

PROCEDURE MANUAL

Adelaide Mountain Bike

Club Incorporated

PROCEDURE MANUAL

PROCEDURE MANUAL

CONTENTS

Procedure	Title	Revision	Risk ID*	Action ID*
AMTBC-RM-1	Assessment of Risk	1.0	Not Applicable	Not Applicable
AMTBC-RM-2	Managing the Risk of Fire Before or During an Event	1.1	NE1, NE6	1, 2
AMTBC-RM-3	Managing Climatic Extremes During an Event	1.0	NE11	3
AMTBC-RM-4	Managing the Risk of the Malfunction, Loss or Theft of Equipment/ Technology	1.1	ET1, ET11, ET15, ET16	4, 5, 6
AMTBC-RM-5	Managing the Risk of Physical Factors	1.1	A1	7
AMTBC-RM-6	Managing the Risk of Ill Health of Key Personnel	1.0	HF1	10
AMTBC-RM-7	Managing the Risk of Human Error in the operation of Plant and Equipment	1.0	HF12, HF14	13
AMTBC-RM-8	Managing the Risk of Club Activities to Relationships	1.0	R1, R13, R37	15, 16, 19
AMTBC-RM-9**	<i>Managing the Risk Associated with Young Riders in Endurance Events</i>	1.0	A13	20
AMTBC-RM-10**	<i>Managing the Risk Associated with Rider Ability and Course Difficulty, Race Events</i>	1.0	A14	21
AMTBC-RM-11***	<i>Managing the Risk Associated with Rider Ability and Trail Difficulty, Recreation Rides</i>	1.0	A14	21
AMTBC-RM-12^	<i>Medical Support at Race Events</i>	1.0	A15	22
AMTBC-RM-13^	<i>Emergency Evacuation, Race Events</i>	1.0	NE1, NE6	1, 2

* See Risk Assessment Manual

** June 2005

*** October 2005

^ October 2006

Procedure AMTBC-RM-1

Assessment of Risk

1.0 Purpose

This procedure is intended to provide uniformity in the assessment of the level of risk associated with specific aspects of club operation.

2.0 Procedure

2.1 Identify specific sources of risk associated with club activities, related to, but not limited to natural events, equipment/ technology, relationships, human factors and the activity of mountain biking itself.

2.2 Determine the areas of club operation likely to be affected by each risk.

2.3 Assign a risk identification number to each risk.

2.4 Determine the likelihood of occurrence of each risk, as certain, probable, possible or unlikely.

2.5 Determine the consequences of each risk as minor, moderate or major, with respect to the nature of the risk.

2.6 Refer to the risk assessment matrix in Diagram 1 to assess the specific risk.

2.7 Determine a control measure aimed at minimising or negating the risk. Only medium and high risks require treatment.

2.8 Assign an Action identification number to all medium or high risk areas.

2.9 Assign a priority to the timeliness of treatment of each risk, based on the potential impact on the club.

Likelihood	Certain	Medium	High	High
	Probable	Low	Medium	High
	Possible	Low	Low	Medium
	Unlikely	Low	Low	Low
		Minor	Moderate	Major
		Consequences		

Diagram 1 – Risk Assessment Matrix

3.0 Documentation

All assessment data shall be recorded in the Risk Assessment Manual for future reference.

Procedure AMTBC-RM-2

Managing the Risk of Fire Before or During an Event

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with bush fire before or during a Club event.

2.0 Sources of Risk

Risk assessment has identified the likely effects of a fire before a Club event, in terms of event success, the quality of the event, people, physical assets and the environment. In terms of the latter three areas, the risk has been identified as low, and no action is required. However, a fire before an event will impact negatively on the likely success of the event, and ultimately on the quality of the event. In addition, fire during a Club event presents the greatest risk to people, physical assets, event success, the quality of the event, and the environment. *Reference should be made to Procedure AMTBC-RM-13 for instructions regarding evacuation in the event of fire.*

3.0 Strategies

3.1 Fire before an Event

Depending on the time before the event, the severity of the fire, and how soon the fire is brought under control, the action taken by the club shall be as follows:

- 3.1.1 Where time permits, reconstruction or re-routing of the course shall take place.
- 3.1.2 Where the above is not practicable, the event shall be relocated to an alternative venue.
- 3.1.3 Where neither option is practicable, the event shall be cancelled.
- 3.1.4 Members shall be notified of any changes by e-mail, the website and using a voice message on the Club phone.

The Committee shall be responsible for the decision making and notification process as described.

All actions shall be documented, and records maintained by the Club Secretary for a minimum of 3 years.

3.2 Fire During an Event

The first priority should a fire occur shall be to ensure that all people on site are removed to a safe location, as quickly as possible. The procedure shall be as follows:

- 3.2.1 An emergency plan (**Refer AMTBC-RM-13**) shall be developed for each specific event, which includes appropriate evacuation procedures and identifies safe locations. This plan shall take account of alternative evacuation routes and phone numbers for local CFS, Police and Emergency Services shall be readily available.

Procedure AMTBC-RM-2

Managing the Risk of Fire Before or During an Event

- 3.2.2 The club shall have basic fire fighting equipment, such as backpacks and extinguishers, to control small fires, and shall have at least one suitably trained person to manage this role.
- 3.2.3 Competitors, support people, family and the general public shall be informed of the fire using a siren or horn with sufficient volume so as to be readily heard over the entire course at all times.
- 3.2.4 The Committee shall be responsible for the evacuation process and all subsequent actions as required.
- 4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-3

Managing the Risk of Climatic Extremes Before or During an Event

Page 1 of 2

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with climatic extremes during a Club event.

