connector	1.7	Three Ponds	6.6
Edmands Path	2.9	Trestle	1.0
Gale River	3.7	Tunnel Brook	2.1
Garfield	4.6	Westside	0.9
Gordon Pond	4.8	Zealand	2.5
Greeley Ponds	5.1	*Cross-Country Ski Trails*	
Guinea Pond	4.0	Beaver Brook	7.8
Hale Brook	2.3	Flat Iron	1.3
Hancock Notch	2.4	Lafayette	3.3
Jewell	3.9	Spruce Goose	4.1
Androscoggin Ranger District (includes former Evans Notch Ranger District; some trails will be assigned to the Saco District)			
Hiking		Great Brook	2.7
Albany Brook	1.0	Great Gulf	7.6
Albany Mountain	1.4	Great Gulf Link	0.6
Albany Notch	3.7	Gulfside	5.4
Baldface Knob	1.2	Hastings	2.5
Basin	4.5	Haystack Notch	5.2
Bickford Brook	4.1	Highwater	8.9
Black Angel	7.5	Imp	6.4
Bunnell Notch	2.5	Kenduskeag	4.1
Burnt Mill Brook	2.0	Kilkenny Ridge	20.6
Caribou	5.9	Landing Camp	1.8
Carter Dome	2.7	Ledge	0.7
Cold Brook	4.7	Mill Brook	3.7
Cold River CG to Basin CG Spur	0.5	Miles Notch	6.1
Daniel Webster	3.6	Moriah Brook	5.3
Devil's Hopyard	1.4	Mountain Pond	2.3
Glen Ellis Falls	0.2	Mt. Cabot	3.9

Androscoggin Ranger District (Cont.)

Mud Brook	3.6	Stony Brook	3.6
Nineteen Mile Brook	3.8	Thompson Falls	0.8
North Carter	1.2	Tuckerman Ravine	4.1
Pine Mountain	1.9	Upper Ammonoosuc	1.7
Pond of Safety	3.2	Unknown Pond	5.5
Province Brook	1.6	Valley Way	3.7
Rainbow	2.5	Weeks Brook	4.7
Rattle River	4.2	West Milan	4.3
Red Rock	5.5	Wheeler Brook	3.4
Roost and Spur	1.3	Wild River	7.7
Shelburne	7.2	York Pond	7.4
Shell Pond	0.4	*Cross-Country Ski Trails*	
Slippery Brook	5.0	Hayes Copp	8.7
Spruce Hill	1.8		

Saco Ranger District

Hiking		Mt. Eisenhower	3.0
Attitash Mountain	7.0	Mt. Kearsarge North	3.0
Bald Land	2.5	Mt. Langdon	3.0
Black Mountain Ski	2.0	Mt. Potash	2.0
Bog Brook	2.7	Nickerson Ledge	1.3
Bolles	5.7	Oliverian Brook	4.2
Boulder Loop	2.7	Passaconaway Cutoff	2.0
Brunel	3.4	Pine Bend Brook	4.3
Carter Ledge	3.7	Piper	4.1
Champney Falls	3.1	Red Ridge	3.6
Champney Falls Loop	0.4	Rob Brook	2.0
Church Pond Loop	2.4	Rocky Branch	9.8
Doublehead Ski	1.8	Sabbaday Brook	4.9
Downes Brook	6.0	Sawyer Pond	6.0
Dry River	10.5	Sawyer River	4.8
East Branch	8.0	Signal Ridge	5.0
East Pasture	2.0	Slippery Brook	2.0
Flat Mountain Pond	10.5	Square Ledge Spur	0.5
Guinea Pond	2.0	UNH	5.0
Hancock Notch	5.0	West Side	0.5
Isolation	4.6	White Ledge	4.1
Liberty	4.5	Wild River	3.0
Livermore	3.5	Winneweta Falls	1.0
Lovequist Loop	0.7	*Cross Country Ski Trails*	
McCrillis	3.1	Downes Brook	
Middle Sister	4.7	Nanamocomuck	12.7
Moat Mountain	9.2	Paugus	1.2
Moat Mountain Mineral	1.0	Paugus Link	0.2
Mountain Pond	1.9	Wenonah	1.0
Mt. Clinton	3.3	Wenunchus	1.0

APPENDIX J

HISTORY OF THE AMC WHITE MOUNTAIN ADOPT-A-TRAIL PROGRAM

Compiled by Steve Crowe

1979 Club-wide Trails Chair Ted Brown calls initial Committee Meeting to explore the idea of a White Mountain Adopt-A-Trail Program. Adopt-A-Trail Program begins as a joint project with the White Mountain Forest Service. An appeal for Volunteers appears in Appalachia – Fall 1979.

