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Tasmanian Adventure Activity Standard

Caving

Advice for Organisations, Guides and Leaders

Tasmania

Explore the possibilities

IMPORTANT DISCLAIMER

The information contained in this publication has been gathered through widespread consultation across the outdoor recreation industry. Nevertheless, the Tasmanian Adventure Activity Standards (AAS) are 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.

The AAS will not, and are not, intended to 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 AAS, providers should carefully evaluate the specific requirements of the intended activity and the persons participating in it and act accordingly. If necessary, providers should obtain advice from suitably experienced and qualified professionals.

This AAS and the information it contains are made available on the express condition that the Crown in Right of Tasmania, its officers, employees and agents, and the consultants and advisors who have assisted in compiling and drafting it, are not rendering professional advice to any person or organisation and make no warranties with respect thereto, and to the maximum extent permitted by law disclaim all liability for loss or injury however arising, including liability for negligence, from the use of or reliance upon this AAS.

Tasmanian Adventure Activity Standard – Caving

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Endorsed by Tasmania's outdoor recreation and adventure tourism sectors

Supported by the Tasmanian Government

PREFACE

Anyone conducting an outdoor adventure activity for a group of dependant participants has a duty-of-care to those participants for the safe conduct of the activity. This Adventure Activity Standard (AAS) has been developed to assist organisations, trip/group leaders and guides to plan and safely undertake outdoor adventure activities with dependant participants (see Definitions, section 5.1).

It has been developed in consultation with community leaders and commercial organisations, and reflects currently accepted practice for caving. Although primarily intended as guidelines for those working with dependant groups, whether commercial or not-for-profit. Peer groups (for example friends or community club members) may also find some of the information useful for the planning and safe conduct of their activities.

Having suitable risk management strategies in place and ensuring the AAS are met should help minimise the likelihood of injury or loss. However, it is recommended that all providers obtain independent legal advice to ensure they understand their duty-of-care obligations under the law in Tasmania. In addition, providers, whether commercial or not-for-profit, should discuss their specific operations and requirements with their insurance broker or underwriter to ensure they have appropriate insurance cover.

Adventure activity standards for a range of activities, along with additional advice on access, communication, developing an operation manual, risk management and emergency planning, can be accessed on the Sport and Recreation website at www.development.tas.gov.au/sportrec/

Note: Commercial operators wishing to conduct tourism-based operations in areas managed by the Parks and Wildlife Service (PWS), Crown Land Services, Forestry Tasmania or the Wellington Park Management Trust are required to have a Commercial Visitor Services (CVS) licence (see section 6.3 for full details).

All operators, whether commercial or not-for-profit, must adhere to the *Department of Education Outdoor Education Guidelines* when working with Tasmanian state schools and colleges. For a copy of these guidelines, please visit the Department of Education's website at www.education.tas.gov.au/outdoor

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ACTIVITY DESCRIPTION

Caving

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

Horizontal Caving

Horizontal caving may include crawling through narrow openings, fording streams and climbing up or down short rock faces.

Vertical Caving

Vertical caving involves the use of ropes or ladders to ascend or descend vertical drops, known as 'pitches.' It may involve extensive rigging, multiple pitches or advanced technical expertise.

The AAS are intended to apply to any introductory caving trip involving dependant participants, whether commercial or not. It is important the individual circumstances of each cave be taken into account when using the standards.

Experienced (peer) groups undertaking caving trips, including complex vertical caves, new caves or cave dives, would be subject to further planning issues not covered by the AAS.

Guided tours through commercial caves are not included in these guidelines.

1 PLANNING

The planning section of the activity standards provides an introduction to the administrative aspects of the AAS that should be documented before undertaking any activity plan.

1.1 Developing an Activity Plan

An activity plan is developed by the leader/organiser and should outline important information for the conduct of the program. Although land managers may not require all of the information it contains, it should be available if requested.