2.0 Sources of Risk

Climatic extremes shall be identified as heavy rain, hail, strong winds, very low or very high temperatures, and severe electrical storms.

Risk assessment has identified the likely effects of climatic extremes, in terms of event success, people, the environment the quality of the event and physical assets. In terms of the latter two areas, the risk has been identified as low, and no action is required. However, climatic extremes can impact negatively on people, the likely success of the event, and ultimately on the quality of the event.

3.0 Strategies

The action taken by the club shall be as follows:

3.1 Heavy Rain

Heavy rain, particularly in the days and hours preceding an event, has been shown to impact negatively on the environment through severe damage to the course. For less experienced competitors, the risks of loss of control also increase with reduced traction. The Committee shall assess the conditions and take the following actions as required:

- 3.1.1 Where time permits, reconstruction or re-routing of the course shall take place.
- 3.1.2 Where the above is not practicable, the event shall be relocated to an alternative venue less affected by rain.
- 3.1.3 Where neither option is practicable, the event shall be cancelled.
- 3.1.4 Members shall be notified of any changes by e-mail, the website and using a voice message on the Club phone.

All actions shall be documented, and records maintained by the Club Secretary for a minimum of 3 years.

3.2 Hail

Whilst an unlikely event, hail can present risks to competitors, vehicles and physical assets. Given that these conditions are usually brief, the strategies employed shall be at the Committee's discretion.

Procedure AMTBC-RM-3

Managing the Risk of Climatic Extremes Before or During an Event

Page 2 of 2

3.3 Strong Winds

The principal risk in extreme wind conditions is due to falling trees or branches, with people, vehicles and physical assets most at risk, and the strategies employed shall be at the Committee's discretion.

3.4 High Temperatures

High temperatures (>35°C) not only introduce the element of fire bans and lack of access to forest areas, but can also present dehydration risks to people. As these conditions are usually forecast in advance of an event, a number of strategies can be employed, including but not limited to the following:

3.4.1 Races may be shortened to minimise the exposure to the conditions.

3.4.2 The event may be cancelled.

3.4.3 Members shall be notified of any changes by e-mail, the website and using a voice message on the Club phone.

3.5 Low Temperatures

Very low temperatures (<5°C) can present a hypothermia risk to people. As these conditions are usually forecast in advance of an event, a number of strategies can be employed, including but not limited to the following:

3.5.1 Races may be shortened to minimise the exposure to the conditions.

3.5.2 The event may be cancelled.

3.5.3 Members shall be notified of any changes by e-mail, the website and using a voice message on the Club phone.

3.6 Severe Electrical Storms

Whilst an unlikely event, a severe electrical storm can present risks to people and physical assets. Given that these conditions are usually brief, the strategies employed shall be at the Committee's discretion.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-4

**Managing the Risk of Malfunction, Misuse, Loss or theft of
Equipment/ Technology**

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with the misuse, loss or theft of equipment/ technology.

2.0 Sources of Risk

For the purposes of this procedure, equipment/ technology includes computers, timing equipment, vehicles and plant associated with a mountain biking event. The impact of malfunction, misuse, loss or theft of these items is primarily associated with event success and quality, and in some instances financial.

3.0 Treatment

3.1 Malfunction or Mis-use

The greatest impact on an event will stem from the failure of timing equipment or associated items of plant, for example communication devices, generators. The strategies employed shall be as follows:

3.1.1 Mechanical timing equipment shall be activated at the start of the first race in each session.

3.1.2 Race numbers shall be recorded in hard copy at all times during an event, for all grades.

The Committee shall be responsible for any decisions required in the event of malfunction or mis-use and the Committee shall be responsible for the notification process.

All actions shall be documented, and records maintained by the Club Secretary for a minimum of 3 years.

3.2 Loss or Theft

The loss or theft of items before an event shall be reported to the Committee at the earliest possible time, so that appropriate action may be taken to minimise the impact on the event. Where such loss or theft occurs close to, or on the day of an event, the first priority shall be to ensure that the event quality is not compromised. The greatest impact on an event will stem from the loss or theft of timing equipment or associated items of plant, for example communication devices, generators. The strategies employed shall be as detailed in 3.1.

In order to minimise the risk associated with loss of equipment, equipment shall not be loaned without the approval of the Committee.

Procedure AMTBC-RM-4

**Managing the Risk of Malfunction, Misuse, Loss or theft of
Equipment/ Technology**

The Committee shall be responsible for any decisions required in the event of loss or theft of equipment and the Committee shall be responsible for the notification process. The insurer shall be notified of any loss or theft as soon as practicable.

All actions shall be documented, and records maintained by the Club Secretary for a minimum of 3 years.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-5

Managing the Physical Risks Associated with Mountain Biking

1.0 Purpose

This document is aimed at identifying and minimising the physical risks associated with mountain Bike Competition.

2.0 Sources of Risk

The very nature of cross country mountain bike competition exposes the people involved to a number of physical risks, and demands skills related to negotiating physical obstacles such as follows:

- 1) drop-offs
- 2) jumps
- 3) rocks and boulders
- 4) plank crossing of gaps and watercourses (including “North Shore” style elevated platforms)
- 5) extreme uphill and downhill sections
- 6) twisting singletrack

When combined with variations in conditions, the risk of injury is very real.

