



TMB Trail Crew Manual

This document sets out basic procedures and policies which are necessary for a member of Team Mount Beauty (TMB) to be inducted and approved to undertake trail maintenance on the Big Hill Mountain Bike Park trail network. Ongoing this manual serves as a reference for trail workers in regard to policies and procedures to be followed.

It is divided into 2 main sections – Equipment, outlining usage and safety aspects of equipment owned and provided by TMB for the purpose of trail maintenance; and Trail Maintenance, outlining activities and safety aspects associated with maintaining our mountain bike trails.

INDUCTION PROCESS

The following is an outline of the key information for inductees to be instructed on in order to become 'approved trail workers' for the different levels. The inductee levels are:

Equipment – to permit use of TMB owned trail maintenance equipment

Trail Grooming – to permit undertaking trail grooming activities on the Big Hill MTB Park trails

Trail Repair – to permit undertaking trail repair activities on the Big Hill MTB Park trails.

Recognising the number of club members who already have extensive experience in the area of Trail Maintenance, assessors can designate and record members as competent approved trail workers based on Recognition of Prior Learning (RPL).

	Delivered By	Key Points	Training Record
Equipment	TMB Trail Committee approved representative	<ul style="list-style-type: none"> • Safe use of equipment, including required PPE • Pre inspection of equipment • Refuelling and fuel selection • Starting, stopping and general use instruction • Routine maintenance, including cord selection and change, filter cleaning, end of use cleaning etc • Basic troubleshooting • Record of use and reporting of equipment issues 	TMB Trail Maintenance Crew Register – Equipment approval
Trail Grooming	TMB Trail Committee approved representative	<ul style="list-style-type: none"> • Trail corridor and clearance dimensions • Explanation of limits of activities • Demonstration of brushcutting and blowing • Demonstration of cutting and hand clearing 	TMB Trail Maintenance Crew Register – Grooming approval
Trail Repair	TMB Trail Committee approved representative	<ul style="list-style-type: none"> • Identification of problems to be rectified • Explanation of limits of activities • Demonstration of drainage improvements • Demonstration of cupping removal • Demonstration of rut rectification • Closing/blocking unapproved short cuts, trail deviations etc 	TMB Trail Maintenance Crew Register – Repair approval

EQUIPMENT

TMB owns and maintains an inventory of equipment, both manual and powered, for use in the maintenance of trails within the Big Hill Mountain Bike Park. It is the responsibility of anybody using the equipment to ensure that they are trained in, and aware of, how to use the equipment in a safe and appropriate manner.

In order to use TMB owned equipment a club member must have undertaken an induction session approved by the TMB Trail Crew Sub-committee.

	Usage	Key Points	Safety/PPE
Handtools including rakehoe, shovel, rake, mattock, hand saw	<ul style="list-style-type: none"> • General trail maintenance and repair • Where physical work is to be done to the trail surface 	<ul style="list-style-type: none"> • Must be used in accordance with TMB trail maintenance guidelines • Trail maintenance activity must be communicated to the TMB Committee • Communicate any equipment maintenance issues to a TMB Trail Crew Sub-committee member. • Must be returned to shed after use, unless approved by TMB Trail Crew Sub-committee • Record use on TMB Equipment Use Register 	<ul style="list-style-type: none"> • Closed toe sturdy footwear • Work gloves • Be aware of your physical situation and clearance from others working in the area
Brushcutter	<ul style="list-style-type: none"> • Trail grooming and repair • For clearing vegetation from the trail corridor 	<ul style="list-style-type: none"> • Must be used in accordance with TMB Trail Maintenance Guidelines • Conduct pre-inspection of equipment • Ensure that correct fuel for the machine is used • Use the appropriate cord 	<ul style="list-style-type: none"> • Closed toe sturdy footwear • Work gloves • Eye and face protection • Hearing protection

