



# **Recreational Caving Adventure Activity Standard (AAS) Guidelines for Dependent Groups**

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## **Disclaimer**

The information contained in this publication has been gathered through widespread industry consultation. All reasonable attempts have been made to ensure that it is accurate, relevant and current at the date of publication. Nevertheless, the Adventure Activity Standards (AAS) are only advisory and general in nature and should not be relied upon to meet individual or specific requirements. They are recommendations for voluntary application to adventure activity providers and participants. They are not binding on any person or organisation and have no legal force.

The AAS will not cover each and every circumstance of an adventure activity. Nor can they, when adhered to, entirely eliminate the risk or possibility of loss or injury. Consequently they should be used as a guide only. Whenever using the information contained in this publication or any AAS, all adventure activity providers should carefully evaluate the specific requirements of the intended adventure activity and the persons participating in it. If necessary, advice should be obtained from a suitably experienced and qualified professional person.

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## **Guidelines for organisations and leaders conducting recreational caving for commercial and non-commercial dependent groups**

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## 1 Introduction

The Victorian Adventure Activity Standards (AAS) have been developed to assist organisations and leaders to plan and safely undertake outdoor adventure activities with dependent participants. The AAS should be used in the preparation of the organisation's risk management program.

Participants may already have a degree of skill and experience in the particular adventure activity and so be less dependent upon the leader for guidance and instruction. In these situations the AAS should be adapted to reflect the experience of group members and the particular circumstances of the adventure activity.

Regardless of the extent to which the AAS are adapted, each organisation, and leader has a duty of care to the participants to have completed a risk analysis of the activity and developed strategies to address possible risks.

The AAS have been prepared with the involvement of a wide cross-section of Victoria's outdoor industry, and reflect commonly accepted practices for planning and undertaking outdoor adventure activities with inexperienced and dependent participants.

### 1.1 Applying the Adventure Activity Standards

The likelihood of injury and loss can be minimised by having suitable risk management programs in place and applying the advice provided in the AAS to suit the particular circumstances of the activity or organisation. Organisations may use the AAS to demonstrate that the delivery of an activity meets commonly accepted industry practices.

AAS are voluntary guidelines for undertaking adventure activities in a manner that:

- promotes safety for both participants and providers
- provides assistance for providers against legal liability claims and criminal penalties
- provides assistance in obtaining insurance cover.

While the AAS are NOT statutory standards imposed by law, some agencies/organisations may make application of the AAS mandatory (for example Crown land licences for trade or business insurers).

### 1.2 Legal aspects

The ORC web site [www.outdoorsvic.org.au](http://www.outdoorsvic.org.au) has general additional information about:

- the basis of legal liability
- claims in contract
- claims in negligence
- defences against claims by participants
- Good Samaritans, volunteers, apologies
- limitation on claims for personal injury damages.

However all organisations should obtain their own legal advice.

### 1.3 Review of AAS

The AAS are not fixed documents. They are reviewed periodically in the light of changing knowledge or practices. New equipment or technology, changing understanding of the environment, reports of incidents or near misses in Australia or overseas are possible triggers for a review of an AAS.

## 2 Activity description

Caving is a highly physical adventure activity conducted underground where natural processes have created passages and caverns of varying sizes and complexity.

Experienced (peer) groups undertaking caving activities, including complex vertical caves, new caves or cave dives, may need extra consideration. Victorian ASF member clubs which include the Victorian Speleological Association, Caving Club of Victoria and Limestone Caving Team or the relevant land manager can be contacted for further details.

It should also be noted that caving AAS is written primarily for wild and adventure caves; it is the responsibility of land and cave managers to document standards for show caves.

AAS are written specifically for formal groups (commercial and non-commercial organisations) undertaking organised activities and are intended to provide guidance towards satisfying the legal obligations inherent in delivering such activities. For this reason it is important to ensure that each leader or organisation interprets the AAS for the specific group, area or location and duration of each activity.

## 3 Planning

In any adventurous activity, planning is essential in order to achieve objectives, have fun and to minimise the inherent

risks to participants. There are many recognised ways to plan an activity and AAS recognises that each group will approach this differently. This section is intended to provide a framework for planning activities to minimise the risks to participants.

### 3.1 Activity plan

An activity plan should be prepared for all activities. Each organisation must determine if the plan needs to be documented. The following is a list of factors that should be addressed prior to any activity:

#### People

- objectives of the activity (desired outcomes) and participant expectations
- duration of activity
- age, experience, fitness, skill level, disposition, and known medical conditions of participants
- size of group
- standard of care (education, commercial or community organisation)
- leader to participant ratio.

The leader(s) selected for the activity must have the required skills, experience and competency to conduct the activity, effectively manage incidents and satisfy the planned objectives.

At least one leader should be suitably familiar with the area being visited (the level of familiarity will vary according to the objectives and circumstances of the group.)

Leaders must have passed the Working With Children Check if independently supervising participants under 18 years of age (see [www.justice.vic.gov.au/workingwithchildren](http://www.justice.vic.gov.au/workingwithchildren) for requirements and exemptions).

#### Equipment

- group equipment including first aid and communication equipment
- personal equipment including clothing, food and dietary requirements, and personal medication
- availability of specific activity equipment for participants
- condition and suitability of all equipment
- support/evacuation resources (vehicle, local bus company, etc.) and availability and access of emergency medical assistance (e.g. air ambulance flight times, SES, etc.).