The activity itself can impact on a number of other aspects of club operation, including people other than competitors, financial, event success, quality, physical assets and the environment. The risks associated with the latter four were assessed as low, and no action is required.

The current rules and regulations associated with competition were also assessed using risk management principles, and no issues were raised based on this assessment.

3.0 Treatment

Existing strategies are discussed in the following paragraphs:

3.1 Course Design and Construction

Course design and construction has traditionally been managed by the Committee. Club history has shown that injuries have been rare, and often of a minor nature. This is a clear indication that strategies used in the past have proven adequate given the physical risks identified.

Environmental sustainability has been a higher priority over recent years, with the principles advocated by the International Mountain Biking Association (IMBA) applied to all new construction. This has also minimised the risk to competitors through changing course conditions through erosion during events. The risks associated with the course itself have therefore been classified as low, and only the actions detailed under “Recommendations” are required.

Procedure AMTBC-RM-5

Managing the Physical Risks Associated with Mountain Biking

Page 2 of 2

Course construction involves many people and also items of plant and equipment. The risk assessment identified this area of activity as having a medium risk, and this has been addressed in the “Recommendations” below.

3.2 People

Should accidents occur, it is important that professional assistance is readily available. This is currently addressed by having St. John’s Ambulance on site at all times during events. In addition, areas of the course with greatest risk, identified by the Committee prior to commencement of racing, have additional ambulance personnel on site. This is satisfactory, but needs to be formalised in a procedure. ***Refer to procedure AMTBC-RM-12 for the review of this process, and subsequent recommendations.*** See “Recommendations below”. It is also essential that insurance cover be appropriate to the needs of the club, in relation to its mountain biking activities.

The risk to young riders may be greater when competing in endurance events. Procedure AMTBC-RM-9 addresses this issue and provides guidelines for the Race Committee.

3.3 Competitors Equipment

Given the Club history in terms of injuries, the issue of competitor equipment was assessed as low risk. Basic equipment includes as a minimum a suitable bicycle, clothing, and a Standards Australia approved helmet. These requirements should be formalised as part of rider entry, and made available through the website. See “Recommendations” below.

4.0 Recommendations

It is recommended that a procedure be developed to cover the role of the Committee in terms of specific events, ***particularly major Club events or those managed for other organizations.*** As a minimum, a formal risk assessment shall be carried out on each course prior to competition, acceptable obstacles shall be defined, and appropriate records maintained. The rider briefing instructions shall also form part of this procedure, and the formal recording of the nature and cause of any injuries reported during an event shall be mandated.

It is also recommended that the insurance held by the club be reviewed, taking account of the Club’s Risk Management Plan.

Procedure AMTBC-RM-6

**Managing the Risk Associated with the Ill Health or Unavailability of
Key Club Personnel**

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with illness or accident before or during a Club event.

2.0 Sources of Risk

Risk assessment has identified the likely effects of illness or accident to key personnel before a Club event, in terms of event success, the quality of the event, people and timeliness, as having a high risk. As with most clubs, AMBC relies on a handful of key personnel who are involved in preparation prior to an event.

3.0 Treatment

The following process shall be established:

3.1.1 Key personnel shall be identified.

3.1.2 The existing roles shall be defined.

3.1.3 Essential items of plant and equipment, including vehicles, shall be listed.

3.1.4 Alternative personnel shall be identified, including those who can be seconded in an emergency.

3.1.5 Communication mechanisms shall be reviewed.

3.1.6 All of the above shall be documented as an operational procedure.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-7

Managing the Risk of Human Error in Club Activities

Page 1 of 1

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with human error in Club activities.

2.0 Sources of Risk

Risk assessment has identified the likely effects of human error in Club events, activity related, in terms of people, event success, the quality of the event, physical assets, environmental and financial, as having a low risk, and therefore no action is required. However, in relation to human error and the operation of plant and equipment, in terms of people, event success, the quality of the event, physical assets and financial aspects, as having a medium risk, which needs to be addressed.

3.0 Treatment

The following process shall be established:

- 3.1.1 Personnel involved in the use of plant, equipment and vehicles in relation to club activities, shall be appropriately trained, and records shall be maintained to demonstrate this.
- 3.1.2 Should an individual demonstrate continued inadequacy in relation to the use of an item of plant or equipment, they shall be replaced by a competent operator until such time as their competency can be demonstrated.
- 3.1.3 All items of plant and equipment shall be covered by the Club's insurance policy, in order to minimise the financial impact of human error.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-8

Managing the Risk of Club Activities to Relationships

Page 1 of 1

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with Club activities and relationships.

2.0 Sources of Risk

Risk assessment has identified the likely effects of Club **commercial activities**, in terms of their relationship with sponsors, other bicycle related associations, the auditor, the membership and the banking institution. The assessment has identified the latter two as having a low risk, and therefore no action is required. However, in relation to the sponsors, other bicycle related associations and the auditor, the risks to relationship have been identified as medium, which needs to be addressed.

Risk assessment has identified the likely effects of Club activities, in terms of the **law** and how these activities may affect the relationship with sponsors, the insurer, the auditor, the membership, the incorporation body, the club treasurer and the banking institution. The assessment has identified this area as having a low risk, in terms of all identified relationships, and therefore no action is required.

Risk assessment has identified the likely effects of Club **financial performance**, in terms of their relationship with sponsors, the insurer, the auditor, the membership, the incorporation body, the club treasurer and the banking institution. In relation to all of the above, the risks to relationship have been identified as medium, which needs to be addressed.