1.1.1 General Considerations

Cave selection is probably the most important consideration when creating an activity plan. Organisations and leaders should select known, mapped caves that meet the objectives of the trip. The following should be included:

- leader/guide to participant ratio (see section 2.6)
- objectives of the trip and desired outcomes
- group size and any gender supervision issues
- group skills/experience levels including age, fitness, medical issues, individual's size and maturity level
- cave type (horizontal, single pitch or multi pitch)
- cave environment (wet, dry and ability of cave to withstand repeated visitation, even with minimal impact)
- access and remoteness of the cave system
- land managers' requirements, including access guidelines, registration and group numbers
- equipment requirements
- overall interest and opportunity to provide a quality, interpretive program.

1.1.2 Selecting the Leader/Guides

When selecting the leader and guide/s for a caving trip it is essential to consider the following:

- The leader and guide/s should have the required competency to conduct the trip effectively, to manage incidents and to satisfy the planned objectives. The competencies should be at a level appropriate to the cave system being visited.
- The leader or a guide on the trip should be familiar with the specific cave system being visited. Exploration trips with participants or clients, or visits to caves previously unvisited by the leader, are not appropriate.

1.1.3 Specific Venues

Caves are among the most fragile ecosystems in nature, and damage caused to habitat, cave formations or sediments may never repair. Therefore, caution should be exercised

over the choice of cave visited, the leadership skills required and the special equipment needed for caving excursions.

Tasmania has a wealth of cave systems, but access restrictions apply in many cases due to land ownership, environmental, technical or safety concerns. Permission and updated access information must be obtained from the controlling authority or landowner where appropriate before entering any cave or cave system (see supporting folder on Access and Further Information, section 6). Contact the local caving club for additional caving information about specific caving conditions.

Note: An ancillary certificate to drive a public passenger vehicle may be required if transporting clients (see www.transport.tas.gov.au/home).

1.2 Weather Forecasts

Planning should include up-to-date weather and fire information, in addition to information on current river levels.

Apart from accessing weather information that is generally available through the media — i.e. newspapers, radio and television – please check the website of the Bureau of Meteorology at www.bom.gov.au/weather/tas/

Further information is available from the local PWS or Forestry Rangers or from the following:

State, Cities and Districts Forecast Service	1900 955 364
Coastal, Land Weather and Flood Warnings	1300 659 216

1.3 Pre-Trip Documentation

Documentation is often seen as a chore and not a minimum requirement. There are, however, certain details a leader and/or organisation should be aware of in order to maximise safety. Pre-activity documentation should include, as a minimum:

- an emergency plan that includes details set out in section 1.5
- names, addresses, medical information*, signed waivers (see Definitions of Terms Used, section 5.1) and emergency contact details for all participants, leaders and guides
- any necessary permits/licences, including compliance with the CVS requirements for commercial organisations and/or park permits
- planned start and finish times, and a program outline.

Throughout the activity, the leader should take reasonable steps to account for any specific medical requirements and treatment plans documented by participants. All documentation should be readily accessible to the leader and a non-participating contact in the event of an incident/emergency, and all individual participants' requirements should be appropriately accounted for throughout the trip.

Participants should read and sign a disclosure of the activity risks and release from liability prior to the activity. This must be supported by a verbal briefing. Participants under the age of 18 should have the signature of a parent or guardian (see Waivers, section 5.1).

*Medical information relates to any condition likely to affect the participant's performance. For example asthma, diabetes, epilepsy, fainting/dizziness, specific allergic reactions, blood conditions that may affect bleeding/blood clotting, conditions affecting balance, recent or long-standing injuries

(for example back, knee and ankle), disability or other relevant medical conditions (for example pregnancy, repetitive strain injury [RSI]) and any relevant medication.

1.4 Risk Assessment and Management

Risk management is 'a process consisting of well-defined steps which, taken in sequence, support better decision-making by contributing a greater insight into risks and their impacts' [*AS/NZ Standard AS/NZS 4360:2004, Risk Management (2004)*].

A systematic assessment of all foreseeable risks should be made, and strategies should be considered as to how to manage, avoid or minimise these risks.

The process should identify all site-specific hazards and other more general hazards such as injuries, water levels, weather and access issues.

Some organisations, such as clubs and commercial operators, may have established risk-management guidelines that cover issues such as standards for equipment and transport, and these should be referred to. It may also be a requirement that this be formally documented (see the supplementary folder – Developing an Operations Manual).