#### Physical Environment

- area and route selection and intended route
- availability and suitability of maps and other area specific information
- ability of site to withstand visitation with minimal impact
- terrain (route characteristics) and associated implications including remoteness and access
- land managers requirements (access restrictions, group sizes, permit requirements, booking requirements)
- seasonal factors (snow, fire, availability of drinking water, tides, river levels, track conditions, other users)
- expected weather conditions and implications (hypothermia, hyperthermia).

Other factors to be considered include:

- cave type (horizontal, single pitch, multi pitch)
- cave environment (wet, dry and ability of cave to withstand visitation with minimal impact)
- access and remoteness of cave system.

#### Guidance Note

The activity plan should take into account the possible impact of severe weather on the safe conduct of the activity. The Guidance Note 'Management of Outdoor Activities for Severe Weather Conditions' provides information and commonly agreed procedures for planning and responding to severe weather in the outdoors that involve led activities with dependent participants in Victoria. The Guidance Note is available from the ORC website [www.outdoorsvic.org.au](http://www.outdoorsvic.org.au)



**Guidance Note**

#### General

Factors that may cause an activity to be cancelled, modified or postponed include, but are not limited to, forecasted or current adverse weather conditions, insufficient equipment, restrictions dictated by the land manager and environmental factors (flood, drought, fire).

### 3.2 Pre-activity documentation

There are certain details that a leader and/or organisation must document to maximise safety.

The following information must be documented, taken on the activity and a copy must be made available to a non-

participating contact.

- activity plan (at least a route plan explaining from where to where, how long it should take and expected hazards)
- emergency strategy
- name, address and emergency contact details for all participants and staff
- any medical conditions of participants, including teachers and supervisors, that are likely to affect performance. For example asthma (details of management plan including medication), diabetes, epilepsy, fainting/dizziness, specific allergic reactions, blood conditions which may affect bleeding/ blood clotting, conditions affecting balance, recent or long-standing injuries (e.g. back, knee, ankle), disability or other relevant medical conditions (e.g. pregnancy, repetitive strain injury (RSI), heart and any relevant medication. Throughout the activity, the leader must take reasonable steps to manage any known specific participant medical requirements.
- after a full explanation/briefing participants should be asked to sign an acknowledgement of the inherent risks involved in the specific activity
- the signature of a parent/guardian for participants under the age of 18 authorising participation.

### 3.3 Competencies

To lead activities a leader must be confident of having the skills and experience at least equivalent to that described by the following Units of Competency. A leader can acquire these skills and experience through training with community organisations such as clubs, via employers, TAFE colleges, universities, registered training organisations (RTOs), in-house training and by attaining international qualifications.

Details of these Units of Competency can be found at the National Training Information Service website at [www.ntis.gov.au](http://www.ntis.gov.au). NTIS is the official national register of information on Training Packages, Qualifications, Courses, Units of Competency and Registered Training Organisations (RTOs). See also Service Skills Australia [www.serviceskills.com.au](http://www.serviceskills.com.au) These competencies are used to describe the skills required to undertake a specific role within the outdoor industry.

In non-commercial activities participants are often peers/club members with known experience/skills. Where this is the case, the leader may not require all of the skills listed below but may prefer to delegate some aspects to other members of the group. The group needs to assess the list of skills described below and ensure that the relevant skills are available within the group for the particular activity.

A statement of attainment for these units is not required but the inclusion of this section is intended to provide a suitable benchmark describing the skills that leaders should have, although not all of the skills listed below will be applicable on all activities. It is recommended that leaders keep a diary record of activities they participate in and/or are responsible for as relevant experience is also extremely important.

	GENERIC	UNIT CODE
These units relate to the generic competency expected of any individual in a position of Leadership or Management in the outdoors.	<b>Leadership and Management Skills</b>	
	Respond to emergency situations	SRXEMR001A
	<b>See the First aid section in this AAS</b>	
	Facilitate a group	SRXGRO001A
	Deal with conflict	SRXGRO002A
	Undertake risk analysis of activities	SRXRIK001A
	Apply sport & recreation law	SRXINU002A
	Follow defined Occupational Health and Safety policy and procedures	SRXOHS001B
	Manage risk in an outdoor activity	SROODR006A
	Plan for minimal environmental impact	SROOPS002B
These additional skills may be required when the activity is more complex, conditions more variable, location is more remote, etc.	<b>Outdoor Recreation Skills</b>	
	Provide leadership to groups	SRXGRO003A
	Plan outdoor recreation activities (advanced)	SROODR003A
	Guide outdoor recreation sessions	SROODR005A
	Apply weather information	SROOPS003B
	Coordinate emergency response	SROEMR002A
	Operate communications systems and equipment	PUAOPEO02A
	Navigate in tracked or easy untracked areas	SRONAV001B