		<p>for the machine and task at hand</p> <ul style="list-style-type: none"> • Record use in the TMB Equipment Record • Communicate any equipment maintenance issues to the TMB Trail Crew Sub-committee • Must be returned to shed after use, unless approved by TMB Trail Crew Sub-committee • Record use on TMB Equipment Use Register 	
Powered Blower	<ul style="list-style-type: none"> • Trail grooming and repair • For clearing leaf litter etc off the trail • For clearing vegetation off the trail following brushcutting 	<ul style="list-style-type: none"> • Must be used in accordance with TMB Trail Maintenance Guidelines • Conduct pre-inspection of equipment • Ensure that correct fuel for the machine is used • Must be used in accordance with TMB Trail Maintenance Guidelines • Conduct pre-inspection of equipment • Ensure that correct fuel for the machine is used • Record use in the TMB Equipment Record • Communicate any equipment maintenance issues to the TMB Trail Crew Sub-committee 	<ul style="list-style-type: none"> • Closed toe sturdy footwear • Eye protection • Hearing protection • Dust mask advised

		<ul style="list-style-type: none"> • Must be returned to shed after use, unless approved by TMB Trail Crew Sub-committee • Record use on TMB Equipment Use Register 	
--	--	---	--

Chainsaws

TMB do not have any chainsaws within the equipment assets. It is recognised that there is a need for chainsaws to clear fallen and dangerous trees, however, due to the high danger element of chainsaws and high skill level required for their safe use TMB encourage appropriately skilled members to use their own chainsaws. TMB will supply fuel and bar oil to compensate for use of own equipment.

Users of chainsaws on the Big Hill trail network should be suitably qualified with 'Trim and Crosscut' ticket, wear appropriate PPE and observe all accepted safety practices and procedures.

TRAIL MAINTENANCE

Safety

It is the responsibility of all people undertaking trail maintenance work to be aware of any safety procedures, requirements and practices involved in the general tasks that they are undertaking and those that are specific to any equipment that they use.

General Safety

- Wear clothing and footwear that is suitable for a bush environment and the task being undertaken. Footwear must be closed toe, sturdy and provide adequate grip. Clothing should be considered to provide sun protection and protection against scratches etc from vegetation. If using powered equipment loose items of clothing that may become tangled must be avoided.
- Follow appropriate sun protection measures including sunscreen, hat, long sleeves and eye protection.
- Ensure that you have access to water and protect yourself from the effect of heat.
- Protect yourself and others in the work team from fatigue by taking regular breaks and rotating work tasks as appropriate.
- Ensure that you have and use all the prescribed PPE for any equipment that you will be using.
- Be aware of trail users. Consider warning signage or the need to close the trail to users.
- Be aware of others in the work group, especially when using tools or powered machinery.
- For safety we encourage people to work with others, however, if working alone let someone know (preferably a member of the Trails Crew Sub-committee) before you start and when you are finished.
- DO NOT USE ANY EQUIPMENT THAT YOU ARE UNFAMILIAR WITH OR UNAWARE OF ITS SAFETY REQUIREMENTS
- DO NOT UNDERTAKE ANY TASKS THAT YOU FEEL UNSAFE DOING

Fire Safety

- NO POWERED EQUIPMENT shall be used within the Park during days of declared TOTAL FIRE BAN.
- Do not refuel hot equipment.
- During 'Fire Danger Period' ensure that a fire extinguisher or fire fighting pack is available in work area if using powered equipment.

Grooming

Description:

Trail grooming is those activities involved in routine clearing of the trail corridor. Trails should be aimed to be groomed twice per year. Trail grooming does not involve the breaking of soil or physical change to the trail tread.