3.0 Treatment

The greatest risk in terms of relationships is a unilateral approach to commercial decisions, and a lack of consultation with regard to more critical issues. This shall be avoided by ensuring that all commercial decisions are unanimously agreed to by a committee made up, as a minimum, of the Club President, a Race Committee, the Treasurer and the Secretary.

All proposed changes to club activities shall be subject to assessment by the committee with due regard to existing relationships.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

Procedure AMTBC-RM-9

**Managing the Risk Associated with Young Riders in Endurance
Events**

1.0 Purpose

This document is aimed at identifying and minimising the risks associated with young riders taking part in a Club endurance or Marathon events.

2.0 Sources of Risk

The following statement has been taken from the Mountain Bike Australia (MTBA) document, *Policy on Junior Participation in Endurance Mountain Bike events*, issued 1st January 2005:

“Young people differ from adults in the quality of their tissues and are not able to take the same stresses. Consequently training and competition must be conducted differently for young people. The most common problem is soft tissue injuries (muscles, ligaments and tendons) due to trauma or overuse. Rare problems include the risk of fractures particularly during the growth spurt when bones are lengthening and are relatively porous; and injuries to the growth plate of bones caused by high contact forces or repetitive loading in some sports.”

In the context of endurance mountain bike activity AMTBC will:

“ recognize the developmental aspects of juniors by encouraging appropriate participation in endurance mountain bike events as part of a team structure for younger aged juniors; and implementing age restrictions in the specialised area of solo and individual competitions. The former will serve to develop the basis for long-term participation in mountain biking through the development of life skills (such as communication, concentration and commitment), learning about responsibility and discipline, learning how to work with others in team environments, learning to cope with success and failure, developing a sense of community, loyalty and cohesion and finally, helping some gifted young people become aware they are role models for others. As age increases specialization founded on the groundwork of earlier team participation will provide a structured pathway towards elite competition.”

4.0 Strategies

On the basis of the statements above, the action taken by the club shall be to adopt the MTBA recommendations. At the time of preparation of this procedure, the MTBA document was incomplete, and the figures shown in bold in Table 1 have therefore been derived from the MTBA recommendations. It should be noted that the age as shown in the table is as at the first day of competition.

Procedure AMTBC-RM-9

**Managing the Risk Associated with Young Riders in Endurance
Events**

Event	Participation Group	Minimum Age*
4 hrs to <8 hrs	Solo	16
	Team (min. 2 person)	
8 hrs to <12 hrs	Solo	17
	Team (min. 2 persons)	16 (max. 8 hrs)
12 hrs to <24 hrs	Solo	18
	Team (2 persons)	17 (max. 12 hrs)
	Team (3+ persons)	16 (max. 8 hrs)
>24 hrs	Solo	18
	Team (2 persons)	17 (max. 12 hrs)
	Team (3+ persons)	16 (max. 8 hrs)
Marathon	Individual Full Marathon	18
	Individual Half Marathon	16
	Team Marathon (2 persons)	16 (max. half distance)

Table 1 – Young Rider Participation

5.0 Responsibilities

The Race Director for the specific event is responsible for ensuring that the requirements for endurance and marathon events, in terms of the age of competitors, are adhered to.

Procedure AMTBC-RM-10

**Managing the Risk Associated with Rider Ability and Course
Difficulty, Race Events**

1.0 Purpose

This document is aimed at identifying and minimising the physical risks associated with race course configuration, in terms of the relationship to riders of varying ability.

2.0 Sources of Risk

Courses designed or constructed for AMTBC race events must take account of riders of all abilities. This is aimed at both encouraging and developing new riders whilst still providing the necessary development for riders of elite level. Essentially the risk is in making the course too difficult and generating unacceptable hazards to novice riders.

6.0 Strategies

The strategies formulated to minimise the risks were as follows:

- 1) Formalised self-assessment of riders in terms of skills and fitness
- 2) Standardised rating of race courses by the Race Committee
- 3) Mandatory use of warning signs and inclusion of alternate easier lines for competitors of lesser ability.

6.1 Rider Assessment

Mountain biking is both a skills and fitness based activity, and a rider's ability should be based on both characteristics. In terms of self-managing risk, riders need to have an accurate perception of their ability and this is best achieved through comparison against established criteria.

3.1.1 Technical Skills

A number of technical skills were identified as being an important part of negotiating both natural and man-made course features. A weakness in one or more areas will significantly impact on a rider's speed and safety over a given course. A matrix of rider skills was developed, together with a rating based on ability to perform the defined skills, and this is shown as Appendix 1.

Rider's can make an assessment of their own skill level by assigning a value from 1 to 5 for the key parameters, and determining the average. A rider's technical ability will then be assessed as beginner/ novice, low intermediate, high intermediate or advanced, depending on the average figure. This process will allow the rider to compare their ability in relation to the technical difficulty of specific courses, and to plan their race accordingly in terms of personal risk.

Procedure AMTBC-RM-10

Managing the Risk Associated with Rider Ability and Course Difficulty, Race Events

3.1.2 Physical Fitness

Riders may have high levels of skill but be low in fitness, and vice versa. It is therefore important that competitors have a realistic perception of their physical fitness levels as well as their technical ability.

The physical fitness capability of a rider can be measured against the 5 key cycling training zones, as shown in table 1.