	Navigate in difficult or trackless areas	SRONAV002B
	Use and maintain a temporary or overnight site	SROOPS006B
	Apply search and rescue skills	SROOPS005B
<b>CAVING</b>		<b>UNIT CODE</b>
<b>Horizontal Caving</b> Any individual who takes the responsibility to be the leader in a horizontal cave system must have the above generic competency and these caving specific competencies or equivalent.	Move through a cave with minimal impact	SROCVE001A
	Navigate in caves	SROCVE002A
	Guide horizontal caving trips	SROCVE020A
<b>Vertical Caving (single pitch)</b> Any individual who takes the responsibility to be the leader in a vertical cave system must have the above competency and these caving specific competencies or equivalent.	Demonstrate laddering skills	SROCVE003A
	Apply single pitch abseiling skills in caves	SROCVE004A
	Rig a ladder pitch	SROCVE005A
	Apply laddering skills	SROCVE006A
	Use caving specific single rope techniques	SROCVE007A
	Rig ropes and establish belays in caves	SROCVE008A
	Guide vertical caving trips (single pitch)	SROCVE021A
	Perform vertical rescues	SROVTR001A
<b>Vertical Caving (multi pitch)</b> Any individual who takes the responsibility to be the leader in a vertical cave system must have the above generic competency and these caving specific competencies or equivalent.	Rig ladders in complex situations	SROCVE009A
	Rig a complex pitch using caving specific techniques	SROCVE010A
	Demonstrate vertical caving skills	SROCVE011A
	Rig multi pitches in complex vertical cave systems	SROCVE012A
	Guide vertical caving trips (multi pitch)	SROCVE023A
	Perform complex vertical rescues	SROVTR002A

### 3.4 First aid

To lead any activity a leader of a group (or a delegated other) must have a level of first aid training that is relevant to the situation. The factors that determine the level of first aid training and support include:

- the size of the group
- the age of the group
- the remoteness of the activity
- the ease with which the emergency services can be contacted; this may depend on the remoteness of the activity and the type of communication equipment available
- the likely time for emergency services to reach the injured person
- the nature and severity of likely injuries.

A common approach is given below. The time limits are guidelines only and the leader needs to make a judgement, based on the circumstances of each activity, about the level of first aid training required. The codes refer to the Health Training Package available from [www.ntis.gov.au](http://www.ntis.gov.au)

**Urban:** This applies in parks and urban areas supported by a professional (not volunteer) ambulance service. Distance from road heads should be at no time more than 15 minutes.

No formal first aid qualification may be necessary but a leader should at least be able to care for someone who is unconscious or who is choking, treat for shock, manage severe bleeding and provide CPR. After consideration of such factors listed above it may be judged that first aid training equivalent to HLTFA201A (Provide Basic Emergency Life Support) is necessary.

**Standard:** This applies to any situation where access to professional medical care is less than 1 hour.

It is recommended that leaders have a level of first aid training equivalent to HLTFA301B (Apply First Aid). After consideration of such factors listed above it may be judged necessary to increase this to HLTFA402B (Apply Advanced First Aid).

**Remote:** This applies to any situation where access to professional medical care is greater than 1 hour.

It is recommended that leaders have a level of first aid training equivalent to HLTFA302A (Provide First Aid in Remote Situation). After consideration of such factors listed above it may be judged necessary to include additional training to the level of HLTFA402B (Apply Advanced First Aid).

More information:

Ambulance Victoria ([www.ambulance.vic.gov.au/Main-home/First-Aid.html](http://www.ambulance.vic.gov.au/Main-home/First-Aid.html))

Red Cross (Victoria) ([www.redcross.org.au/vic/](http://www.redcross.org.au/vic/))

Royal Life Saving (Victoria) ([www.lifesavingvictoria.com.au/](http://www.lifesavingvictoria.com.au/))

St Johns Ambulance (Victoria) ([www.sjaa.com.au/](http://www.sjaa.com.au/))

Wilderness Medicine Institute ([www.wmi.net.au/wmi/](http://www.wmi.net.au/wmi/))

On activities for participants with disabilities, for multi day activities and/or walks in remote areas, more specialised first aid knowledge may be required.

Other organisations such as clubs/community groups have a responsibility to manage likely incidents requiring first aid. Where such a group cannot ensure that one group member has adequate first aid ability then it is essential that participants understand this and, where possible, other measures are put in place to manage the risk of injury or illness.

### 3.5 Risk management

Risk is inherent in all outdoor activities and the AAS can help manage that risk. However it is not possible to eliminate all risk and the leader and organisation need to accept that some risk remains and they should ensure that it is managed according to recognised methods.

Risk management is a series of 'well-defined steps which, taken in sequence, support better decision making by contributing a greater insight into risks and their impacts' (Australian Standard AS/NZS 4360 Risk Management).

The five step approach is

Step 1: Identify all hazards

Step 2: Assess and prioritise the risks these hazards create, deal with highest priority risk first

Step 3: Decide on measures to control the risks (e.g. eliminate the risk, substitute a venue, use personal protective equipment)

Step 4: Implement appropriate control measures

Step 5: Monitor the control measures and review the process.

More detail about the steps involved in risk management can be obtained from the ORC web site or from a general web search.

The identification of risks could be considered under the headings of 'people', 'equipment' and 'environment'. Examples of risks associated with 'people' could be the lack of necessary skills or inadequate fitness. Risks associated with 'equipment' could include inadequate clothing for the area, and insufficient or incorrect equipment. Risks associated with 'environment' could include adverse or unseasonal weather, sudden changes in river levels or high winds.

For the activity being undertaken and the group involved, foreseeable risks should be noted and strategies should be developed to avoid or minimise these risks. The strategies should be included in the activity plan.