Trail Priority

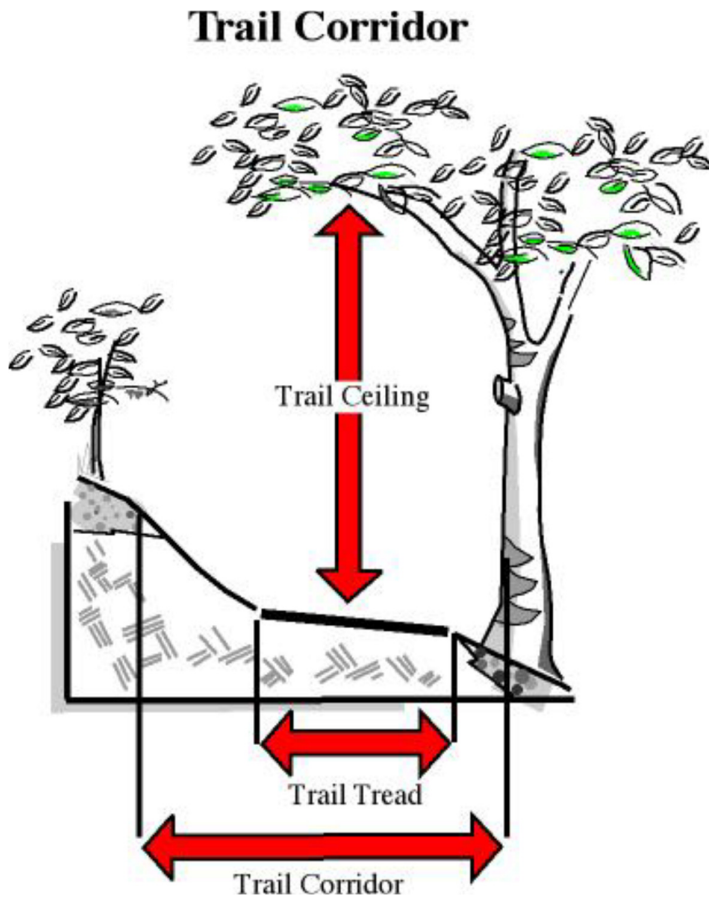
Priority for the grooming of trails should be according to the list posted on all TMB Committee Meeting Minutes and on the Facebook 'Team Mt Beauty – trail maintenance group'. This information can also be provided by members of the TMB Trail Crew Sub-committee.

Trail Corridor

The trail corridor is cleared to improve rider vision, reduce impact to riders from vegetation and encourage riders to remain on the trail.

The trail ceiling should be cleared to height of approximately 2.5 mts. This ensures that a rider of a bike can safely pass under vegetation, branches etc.

The trail corridor should be cleared to a width of 0.5 to 1.0 mts either side of the trail.



Activities

Raking	• Should not be disturbing the soil of the trail tread
--------	--

	<ul style="list-style-type: none"> • Aim to remove fallen leaf litter, light wooden material and loose rocks from the trail tread
Blowing	<ul style="list-style-type: none"> • A mechanical leaf blower can be used to remove fallen leaf litter and light wooden material from the trail tread and immediately adjacent corridor • Care should be taken not to be blowing too much loose soil from the surface of the trail tread
Brushcutting	<ul style="list-style-type: none"> • A mechanical brushcutter can be used to cut back vegetation growing in the trail corridor and encroaching on the trail tread • A brushcutter is effective on grasses and light shrubs • The aim should be to clear the trail corridor to the width of 0.5-1.0 mts either side of the trail tread
Hand Clearing	<ul style="list-style-type: none"> • Fallen sticks and timber should be removed from the trail tread and the trail corridor and cleared well away from the trail • Loose rocks can be removed from the trail tread, be aware of the difficulty rating of the trail and the desire on advanced trails for the challenge of loose rocks; do not remove embedded rocks or change the character of 'rock gardens' on the trail
Sawing and Lopping	<ul style="list-style-type: none"> • A hand saw, branch loppers and garden pruners can be useful in removing larger sized branches from the trail ceiling and trail corridor

Repair

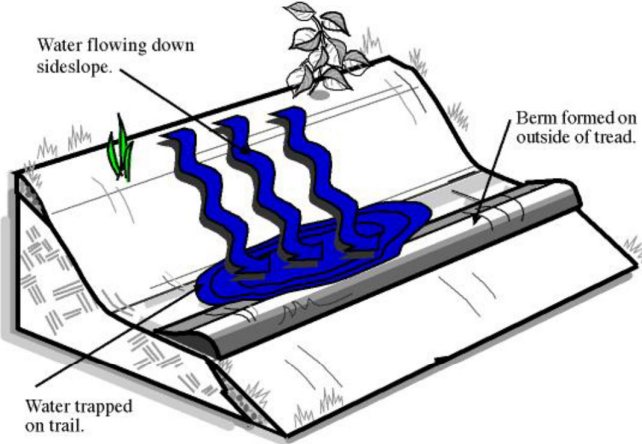
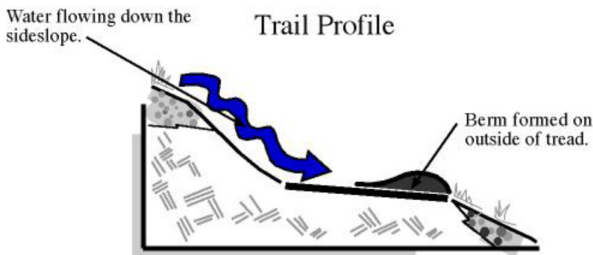
Description

Trail Repair is those activities conducted that physically impact on the trail tread and directly surrounding surface. Physical repair of a trail will be conducted according to a schedule developed by the TMB Trail Crew Sub-committee and approved by the TMB Committee.