Element No.	Classification >		1	2	3	4	5
	Effort	% MHR*	Beginner	Novice	Low Intermediate	High Intermediate	Advanced
1	Endurance at low effort	<75	< 2 hours		2 to 4 hours	4 to 6 hours	> 6 hours
2	Endurance at high effort	<85	< 1 hour		1.5 to 2 hours	2 to 3 hours	> 3 hours
3	Power		Low		Moderate	High	Very high
4	Lactate tolerance (continuous)	>90	< 15 mins		15 to 25 mins	25 to 40 mins	> 40 mins
5	Sprint ability		Low		Moderate	High	Very high

Table 1 – Rider Physical Assessment

Riders can make an assessment of their own level of fitness by assigning a value from 1 to 5 for the key fitness parameters, and determining the average. A rider's physical ability will then be assessed as beginner/ novice, low intermediate, high intermediate or advanced, depending on the average figure.

This process will allow the rider to compare their physical fitness levels with the physical fitness rating for specific courses, and to plan their race accordingly in terms of personal risk.

3.2 Course Rating

The course rating process is designed as a tool to be used by the Race Committee in rating the fitness and skills demands of courses, such that competitors can prepare appropriately for an event. This is intended to not only satisfy the duty-of-care obligations of AMTBC, but also to provide competitors with a standardised “degree-of-difficulty” so that they can make informed decisions with regard to competition.

Mountain bike trails are made up of elements, both natural and man-made, which are designed to test a rider's skill and fitness. When used for racing, a standard course allows riders to compare their performance against others over a number of laps.

Procedure AMTBC-RM-10

**Managing the Risk Associated with Rider Ability and Course
Difficulty, Race Events**

3.2 Course Rating (Cont)

A process has been developed to allow the Race Committee to rate courses in a standardised way, against fixed criteria. Courses are rated for the demands that they place on both fitness and technique.

3.2.1 Course Technical Rating

The course technical rating matrix is shown in Appendix 2. The technical course rating is determined by the Race Committee by assigning a value from 1 to 5 for the key parameters, and determining the average.

3.2.2 Course Fitness Rating

The course physical fitness rating process is shown in Table 2.

Element No.	Track Description		1	2	3	4	5
			Easiest	Easy	Moderately Difficult	Very Difficult	Extremely Difficult
1	Surface	Firmness and stability	Hard and firm		Variable, loose	Variable, loose, small rocks	Variable, loose, large rocks
2		Surface water and/or mud	None		Some surface water, some mud	Some surface water, thick mud	Some surface water, thick deep mud
3		Rutting	None	Few < 50mm	Some < 100mm	Some < 200mm	Some > 200mm
4	Average Slope,	Firm	< 4%	< 6%	< 8%	< 10%	> 10%
5	Climbs and Descents	Loose and/or technical	< 2%	< 4%	< 6%	< 8%	> 8%
6	Steeper Slopes,	Firm	< 6%	< 8%	< 10%	< 12%	> 12%
7	Climbs only	Loose and/or technical	< 4%	< 6%	< 8%	< 10%	> 10%

Table 2 – Physical Fitness Rating

Procedure AMTBC-RM-10

**Managing the Risk Associated with Rider Ability and Course
Difficulty, Race Events**

The fitness course rating is determined by the Race Committee, by assigning a value from 1 to 5 for the key parameters, and determining the average. The fitness rating is then adjusted for any extremes of condition which will add physical stress to riders, using the multipliers shown in Table 3.

Weather Conditions	Temperature	10 to 20°C		5 to 10°C or 20-25°C	< 5°C or 25 to 30°C	> 30°C
	Multiplier	1		1.1	1.2	1.3
	High Temperature and Relative Humidity	10 to 20°C and < 25%		20 to 25°C and 25 to 65%	25 to 30°C and 65 to 75%	> 30°C and > 75%
	Multiplier	1		1.1	1.3	1.4
Physical Endurance Factor	Race Length (Dry conditions, Sports category, median racer)	< 90 mins	90 to 100 mins	101 to 110 mins	> 110	
	Multiplier	1	1.1	1.2	1.3	

Table 3 – Extreme Condition Multipliers

4.0 Use of Ratings

The Committee may use the rating process as a means of identifying unacceptable risk to competitors. For example, a course rated as 3.5 in good conditions will become 4.9 on a very hot and humid day, which will mean that most competitors will be at risk. The Committee may use this information, for example, to reduce the number of laps thereby reducing the physical stress to which competitors are exposed.

5.0 Alternate Lines

Alternate lines shall be provided for all man-made track constructions such as bridges, jumps, log piles, ladders or elevated platforms which are rated level 3 or higher as detailed in Appendix 2. Alternate lines shall also be provided for rock gardens or other natural features which are rated for Low Intermediate riders or below. Alternate lines must be signed as such, and should follow a longer path to provide a time penalty for using this line. Alternate lines must not incorporate any features rated as 3 or above in Appendix 2.

6.0 Communication

The rider self-assessment worksheets will be provided to members via the website and in hard copy with Fatchat. Course ratings, including any adjusted for potentially extreme conditions, will be available via the website and through the electronic newsletter prior to events.