Some activities and some organisations (such as clubs and commercial operators) may have established risk management guidelines which should be used.

Activity leaders must assess the chosen site for any unexpected hazards and change the activity plan if necessary. Information of any new hazard must be made available within the organisation, to the caving community and to the relevant land manager.

### 3.6 Emergency strategy

An emergency strategy must be devised from the risk assessment to manage foreseeable incidents and minimise their escalation. This strategy should be documented. Activity leader(s) and a non-participating contact must be aware of the emergency strategy and have a copy of it.

The emergency strategy for an activity must be specific to each activity and will contain:

- emergency access and emergency escape routes (where possible)
- assembly points where appropriate
- emergency contact details for key organisations (land manager and police) and how they are best contacted (mobile phone, satellite phone, radio)
- planned start and finish time of the activity
- the emergency trigger time for the non-participating contact to inform emergency services (on failure of group to return/check-in)
- specific communication being carried by group
- relevant aspects of the land manager's emergency strategy
- strategies adopted peculiar to specific areas being visited (e.g. the rock scramble or river crossings)

- a strategy for maintaining supervision ratios should any changes to the planned activity eventuate (adverse conditions, injured leader, participant(s) pull out of activity).

The activity leader must communicate with the relevant non-participating contact at designated time(s). If this does not happen, the non-participating contact must commence the agreed steps of the emergency strategy which would ultimately lead to the police being notified. There may be certain trigger times for various stages of the emergency strategy to be implemented.

A summary of the emergency strategy must be provided as a component of the pre-activity briefing.

### **3.7 Restrictions to participation**

Participants may be excluded or removed from an activity (or an activity may be modified) at any time prior to departure at the leader's discretion. This may also be done during the activity if safe to do so.

Participants may be excluded for reasons that include (but are not limited to) being under the influence of alcohol or drugs (including prescription drugs which may affect performance), being unable or unwilling to follow instructions, lacking suitable equipment, having an inadequate level of fitness, physical ability and experience for the particular activity.

Operational restrictions to a caving trip include weather, equipment, land manager/owners requirements, type of cave and restrictions dictated by environmental factors as advised by the land manager or otherwise (including seasonal flora and fauna).

Individual restrictions to a caving activity apply to participants such as in a very tight cave or where long reach is essential, individual size may also restrict inclusion.

### **3.8 Pre-activity briefing**

It is essential that all information is accurately disseminated to potential participants in adequate time for an informed decision to be made about their participation.

Groups and organisations may have their own preference for how the pre-activity briefing will be delivered and the method may depend on the length and complexity of an activity. The briefing should be delivered in a way that ensures that all participants are aware of the following:

- identity and role of activity leader(s)
- an outline of the activity plan and objectives
- the nature of the activity and its inherent risks
- essential equipment and clothing
- correct use and/or fit of equipment
- recommendations on the type of food, the amount of food and water required and the availability of water
- strategies for conservation including protection of flora and fauna, rubbish removal and sanitation
- a summary of the emergency plan or sufficient information to allow participants to act appropriately in the event of an incident or emergency, including methods of emergency communication
- explanation of what is expected of participants and the participant's responsibility to act as requested (conduct etc.)
- restrictions to participation
- agreed methods of communication within the group (signals and calls) devised before the activity commences
- final check that all documentation is completed and submitted.

Leaders should receive acknowledgment that participants have understood the content of the briefing.

Leaders must offer participant the opportunity to voice any concerns.

An example of a system of communication may be found in Section 7 of the ASF Cave Safety Guidelines.

### **3.9 Ratios**

The ratio of participants to leaders is determined by a number of factors. In some circumstances the leader may judge that a smaller number of participants per leader/assistant leader is necessary. The leader should consider the supervision ratio based upon the:

- experience of the leader
- expected capabilities of participants (experience, competence, fitness, etc.)
- conditions (environment, remoteness, weather)
- land manager's requirements
- planned duration of the activity
- remoteness of the activity



- suitability and availability of equipment.

Land managers or relevant authorities may also suggest ratios that differ from AAS and where these are within AAS (fewer participants per leader) they must be regarded as minimum requirements.

Other variables include the cave (type, condition including sensitivity and complexity). Regardless of these factors:

- there must always be at least two individuals with the competency to lead the caving activity
- the leader to dependent participant ratio must never exceed 1:6.

### **3.10 Group size**

Group size is an essential component of group management. Maximum and minimum group size must be carefully decided based upon the following:

- the safety of the group and individuals
- the objectives of the activity
- specific restrictions imposed by the land manager (e.g. Parks Victoria)
- expected environmental impact of the activity
- experience of the leader and participants
- the potential impact of other users
- conditions (environment, remoteness, weather)
- equipment available.

Where a large group is split into a number of smaller groups each resultant group must have its own leader and independently adhere to AAS.

For the safety of both the group and the cave system, the maximum group size for a caving activity involving a dependent group should be 12 participants.

The minimum safe group size in any cave is 4, two of whom must be competent to lead the group.

## **4 Leader roles**

In the AAS leaders, assistant leaders and other roles are defined by skill levels, not by titles. The skill levels are described in the section on competencies. Some activities may refer to 'guide', 'supervisor', 'manager', 'whip' or 'instructor' because the terminology has been used in the activity for many years. The actual title of a person in a particular activity is irrelevant. Regardless of the terminology, there must be an individual who has the responsibility of 'leader' and is in charge of the conduct of the activity. There may also be other people (one or more) who are assistants to the leader.