For further information, including planning proformas, see the supplementary folder – Risk Management, and section 7, appendix 2 and the Australian Speleological Federation's Risk Management Policy at: www.caves.org.au/downloads/s_risk_management2007.pdf

1.5 Emergency Planning

Even with appropriate policies and procedures, accidents and emergencies can still occur. They are usually sudden and unexpected, can significantly affect groups and individuals and require an immediate and planned response to contain the situation.

Prior emergency planning helps an organisation to manage an emergency more successfully. It also minimises long-term effects on individuals and organisations and enhances the ability to resume normal functioning. Developing clear emergency procedures and networks prior to the event is an important aspect of this planning.

The emergency plan is designed to help manage foreseeable incidents identified in the risk assessment and any other emergencies that may occur.

Trip leader/s and a non-participating contact should be aware of the emergency plan.

While an organisation may have a general emergency management plan, there should be a specific emergency strategy for each activity/session which should, at least, detail:

- emergency access and emergency escape routes
- emergency contact details for key organisations (such as the land manager and police) and how they are best contacted (for example mobile phone, satellite phone or radio)
- activity program including planned start and finish times of the session
- the emergency "trigger" time for the non-participating contact to inform emergency services on failure of the group to return/check-in
- specific communication equipment being carried by group, for example phone, radio or Emergency Position-Indicating Radio Beacon (EPIRB)
- strategies adopted that are specific to the areas being visited. The trip leader should communicate with the relevant, non-participating contact at designated time/s. Upon failure to do so, the non-participating contact should activate the plan, for example, notify the police or any other party required in the plan.

In the event of serious or fatal incidents, the police are responsible for the management of the incident and all other parties (contact persons) are under the direction of the police. Only the police may notify parents and next-of-kin of any fatalities.

A copy of the emergency plan should be kept with other trip documentation, and be readily accessible to the leader and a non-participating contact in the event of an incident/emergency. An extra copy should be kept with the relevant external contact.

For further information, see the supplementary folder – Emergency Strategies; section 7, appendix 2 and the Australian Speleological Federation's risk management policy at www.caves.org.au/downloads/s_risk_management2007.pdf

1.6 Restrictions to Participation

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 others, including seasonal flora and fauna.

Individual restrictions to a caving trip apply to participants deemed to be under the influence of alcohol or drugs, including prescription drugs, which may affect performance, and to participants who are unable or unwilling to follow instructions. In a very tight cave or where long reach is essential, individual size may also restrict inclusion (see Responsibility of the Leader, sections 1.1.1 and 2.3).

Any caver who fails to provide the necessary medical information prior to the trip should also be excluded from the activity.

2 RESPONSIBILITIES OF TRIP LEADER AND ASSISTANT

This section includes all aspects of the activity plan that involve both the trip leader and the guide. It covers the specific competency required for various types of cave difficulty levels and also basic organisational requirements.

2.1 Competencies

2.1.1 National Outdoor Recreation Training Package

In the absence of any established and recognised national training qualification for caving activity providers, any leader should be confident he or she has skills at least equivalent to those described in the relevant units and levels from the National Outdoor Recreation Training Package (NORTP). See Section 7, Appendix 1.

A statement of attainment for these units is not compulsory. However, the inclusion of this section is intended to provide a suitable benchmark, describing the skills that a leader should have as described within the National Outdoor Recreation Training Package

Where relevant, consideration should also be given to the skills necessary for tourism guiding (Tourism Training Package – Guiding THT02), particularly where an interpretive program is offered, and catering (see section 7, appendix 3 for further details).

2.1.2 Recommended Qualifications for Tasmanian Trip Leaders/Guides

Australian Qualification Framework (AQF, section 7.1), Outdoor Recreation Certificate III (Guides) or IV (Leaders) with specialisations in Caving (AQF Outdoor Recreation) as described above, or:

- Leaders should be active members of an Australian Speleological Association affiliated or corporate member club, and be recognised by that club as ‘leaders’, and be able to verify through logbooks, testimonials and/or tertiary qualifications the following attributes as outlined below:
    - Knowledge of:
        - the Australian Speleological Federation (ASF) codes
        - conduct and ethics
        - caving that is well in excess of that of the participants
        - Tasmanian caves, cave systems and karst management
        - current search-and-rescue procedures, particularly as it relates to the specific cave/s to be visited
        - the safe use and care of equipment involved in the activity.
    - Experience in:
        - leading outdoor activity programs in a number of different localities
        - planning and leading caving expeditions that reflect the needs and capabilities of participants
        - leading expeditions in horizontal caves, vertical caves and active stream caves.
    - Skills that include:

  - competency in route-finding and navigating underground without the aid of any fixed markings such as arrows, cairns or string
  - the ability to follow a cave map.