Appendix 1 Rider Skills Classification

Element No.	Classification >	1	2	3	4	5	Rating
		Beginner	Novice	Low Intermediate	High Intermediate	Advanced	
Criteria							
1	Experience, off-road	< 5 hours	5 to 50 hours	> 50 hours	> 1000 hours	> 2000 hours	
2	Average cross country speed capability (Rating 3 terrain)	< 10km/h	10 to 12km/h	13 to 18km/h	19 to 22km/h	> 22km/h	
Braking skills							
3	General	Often overuses brakes, often locks wheels		Sometimes overuses brakes	Minimal braking, usually well controlled	Minimal braking, always well controlled	
4	Hard	No hard braking experience		Sometimes overuses brakes, occasionally locks wheels	Minimal braking, usually well controlled	Minimal braking, always well controlled	
Climbing							
5	Hardpack	Climbing ability low, may need to dismount		Able to maintain good pace	Able to maintain fast pace	Able to maintain fast pace	
6	Loose						
7	Rutted/ tree roots			May sometimes balk and lose momentum	Able to maintain good pace		
8	Wet						
Cornering							
9	Slow speed	Cornering line selection poor and speed low, may need to dismount		Good choice of line but average speed.	Good choice of line with good speed.	Excellent choice of line with maximum speed.	
10	Moderate speed	Cornering line selection poor and speed low. Often brakes in corners		Good choice of line but average speed, may brake in corners	Good choice of line with good speed.	Excellent choice of line with maximum speed.	
11	High speed	Cornering line selection poor and speed low. Often enters too fast and brakes in corners		Cornering line selection good but speed average. Sometimes enters too fast and brakes in corners.	Good choice of line with good speed.	Excellent choice of line with maximum speed.	
Descending							
12	Non-technical	Speed low, excessive braking		Good speed. Control may be limited over obstacles.	Excellent speed and control	Maximum speed and control	

13	Technical		Good speed, may overuse brakes. Control may be limited over obstacles.	Excellent speed and control	Maximum speed and control	
Natural Obstacles						
14	Sand	Speed low, excessive braking, poor stability.	Good speed, some control	Good speed and control	Undiminished speed and control	
15	Trees across track	Speed low, can cope with small logs, may sometimes dismount	Speed low, can cope with moderate size logs	Good speed and control over logs to chaining height.	Undiminished speed and control over all logs	
16	Rocks	Speed low, can cope with small rocks, may sometimes dismount	Speed low, can cope with moderately sized rocks	Good speed and control over most rock sections.	Undiminished speed and control over most rock sections.	
17	Roll-ins	Speed low, can cope with small roll-ins, may sometimes dismount	Speed good, can cope with moderately deep roll-ins	Good speed and control into most roll-ins.	Undiminished speed and control into most roll-ins.	
18	Drop-offs	Speed low, can cope with small drop-offs, may sometimes dismount	Speed good, can cope with moderately high drop-offs	Good speed and control over most drop-offs.	Undiminished speed and control over most drop-offs.	
19	Water crossings	Speed low, can cope with shallow water and narrow creek-beds, may sometimes dismount	Speed good, can cope with moderately deep water and wide crossings	Speed good, through deep water and wide crossings	Undiminished speed through deep water and wide crossings	
20	Trees, adjoining	Speed low	Reduced speed through narrow areas.	Good speed through wide and narrow areas.	Undiminished speed	
21	Trees, overhanging	Speed low	Reduced speed through low overhang areas.	Good speed	Undiminished speed	
Man-made structures						
22	Bridges	Speed low, can cope with wide short bridges, may sometimes dismount on narrow long structures.	Reduced speed over narrow or long bridges.	Good speed	Undiminished speed	
23	Jumps	Speed low, will roll small jumps, may sometimes dismount on higher jumps	Reduced speed over higher jumps with less control.	Good speed	Undiminished speed	

Appendix 2
Course Technical Rating

Element No.	Descriptor		1	2	3	4	5	Rating
			Easiest	Easy	More Difficult	Very Difficult	Extremely Difficult	
1	Shape	Camber	Flat	mostly flat or bench cut	Some side-slope	Some steep side-slope	Some steep loose side-slope	
2		Width	> 2m	> 1m	> 600mm	< 300mm	< 150mm	
3	Average Slope, Climbs and Descents	Firm	< 4%	< 6%	< 8%	< 10%	> 10%	
4		Loose and/or technical	< 2%	< 4%	< 6%	< 8%	> 8%	
5	Steeper Slopes, Climbs and Descents	Firm	< 6%	< 8%	< 10%	< 12%	> 12%	
6		Loose and/or technical	< 4%	< 6%	< 8%	< 10%	> 10%	
7	Natural Obstacles	Sand	None	Few small patches	Some large patches	Some long sections	Long sections of deep sand	
8		Trees across track	< 100mm	< 150mm	< 200mm	< 300mm	> 300mm	
9		Rocks	None	Few small stable	Some, stable	Some, loose	Some, Large and loose	
10		Switchbacks	None	Few wide radius	Few narrow radius	Some narrow radius	Loose narrow radius	
11		Roll-ins	< 300mm	< 500mm	< 700mm	< 1000	> 1000	
12		Drop-offs	< 200mm	< 200mm	< 400mm	< 600mm	> 600mm	
13		Water crossings	< 100 mm depth	< 200 mm depth	< 300 mm depth	< 300 mm depth	> 300 mm depth	
14		Trees, adjoining	> 2m	> 1.5m	> 1m	> 800mm	< 800mm	
15		Trees, overhanging	> 2m	> 2m	Few at or above Helmet height	Some below helmet height	Some below helmet height	
16		Man-made Obstacles	Jumps (height)	< 200mm	< 200mm	< 400mm	< 600mm, may be doubles, platforms	> 600mm, may be doubles, platforms

17		Bridges	width > 900mm and length < 10m	width > 600mm and length < 5m	width < 600mm and length < 4m	width < 400mm and length < 3m	width < 250mm and length < 3m	
18		Elevated Platform	None	None	height < 600mm width > ½ height	height < 1200mm width < ½ height	height < 1200mm width < ½ height and unpredictable	
19		Ladders	None	None	width 400- 600mm slope < 10%	width < 400mm slope < 15%	width < 400mm slope > 15%	

Procedure AMTBC-RM-11

**Managing the Risk Associated with Rider Ability and Trail
Difficulty, Recreation Rides**

1.0 Purpose

This document is aimed at identifying and minimising the physical risks associated with Adelaide Mountain Bike Club (AMBC) recreation rides.