### **4.1 Leader**

The leader of the activity will

- have the skills and experience to carry out the activity plan
- be responsible for delegating tasks to assistant leader(s)
- be responsible for conducting the activity on-the-ground without external supervision
- have activity skills as well as group management skills.

### **4.2 Assistant leader**

The assistant leader of the activity will generally not be required to have the same skill level as the leader but will:

- have skills specific to the conduct of the activity
- be able to undertake activity-specific tasks delegated by the leader
- be able to manage the safety of the group, including in an emergency, if the leader is incapacitated.

An assistant leader would normally be included in the leader ratio.

A teacher without these skills may be responsible for the welfare and supervision of students but would not be considered an assistant leader nor included in the ratio.

A teacher with these skills may be an assistant leader and be included in the leader ratio.

There may be a number of assistant leaders with responsibility to the leader.

### **4.3 Other leader roles**

In some large organisations the leader may be appointed by an activity manager who:

- is responsible for selecting staff with the necessary skills and experience
- is responsible for appointing leaders and assistant leaders – in large groups there may be more than one leader for

an activity

- is responsible for ensuring the activity plan is properly completed
- will not necessarily take part in the activity.

#### **4.4 Specific responsibilities of the leader**

In addition to actual leading the group, the leader has a range of responsibilities for the duration of the activity including:

- take reasonable steps to ensure that the level of knowledge, ability, skill and equipment of each participant is adequate for the level of difficulty and complexity of the activity
- ensure that a process has been undertaken to research and plan for likely hazards, and that the leader is familiar with the measures required
- introduce themselves as leader and introduce any other key people
- ensure that minimal environmental impact message is conveyed and adhered to
- manage and minimise the impact to the environment that may be caused by the activity
- where considered necessary nominate an assistant leader (or assistant leaders) who has/have known skills and experience relevant to the activity and are willing to perform defined duties
- ensure a briefing is conducted and understood by all participants
- undertake headcount before, during and immediately following the activity
- maintain awareness of the physical and psychological condition of the group
- control the pace of the group
- delegate responsibility to other group members as necessary (whip, navigation, first aid, etc.)
- notify relevant people of safe completion of the activity
- ensure that any incidents are managed, reported and recorded
- manage the group to avoid or minimise the effects of hazards
- ensure land manager's requirements are followed
- confirm the activity plan
- ensure that the group has access to safe drinking water
- check suitability, condition and use of all group equipment prior to departure and on return
- ensure group equipment is secured and stored correctly at all times
- ensure to the best of their ability that group members do not get into situations beyond their capabilities
- check first aid kit equipment prior to activity
- check communication equipment prior to activity
- frequently check weather forecasts prior to the activity and, if possible and relevant, during the activity
- ensure all documentation has been completed and collated
- arrange for the signing of waivers where these apply.

Individual tasks may be delegated but the responsibility remains with the activity leader.

Participants are responsible for their own actions both in relation to obvious risks that may be encountered and also in following the directions/instruction of the leader on any activity.

#### **4.5 Specific responsibilities of the assistant leaders**

If an assistant to the leader is appointed, they must be familiar with the requirements of the activity in order to be able to assume an effective assistant leader role including undertaking activity-specific tasks delegated by the leader, and being able to safely manage the group, including in an emergency, if the leader is incapacitated.

### **5 Equipment**

Equipment requirements vary with the objectives of the activity plan and the environmental conditions likely to be encountered. When planning equipment requirements for a caving activity it is important to plan ahead as much as possible for all eventualities taking into account any appropriate information including forecast weather conditions.

#### **5.1 Group equipment**

The following equipment must be accessible during any caving activity involving dependent groups:

- first aid kit (basic kit to be taken into the cave and an accessible comprehensive kit).
- food and water if cave system warrants it (eating in a cave system should be avoided where possible).

- two watches.
- a pocket-knife.
- notebook and pencil.
- an appropriate “thermal” (e.g. thermal blanket, bivvy bag) wrapping are considered essential in wet caves and are recommended in all cave systems.

The following additional equipment must be available in the cave for any vertical caving activity involving dependent groups:

- all ropes must be appropriate for caving (synthetic kernmantle style, with a manufactured breaking strain of at least 20kn)
- an appropriate rescue system spare ‘emergency’ rope must be accessible when engaging in vertical caving
- both ascending and descending equipment must be carried and must be arranged in such a way that it can be quickly reversed. this is regardless of the intended direction of travel
- unless using equipment that specifies otherwise, there must always be two points of attachment when ascending or transferring on ropes
- appropriate descending devices must be used when abseiling
- appropriate steel wire caving ladders and attachments must be used in conjunction with belay lines.