1980 The Adopt-A-Trail Program begins with the adoption of thirteen trail sections. The first training packet and list of trails available is sent out on May 12, 1980. The first training session is held at PNVC on July 12, 1980. Ten adopters attend the session. Steven H. Smith and Don Sanders (along with the late Charlie Diehl) continue their service through the 25th anniversary of the program. Other adopters of long service are Guy and Laura Waterman and the New Hampshire Chapter.

1981 S.E. Massachusetts Chapter adopts the Lonesome Lake Trail.

1984 Steve Smith becomes coordinator of the Adopt-A-Trail Program. Bob and Leah Devine adopt the Wildcat Ridge trail. Barbara Kukla adopts the Garfield Ridge Trail.

1986 Skills Workshops (later renamed Skills Sessions) are first offered to adopters. Adopters contribute 1,284 hours of work towards maintenance of adopted trails.

1987 Bob and Leah Devine become the coordinators for the Adopt-A-Trail Program, succeeding Steve Smith on September 19, 1987. The program has 33 adopters. The Devines initiate and publish *Adoption Papers*. They also begin to actively promote and publicize the program in a variety of media. The first Adopter Appreciation BBQ is held. Volunteers contribute 2,269 hours of work towards maintenance of 146 miles of adopted trails.

1989 ATC and AMC Skills Exchange Workshop is held at Camp Dodge. The program Central Coordinating Committee is led by Steve Smith, along with Ginny Hughes, Bob Gilcrest, Ernie Forgione, Don MacFarlane, Bob Devine, and Leah Devine.

1991 Section Leaders are organized by Steve Smith and White Mountain Trails Program Manager Reuben Rajala. The first Section Leader training session is held on the Glen Boulder Trail.

1992 Bob and Leah Devine retire as the Coordinators; Under the Devines the program has grown to107 adopters. The Devines have been responsible for assignment of trails, trail inspection, and collection and summation of trail reports, along with publishing *Adoption Papers*. Judy Smith is named North Country Volunteer Coordinator. Section Leaders are Steve Smith, Steve Crowe, Dave Hardy, Birge Dayton, Charlie Blanker, Dave Pollack, Dave Mann, and Frank Pilar.

1993 Donna Brigley becomes editor of *Adoption Papers* succeeding interim editor Bob Gilcrest.

1994 The first edition of the *AMC Trail Adopter's Handbook* appears, edited by Tom Lentz with contributions made by Trails Committee chair Dave Hardy and White Mountain Trails Program Manager Carl Demrow. Other contributors are Bob Devine, Leah Devine, Laura Waterman, Guy Waterman, Steven H. Smith, Steve Crowe, and Carl Gebhardt. The copyright of the Handbook is granted to Thomas L. Lentz and the Appalachian Mountain Club.

1996 Section Leaders, adopters, and staff lead work trips on New Hampshire Trails Day in July. Wind reaches 154 mph on Mount Washington, a record for summer. Section Leaders are Dave

Pollock, Brian Colcord, Donna Savluk, Charles Blanker, Dave Mann, Don MacFarlane, Thomas L. Lentz, Steve Crowe, Scott Beavers, David Chirnitch, Frank L. Pilar, and Dave Hardy

1999 Eight ski trails are added to the program. Volunteers contribute 4,738 hours of work towards maintenance of adopted trails.

2000 Volunteers contribute 5,380 hours of work towards maintenance of adopted trails. The first "10 year fleeces" are awarded.

2002 Volunteers contribute 5,626 hours of work towards maintenance of adopted trails.

2003 Volunteers contribute 7,300 hours of work towards maintenance of adopted trails.

2004 Volunteers contribute 7,479 hours of work towards maintenance of adopted trails. Jeff McCanna succeeds Donna Brigley as editor of *Adoption Papers*. Recognition awards for twenty-year adopters begins.

2005 Volunteers contribute 9,279 hours of work towards maintenance of adopted trails. Fleece jackets are awarded to twenty-year adopters.

2006 Adopt-A-Trail Program partners with White Mountain National Forest, Saco District to adopt eight sections of Saco District trails. The program now maintains 128 trails in 216 sections, totaling 379 miles. Alex DeLucia is North Country Trails Volunteer Coordinator. The Region Leaders (formerly Section Leaders) are Nancy Eaton, Ginger Lawson and Larry Ely, Chuck Braxton, George Brown, Steve Crowe, Brian Donoghue, Frank Benesh, Ron and Rita Rivard, Nathan Duclos, David Pollock, Charlie Blanker, and Scott Monroe and Barbara Kukla.

2007 The ninth edition of the *AMC Trail Adopter's Handbook* is published.

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AMC Trails Program Mission Statement

"The AMC Trails Program is committed to the protection and care of the trails and backcountry campsites of our region and the experiences they provide. Through the high quality work of dedicated volunteers and staff, the trails program promotes stewardship, public service, and ethical recreation."