2.0 Activity Definition

Recreation rides:

Those sanctioned by AMBC are those advertised via the Club website or newsletter. These rides have a nominated contact person, who may or may not be the Ride Leader.

Ride Leader:

The leader of the ride with responsibilities as defined in clause 4.2 below.

Participant:

Persons taking part in a ride, who were present before commencement of the ride, with responsibilities defined in Clause 4.3 below.

3.0 Sources of Risk

The sources of risk identified with regard to recreational rides run by Adelaide Mountain Bike Club were as follows:

- Ride leader responsibilities
- Participant responsibilities
- Mechanical issues
- Health and safety
- Route and trail selection and classification
- Participant ability

4.0 Risk Management Strategies

The strategies formulated to minimise the risks were as follows:

- 4) Ride specific planning
- 5) Defining the responsibilities of ride leaders
- 6) Defining the responsibilities of participants
- 7) Standardised rating of trails
- 8) Formalised rider assessment in terms of skills and fitness
- 9) Incident reporting

Procedure AMTBC-RM-11

**Managing the Risk Associated with Rider Ability and Trail
Difficulty, Recreation Rides**

4.1 Ride Plan

A detailed plan shall be prepared for each ride, using the form attached as Appendix 1.

The plan shall be prepared by the ride leader and plans covering unique rides shall be submitted to the Risk Management Officer at least 7 days prior to the ride. Rides which occur on a regular basis, over essentially the same route, may be covered by a single plan submitted before the first ride in the series.

4.2 Ride Leader Responsibilities

Ride Leader responsibilities are as follows:

1) Preparation and submission of ride plan.

2) Before the ride commences:

To inform riders of the:

- proposed route
- approximate time and length of ride
- degree of difficulty against established criteria
- extent of support, in terms of additional ride leaders, communication, supplies, mechanical or medical assistance

Ensure that non-members have completed an indemnity form.

To assist in standardising the instructions to riders, a sample instruction for ride leaders is attached as Appendix 2.

3) During the ride:

- To guide riders safely over the proposed route and to ensure that all riders return to the starting point.
- To provide support where specified at the start of the ride.
- To warn riders of any upcoming obstacles or trail features which may be more challenging for the ability of some or all riders within the group.

This sample will require modification to suit each specific ride, and this will be the responsibility of the Ride Leader.

4) On completing the ride

- To ensure that all riders are accounted for.
- To document any incidents which occurred during the ride.

Procedure AMTBC-RM-11

**Managing the Risk Associated with Rider Ability and Trail
Difficulty, Recreation Rides**

4.3 Participant Responsibilities

Riders have responsibilities when taking part in a recreational ride, as follows:

- To inform the ride leader of any medical condition which may affect the ride in any way.
- If a non-member, to complete an indemnity form and hand to the ride leader.
- If a member, to have their membership card on their person. An emergency contact number shall be displayed on the card.
- To ensure that their equipment is suited to the ride and in good condition.
- To have a basic tool kit, spare tube etc.
- To have the necessary food and water to cover the ride as described.
- To ensure that they are not affected by alcohol, drugs or illness which may impair their riding ability.
- To remain behind the Ride Leader at all times.
- To inform the Ride Leader if they need to withdraw from the ride.

4.4 Route/ Trail Classification

Trails will be classified according to the Adventure Activity Standards (AAS) guidelines, available from Recreation SA or from the AMTBC website under Recreational Rides. The route will be appropriate to the majority of riders within the group, in terms of length and terrain. The Ride Leader will warn all riders of upcoming obstacles or features which may be challenging for some riders.

4.5 Rider Classification

Riders need to be classified according to the 2 distinct parameters of physical fitness and technical skill, as this will impact on the nature of the trails and route taken.

4.5.1 Physical Fitness

It is important to realise that a novice rider may have a high fitness level, as a result of training for another sport, and that an experienced rider may have a low fitness level, as a result of injury, illness or a period with no exercise. For the purposes of recreational rides, it is deemed sufficient for riders to rate their level of fitness as low, moderate or high. Should a rider wish to carry out a more comprehensive self assessment against standard criteria, a worksheet is provided on the AMTBC website for this purpose.

Procedure AMTBC-RM-11

**Managing the Risk Associated with Rider Ability and Trail
Difficulty, Recreation Rides**

5.0 Technical Skills

A rider may have a high level of fitness, but be low in skills, such as a rider from a road racing background. It is therefore important that a separate assessment be made of a rider's technical skills, as this will have a significant effect on the level of risk over a given route.

A mountain biker requires a number of skills in order to competently and safely negotiate a trail. It is important that riders are aware of their physical limitations, and the Club has therefore developed a self-assessment form whereby riders can assess their ability against fixed criteria. A worksheet is provided on the AMTBC website for this purpose.