## **5.2 Participant’s equipment**

The following equipment requirements apply to all dependent participants:

- must wear a helmet with securely attached and fitted chinstrap and a well fitting cradle (construction helmet for example) in horizontal caves although AAS recommend the use of UIAA or equivalent approved climbing and caving helmets
- must carry reliable and independent primary and secondary light sources appropriate to the cave. In most caves within Victoria it is recommended that the primary light source be helmet-mounted or hands-free. This is not compulsory but these allow both hands to be used freely, are often more reliable than hand held torches and prices are now comparable to reliable hand held torches. AAS recommend a third independent light source be carried
- wear long-sleeved and long-legged clothing (shorts are not suitable) appropriate to the cave and conditions
- footwear must have a substantial tread and must be appropriate for the cave and conditions
- open footwear such as sandals or thongs should not be worn in caves and AAS recommend that boots with a sound tread are worn
- carry spare globes and batteries according to activity leaders experience and knowledge of group and conditions
- carry any personal medication and the activity leaders must understand the requirement

The following equipment requirements apply to all dependent participants on vertical caving activities:

- UIAA or equivalent approved climbing and caving helmets must be worn
- Only UIAA or equivalent harnesses must be used
- Primary light sources must be helmet-mounted on vertical caving activities.

## **5.3 Leader’s equipment**

The leader must have the same as the participant plus the responsibility to ensure that all relevant group equipment is correctly carried and access to emergency communication equipment is easy.

## **5.4 Storage and maintenance**

All equipment used in caving activities must be used, maintained and stored according to manufacturers specifications where applicable.

All equipment used must be checked before and after each activity.

All issued equipment must be provided in a clean and serviceable condition.

All ropes used must be carefully checked during the activity.

Where appropriate a log of all equipment use and maintenance be kept current.

## **6 Minimal impact**

The leader and organising body should be satisfied that participants are aware of their responsibilities as members of the group in respect to the environment and the community by following principles of minimal impact practices.

Parks Victoria has a ‘Camping Code’ to help you minimise your impact regardless of the type of camping or activity you undertake. See it at [www.parkweb.vic.gov.au/1process\\_details.cfm?note=19](http://www.parkweb.vic.gov.au/1process_details.cfm?note=19)

The following recommendations draw on the principles of Leave No Trace Australia [www.lnt.org.au](http://www.lnt.org.au).

## 6.1 Travel and camping

- Stay on track.
- Stay on durable surfaces, which include established tracks, rock, gravel and dry grasses.
- Do not create new tracks.
- Always walk on the track even if wet and muddy, on narrow paths walk in single file as much as possible to avoid widening it (with the exception of *Phytophthora* areas where one should avoid mud).
- Do not disturb vegetation as this will encourage erosion and promote the spread of pest plant species.
- Avoid revegetation areas altogether.
- Find out about local vegetation to learn about those that are fragile and those that are resilient.
- Try to unload gear and take breaks on large flat rocks or other durable ground to avoid damaging vegetation.
- In natural areas spread out and walk carefully to avoid trampling.
- Avoid steep areas that are more prone to erosion once disturbed.
- Use established campsites. Take care not to create new ones. Otherwise camp on rock, sands, or gravel where impact is smallest. When these can't be found, then on areas with durable grasses or weeds.
- Actively manage the group at the site to minimise trampling and damage to the surrounding vegetation. (The leader might choose to educate the group and select tent sites for them.).
- Keep campsites small. Focus activity in areas where vegetation is absent.
- Good campsites are found, not made. Altering a site is not necessary.
- Avoid digging, landscaping and trenching around tents.
- When leaving a campsite, "naturalise it". Fluff up flattened grasses, brush away boot prints and replace any rocks that have been kicked or moved.
- Avoid damaging live shrubs, woody plants or branches.
- Protect water sources by camping at least 100 metres from rivers and billabongs.
- Keep the group size small.
- Disperse use to prevent the creation of campsites and tracks.
- Choose durable surfaces for tents and cooking areas.
- Avoid places where impacts are just starting to appear.
- Stay only one night.

## 6.2 Disposal of waste

- Pack and carry out all packaging rubbish and leftover food including organics in sturdy bags.
- Inspect the campsite and rest areas for rubbish and spilled food before leaving.
- Do not burn rubbish.
- Be careful not to drop rubbish while walking on tracks.
- When available, use established toilet facilities.
- In other situations, carry a trowel and deposit solid human waste in shallow holes dug in topsoil – usually 10-15 centimetres deep and at least 100 metres from water, camp and tracks. If toilet paper use is necessary, use it sparingly and bury it deeply or preferably, carry it out. Cover and disguise the hole when finished. (In water catchment areas, human waste should be carried out.)
- Urinate on bare ground away from vegetation, routes and tracks.
- Pack out all hygiene products in a suitable container.
- For personal washing or dishes, carry water 100 metres from streams and pools. Avoid using any soaps or detergents; if they must be used, use only small amounts of biodegradable soaps and detergents. Scatter strained dishwater.
- Hand sanitisers are a good alternative for personal hygiene.
- All campsites must be located at least 20 metres from any waterway.

## 6.3 Do not disturb

### Preserve Nature/Respect Culture

- It is illegal to excavate, disturb or remove archaeological, historical and cultural artefacts from any public or wilderness lands.

- Avoid bushwalking close to Indigenous sites out of respect for the culture and to ensure their longevity. Land managers can advise on these locations. Seek appropriate permission.
- Do not touch rock art, which can be damaged by the natural oils from human skin.
- Preserve the past: observe but do not touch cultural or historic structures and artefacts.
- Avoid bushwalking in areas where rare and vulnerable plants or animals are found. Land managers can advise you of these locations.
- Leave rocks, plants and other natural objects as they are.
- Do not build structures, furniture or dig trenches.