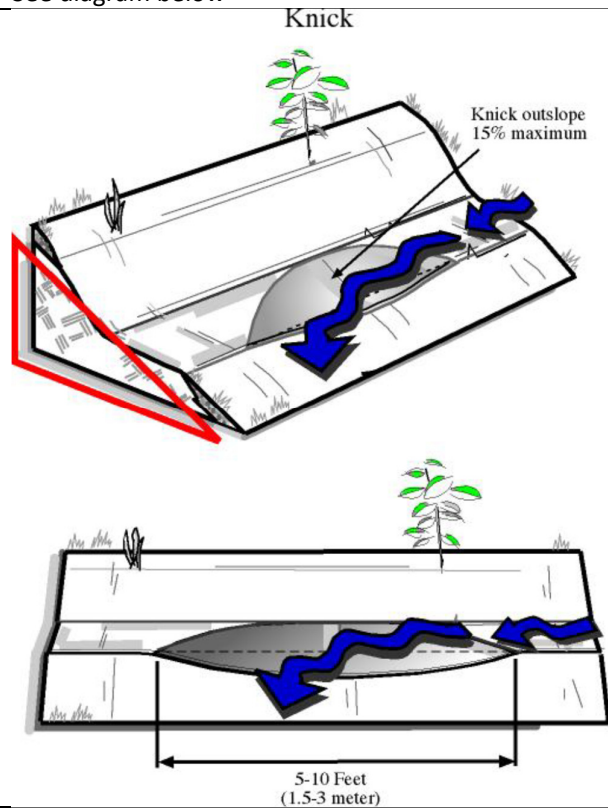
Work Approval

Trail repair should only be conducted on trails approved for repair by the TMB Committee, a list of which is listed on all monthly TMB Committee Meeting Minutes and on the Facebook 'Team Mt Beauty – trail maintenance group' page. Planned trail repair work should be communicated on the Facebook 'Team Mt Beauty – trail maintenance group' page or directly to a TMB Trail Crew Sub-committee member.

Activities

<p>Deberming and Maintaining the Outslope</p>	<ul style="list-style-type: none"> • Used to correct the situation where with compaction of the trail tread and use a raised lower edge of the trail prevents water run off and promotes water running along the trail • Deberm by scraping off the raised outer edge and re-establishing the approx. 5% outslope • See diagram below
<p>Berm</p>  <p>Trail Profile</p> 	
<p>Knicks</p>	<ul style="list-style-type: none"> • Used to improve drainage along a section of trail • A semi circular shaved down section of the trail that allows water to drain to the outside edge