6.0 Incident reporting

All incidents which occur on recreational rides should be reported verbally as soon as possible, but always within 24 hours, via the AMTBC contact phone number. Incident details shall be documented by the ride leader, on the AAS Incident Report form, and the completed form forwarded to the Committee for appropriate action.

7.0 Services to Members

Riders may access the physical fitness and skills capability assessment criteria via the Recreational Rides section of the website. Details of trail classifications and routes for forthcoming rides can also be found on the website.

Appendix 1

RIDE PLAN	
Ride Plan No.	
Ride Name	
Date	
Regular Ride?	
Ride Leader	
Ride Leader Contact Details	
Home	
Work	
Mobile	
E-mail	
Assistant Leaders	
Ride Starting Point	
Ride Starting Time	
Estimated ride time	
Estimated ride distance	
Ride Rating	
Ride Terrain Description	
Emergency Plan	
Fire	
Communication	
External Support Person	
Mechanical	
Medical	

Appendix 2

Sample Ride Leader Introduction

“My name is....., and I will be leading today’s ride.

The ride will take approximately...minutes, about ... kms, and is suitable for novice/ intermediate/ advanced level riders.

Mountain biking can be dangerous and Adelaide Mountain Bike Club expects riders to take some responsibility for their own safety.

As detailed in the Club Risk Management Plan, the Ride Leader’s role is to lead this ride, and to point out any potential hazards before we reach them.

If you feel comfortable, ride the section, otherwise don’t be afraid to get off and walk.

Please ensure that your equipment is appropriate for the terrain, and that you have sufficient water for the ride.

It is a requirement of the Club that riders wear an approved helmet at all times whilst riding.

*There are some additional things which you need to be aware of:
The Ride Leader is not a qualified first aider and may not be able to provide medical assistance in the event of accident or illness.*

The Ride Leader is not a qualified bike mechanic so may not be able to help you if you have mechanical problems. Riders are expected to be self-sufficient in this regard.

Whilst I do have a mobile phone with me, communication is uncertain in this area, so please be aware of this.

If you are unsatisfied with any of these instructions, please feel free to withdraw from the ride.

I have assigned (name) to ride at the back of the group in case anybody has any problems, so you won’t get left behind.

*Please stay behind me during the ride, so that we know where everybody is.
The last instruction is to enjoy yourselves.”*

Procedure AMTBC-RM-12

Medical Support at Race Events

1.0 Purpose

This document details the requirements regarding medical support provided at Club race events.

2.0 Sources of Risk

Procedure AMTBC-RM-5, Clause 3.2, recommended that a procedure be developed covering medical support at race events. This was aimed at providing competitors and others at race events with information regarding the nature of medical support available, such that individuals can make decisions with regard to their personal risk. Medical support is aimed at providing, as a minimum, first aid for all injuries and illnesses likely to be encountered at a race event.

3.0 Medical Support Strategy

Medical support is sometimes addressed by having St. John's Ambulance on site. This support is not always available and this procedure is aimed at clarifying the roles of the Committee and support personnel under these circumstances.

At all Club race events, in the absence of St. John's Ambulance, the following shall prevail:

- 1) A minimum of 2 qualified first aid officers shall be available at all times during an event.
- 2) A list of currently available first aid officers shall be on display at all times at the Race tent.
- 3) A minimum of 1 comprehensive first aid kit shall be available at all events, and shall either be held at the Race tent or with first aid personnel on course.
- 4) Committee shall be clearly identified at all events, and shall be the first point of contact in the event of an injury or incident.
- 5) A map shall be available at all events which clearly shows the route to the nearest hospital.
- 6) An in-service phone or other reliable means of communication shall be available at all events, at all times, and shall be held at the Race tent.
- 7) A list of phone numbers including local police, hospital, ambulance service where applicable shall be available at the Race tent at all times during an event.
- 8) A suitable vehicle shall be available at all times should an emergency transfer be required.

The Race Director shall manage all significant medical situations at race events, with delegated authority to others as required.

All medical treatment shall be recorded and all documentation stored for a minimum of 3 years.

Procedure AMTBC-RM-13

Emergency Evacuation, Race Events

1.0 Purpose

This document is aimed at providing guidelines for the evacuation of persons in the event of an emergency, during a Club event.

2.0 Sources of Risk

Risk assessment (Procedure AMTBC-RM-5) identified fire during a Club event as having a level of risk which warranted a dedicated emergency evacuation procedure. The Committee have reviewed this position and elected to expand the scope of this procedure to include any situation which warranted removal of all persons from the event venue to a place of safety.

3.0 Strategies

The first priority should a fire occur shall be to ensure that all people on site are removed to a safe location, as quickly as possible. Similarly, other risks such as bomb threat shall be treated as an emergency evacuation situation. The procedure shall be as follows:

An emergency plan shall be developed for each specific event, which includes appropriate evacuation procedures and identifies safe locations. This plan shall take account of alternative evacuation routes. Phone numbers for local CFS, Police and Emergency Services shall be readily available. CFS shall be contacted at the first signs of a fire situation beyond the containment capabilities of the Committee.

Competitors, support people, family and the general public shall be informed of the fire using an air horn with sufficient volume so as to be readily heard over the entire course at all times. The warning shall constitute 3 short blasts.

The Committee shall be responsible for the evacuation process and all subsequent actions as required.

4.0 Documentation

All data shall be recorded and stored for a minimum of 3 years.

End of Document