#### **Introduced Species**

- Avoid spreading non-native plant and animal species that are generally impossible to eradicate once they are introduced. Do not transport flowers, weeds, wood or aquatic plants into or out of the wilderness.
- Avoid spreading diseases like Giardia (a human bacterial parasite causing chronic diarrhoea) or Cryptosporidium (a single-celled organism that can cause gastro-intestinal illness with diarrhoea in humans) by properly disposing of human waste at least 100 metres from water.
- Know non-native species and report sightings of them to appropriate sources.
- Do not travel through Quarantine Areas.
- If a trip crosses areas known to contain pathogens (bacteria or viruses), visit the un-infected area first.
- Avoid transporting mud in boots, equipment and tyre treads which may contain Phytophthora (dieback fungal spores) by washing thoroughly before and after travelling. Use wash stations immediately where provided.
- Check clothing and all gear and burn or dispose of all hitchhiker type seeds before and after travelling in different areas.
- Help landowners and managers initiate control efforts by alerting them to infested areas.

### **6.4 Fire impact**

- Fires can cause devastating and lasting impacts to the bush.
- Check area regulations for fire bans. No fire (including a fuel stove) may be lit on a day of Total Fire Ban.
- Total Fire Bans may be implemented regionally so be sure to check daily and be aware of fire regions that cover the route.
- If a Total Fire Ban has been declared, consider cancelling your trip to the area for safety reasons.
- Leaders **MUST** know applicable fire regulations in advance of the trip, as fire regulations are the **LAW**.
- Contact your local fire authority or local land manager for details regarding your local responsibility.
- Preferably use a lightweight fuel stove for cooking and enjoy a candle or gas lantern for light. Consider using candles standing in sturdy clear plastic bags or containers for light instead of fire (non-drip church candles are recommended). Don't leave wax residue.
- Avoid lighting an open fire (even if permitted).
- Where fires are permitted, use established fire rings, fire pans, or mound fires. Dismantle and naturalise any extra fire rings.
- Do not dig fire-pits.
- Judge the wind, weather, location and wood availability.
- Do not make a fire if fuel is scarce. Choose small dead pieces of wood that are found on the ground. Do not break off branches from trees or bushes.
- At least three metres around the fire must be clear of flammable vegetation.
- Keep fires to a minimum size necessary for cooking and minimise disturbance to the surrounding area.
- Manage your fire. Do not leave it unattended.
- Burn wood down to ash. Fires must be completely extinguished with water before leaving the campsite.
- Clean out campfires rings after use.
- Fires should not be used to create heat unless it is an emergency. Carry enough warm clothing so that fires for warmth are unnecessary.
- Be careful of improper cigarette butt disposal. Take butts with you.

### **6.5 Wildlife**

- Observe wildlife from a distance. Do not follow or approach them.
- Understand through education the role each species plays in each environment in order to realise the importance of

its position within an ecosystem.

- Avoid wildlife during sensitive times: mating, nesting, and raising young. Touching nests or young animals may cause their parents to abandon them.
- Never feed wild animals or birds. Feeding wildlife damages their health, alters natural behaviours, and exposes them to predators and other dangers. Store food and rubbish securely.
- Control pets at all times or better yet, leave them at home. All National Parks restrict pets so check regulations first.
- Report any injured animals to the local land managers. Do not attempt to handle the animal.

## 6.6 Consider others

- Take the responsibility to ensure that your group behaves with respect for the hosts and other users. Set out reasons and expectations early in the trip.
- Learn about the cultural history of the land. Recognise, acknowledge and respect local knowledge.
- Respect the wishes and regulations of all hosts. (e.g. Indigenous, pastoral, land managers and locals).
- Never visit places where you have not obtained permission. Seek permission and/or a permit.
- Respect others' wilderness experience by examining the group's behaviours to minimise any negative impact.
- Make reasonable efforts to minimise the impact of the group on others.
- Assist other parties in difficulty provided that this action does not adversely affect the safety of your group.
- Respect other visitors and protect the quality of their experience. Be diplomatic with other groups and other recreational users of the area.
- Be courteous. Give way to others on tracks and roads.
- Do not block paths or tracks with people or equipment. Have rest breaks in discreet places to minimise impact on other groups.
- If possible camp out of sight and sound of other visitors.
- Let everyone enjoy nature's sounds. Keep noise to a minimum. Talk quietly especially when in large groups.
- Avoid the use of bright lights, radios, electronic games, mobile phones and other intrusive urban devices.

## 6.7 Caving specific

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The copyright owner will normally grant a licence without charge to reproduce the Minimal Impact Caving Code, provided that the copyright holder is acknowledged. All requests should be directed to the Secretary.

### Introduction

The need for a Minimal Impact Caving Code (MICC) has evolved over many years as cavers have realised the impact that they have on caves. That impact is so diverse and varied that it has become necessary to devise a caving code that ensures that cavers are aware of the measures that are necessary to reduce their impact on caves.

To those of you who are not or who have just become Australian Speleological Federation (Inc) (ASF) members it is important that you understand that a MICC IS necessary because cavers are one of the major sources of damage to caves. Read the MICC carefully and apply it to all of your caving - it will not completely stop cavers damaging caves but it will certainly reduce their impact on the cave environment. This MICC was devised by cavers FOR CAVES - please assist the Caves of Australia by using these simple MIC techniques. This MICC should be used in conjunction with the ASF Code of Ethics.