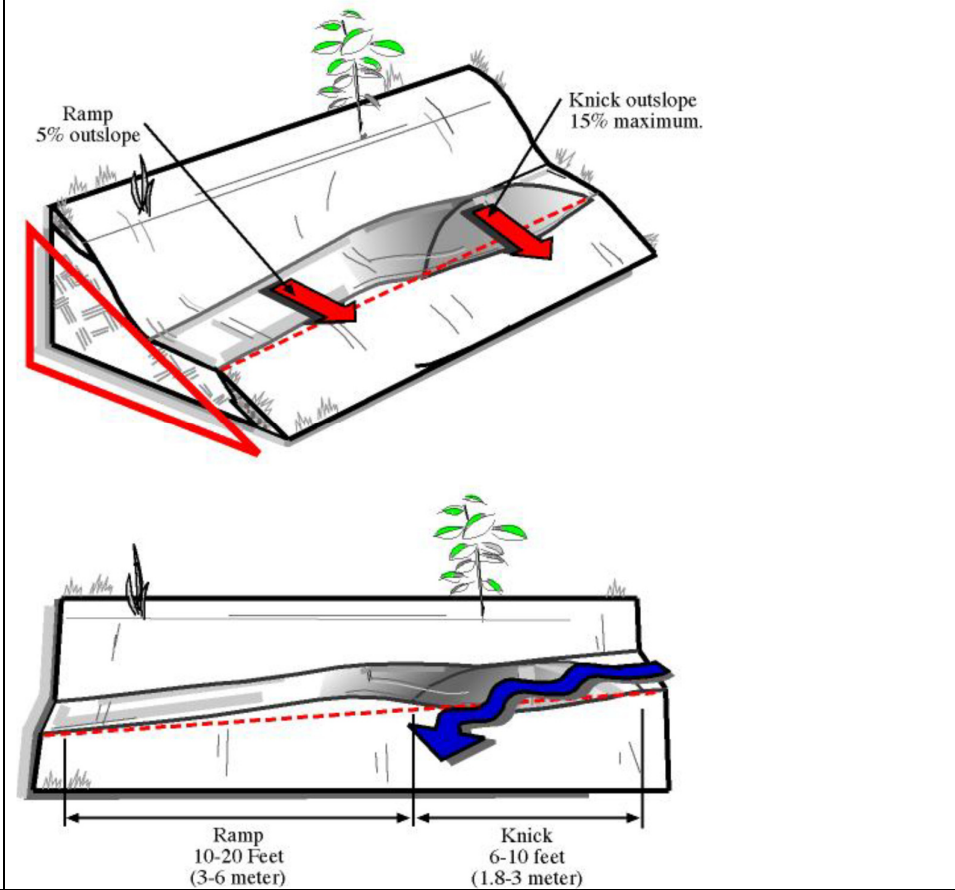
- Should be smooth and subtle and almost unnoticed to the rider
- See diagram below



Rolling
Grade Dips

- A further development on the Knick
- Material removed for the formation of a Knick is used to form a gentle ramp following the dip.
- On steeper terrain a series of Rolling Grade Dips may be used to manage water on the trail.
- See diagram below

Rolling Grade Dip



Appendix 1

TEAM MT BEAUTY TRAIL WORK GUIDELINES

TMB Committee

The aim of these Guidelines is to avoid the incidence of trail alterations, unsanctioned trails and the simplification of existing trails.

Trail workers should be TMB members, or be working alongside a TMB member with appropriate insurances, i.e. MTBA membership.

Please respect the trails and their design, intent and history. If the trail is too difficult, it just maybe a perfect challenge for someone else. If the trail is too easy, we are sure our mountain bike park has more difficult trails you can ride.

Trail maintenance

At TMB we very much encourage and appreciate when trail maintenance happens.

Trail maintenance does not change the original intention / design / character of the trail.

Trail maintenance is:

1. GROOMING

Grooming does not require TMB committee approval and includes:

- Raking (without digging)
- Blower use (trails should be lightly blown to remove sticks and some leaf litter)
- Brush-cutting the vegetation corridor
- Removing fallen branches/trees from trail

2. REPAIR

Repair work does require an initial consultation with the TMB committee and includes:

- Removing the cupped shoulders of trails (ie. the outside edge of the tread to facilitate water run-off)
- Repairing braking ruts
- Cleaning existing drainage
- Addressing minor water issues (no cross drains)
- Blocking access to unapproved new lines

Trail alterations

Trail alterations include any work that changes the original intention / design / character of the trail.

Please contact the TMB committee (and the original trail builder if known) if you have intentions to alter a trail.

Any alterations must have TMB committee approval before the work begins.

Trail alterations are:

- Alignment change
- Adding /altering / removing features such as berms, jumps and rocks
- Benching in (ie. removing the bank on the inside edge of the tread and widening the trail)
- Adding significant new drainage (no cross drains)

New trails

Please contact the TMB committee before work on any new trail begins.

New trails must have TMB committee approval and relevant AGL / DELWP approval.

Please contact the TMB committee for more information - info@tmb.org.au

[These Guidelines were developed by the TMB Committee in 2015, followed by a review and update in 2020]

TRAIL MAINTENANCE CREW REGISTER

Name	Skill Area	Competent/RPL	Date	Assessor
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			
	Equipment			
	Grooming			
	Repair			



CAUTION

Trail Maintenance

Ride with Care