### General Cave Visitation

1. Remember EVERY caving trip has an impact. Is this trip into this cave necessary? If it is just for recreation, is there another cave that is less vulnerable to damage that can be visited? Make this assessment depending on the purpose of your visit, the size and experience of the proposed party, and IF THE TRIP IS LIKELY to damage the cave.
2. Where possible the party leader should have visited the cave previously and hence should be aware of sensitive features of the cave, the best anchor points, and generally reduce the need for unnecessary exploration.
3. Cave slowly. You will see and enjoy more, and there will be less chance of damage to the cave and to yourself. This especially applies when you are tired and exiting a cave.
4. If there are beginners on a trip, make sure that they are close to an experienced caver, so that the experienced caver can help them when required, e.g. in difficult sections. Ensure that the party caves at the pace of the slowest caver.
5. Keep your party size small - 4 is a good party size.
6. Cave as a team - help each other through the cave. Don't split up unless impact is reduced by doing so.

7. Constantly watch your head placement AND that of your party members. Let them know before they are likely to do any damage.
8. Keep caving packs as small as possible or don't use them in sensitive caves or extensions.
9. Ensure that party members don't wander about the cave unnecessarily.
10. Stay on all marked or obvious paths. If no paths are marked or none is obvious - define ONE!
11. Learn to recognise cave deposits or features that may be damaged by walking or crawling on them.  
Examples are:- Drip Holes, Stream Sediments, Paleo soils, Soil Cones, Crusts, Flowstone, Cave Pearls, Asphodilites, Bone material, Potential Archaeological sites, Cave Fauna, Coffee & Cream, Tree Roots
12. Take care in the placement of hands and feet throughout a cave.
13. Wash your caving overalls and boots regularly so that the spread of bacteria and fungi are minimised.
14. If a site is obviously being degraded examine the site carefully to determine if an alternative route is possible. Any alternative route MUST not cause the same or greater degradation than the currently used route. If an alternative is available suggest the alternative route to the appropriate management authority and report the degradation.
15. Carry in-cave marking materials while caving and restore any missing markers. Tape off sensitive areas you believe are being damaged and report the damage to the appropriate management authority.
16. If it is necessary to walk on flowstone in a cave remove any muddied boots and or clothing before proceeding OR DON'T PROCEED! Sometimes it is better to assess the situation and return at a later date with the appropriate equipment.
17. Treat the cave biota with respect, watch out for them, and avoid damaging them and their "traps", webs, etc. Also avoid directly lighting cave biota if possible.
18. If bone material is found on existing or proposed tracks it should be moved off the track to a safer location if at all possible. Collection should only be undertaken with appropriate permission.
19. If you eat food in a cave ensure that small food fragments are not dropped as this may impact the cave biota. One way is to carry a plastic bag to eat over and catch the food fragments. This can then be folded up and removed from the cave.
20. Ensure that all foreign matter is removed from caves. This includes human waste. If long trips are to be made into a cave ensure that containers for the removal of liquid and solid waste are included on the trip inventory.
21. When rigging caves with artificial anchors, e.g. traces, tapes, rope etc, ensure that minimal damage occurs to the anchor site by protecting the site. For example protect frequently used anchors, e.g. trees, with carpet, packs, cloth, etc. Bolts should only be used where natural anchors are inappropriate.
22. CAVE SOFTLY!

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## 7 Definition of terms

In the AAS the following terms are used

### **Organisation or activity provider**

This is a commercial body (for profit) or non-commercial body (not-for-profit / community group) which undertakes to provide an activity.

### **Leader**

This is the person who has the responsibility for the conduct of the actual activity. The leader will have a level of skill appropriate to the activity and may be supported by one or more assistant leaders.

### **Assistant leader**

This person will be delegated tasks by the leader and will have a level of skill appropriate to those tasks.

### **Participants**

A person whose welfare is the responsibility of leader or assistant leader and/or who participates in an activity for recreational or educational purposes but not in a leadership role.

### **Terminology**

Some activities have specific terminology for various roles e.g. 'trip leader'. In the AAS the roles are related to the skills, not the title.

Glossary of abbreviations.

AAS - Adventure Activity Standards

ORC - Outdoor Recreation Centre Inc. Victoria

NTIS - National Training Information Service

## **8 Further information**

Further caving information (ASF Caving Code of Ethics (1992), Cave Safety Guidelines (1992) and the full Minimal Impact Caving Code (1995)), contact details for caving clubs and other valuable caving information relevant to Victoria and Australia can be accessed via the ASF website [www.caves.org.au](http://www.caves.org.au).

Land managers such as Parks Victoria [www.parkweb.vic.gov.au](http://www.parkweb.vic.gov.au) and Department of Sustainability and Environment [www.dse.vic.gov.au/](http://www.dse.vic.gov.au/) will also have important safety and environmental information that will be important for the planning and conduct of activities.

The Outdoor Recreation Centre Victoria Inc would like to extend sincere thanks to the members of the working party who invested their own time and expertise to represent their respective organisations in support of this document (details can be obtained from the Outdoor Recreation Centre Inc.)

Version 3.1 – changes made to Section 3.1 Activity plan

Grouping of items and reference to Guidance Note ‘Management of Outdoor Activities for Severe Weather Conditions’