- At least one leader should have a current Work Place Two First Aid Certificate (see section 2.2).
- In addition to the criteria outlined for horizontal caves, leaders/guides in vertical caves should be able to verify they can:
  - safely rig a pitch with a ladder and an independent belay (for abseil/belay) rope
  - self-belay a ladder climb, and abseil and prusik competently
  - assist a caver/climber in difficulty using appropriate rope rescue systems, and be able to rig pitches to minimise rope abrasion.

Assistant leaders should also have a similar level of caving experience and skill.

Note: Leaders/Guides working with Tasmanian state school or college groups must be registered teachers, or have a registered teacher present during the activity. A police check may also be required of all staff working with such groups.

2.2 First Aid

At least one leader or guide in a caving party should hold an approved Work Place Level Two first-aid certificate (now covered by SRXFAD001A from the Sport and Recreation Package or HLTFA1A from the Health and Fitness Package). The basic emergency plan should also be included in the group briefing to ensure all participants are prepared in case of an accident.

The AAS also recommends that at least one adult should hold a current Remote Area First Aid qualification on any caving trip that is at any point more than two hours from emergency medical attention (see section 7.2 for details of relevant units).

Peer groups may also have to manage incidents likely to require first aid. If there is no-one in the group with a current recognised first-aid qualification, it is advisable that participants consider other measures to manage any injury or illness.

A small, basic first-aid kit should be carried in caves where it is reasonable to do so, and a comprehensive first-aid kit should be readily accessible in the event of an incident/emergency, for example with the emergency/group documentation.

2.3 Specific Responsibilities of the Trip Leader

It is the trip leader's responsibility to ensure the level of knowledge, ability, skills and equipment of each participant is appropriate for the level of difficulty and complexity of the trip, and to obtain agreement from all participants that the leader has the role of leading the group. The following are seen as responsibilities of a caving trip leader. Individual tasks may be delegated, but the overall responsibility remains with the trip leader:

- completing the trip plan
- confirming the group experience/capabilities match the trip to be undertaken
- being aware of, and complying with, the relevant land manager's guidelines for accessing caves

- managing the group's progress, including being aware and in control of the spacing, position and condition of group members
- maintaining constant surveillance/observation of participants to ensure that group members do not get into situations beyond their capabilities
- instructing participants in the use and reasonable care of equipment
- checking the suitability and condition of all equipment prior to departure and on return
- confirming the headcount before entry, during, and immediately upon exit of the cave
- notifying the appropriate external contacts of safe return/completion of trip
- ensuring any incidents are documented and reported
- checking the first aid kit and communication equipment prior to the trip
- researching and planning for likely hazards/incidents/emergencies
- appropriately designating responsibility to guides
- collecting waiver forms signed by all participants prior to the trip (see section 1.3)
- appointing appropriate external contacts to notify State Emergency Services (SES), police etc. if no contact is made by designated times
- ensuring a full briefing is carried out and understood by all guides and participants (see section 2.5.2).

2.4 Assistant to the Trip Leader

All persons acting as guides should be able to provide support and assistance to the trip leader according to the trip plan, as well as manage any incident or emergency according to the emergency plan should the leader become injured or incapacitated (see sections1.4 and 1.5).

2.5 Communication

2.5.1 General Trip Communications

As for all outdoor activities involving group participation, all participants, guides and trip leaders should use an agreed and understood system of communication. It is essential this system is devised before the trip and agreed on as a component of the pre-trip briefing. An example may be found in section 7 of the ASF Cave Safety Guidelines.

2.5.2 Briefings

Every participant requires a clear, full briefing before going underground. This may be delivered differently according to organisational preference and, where relevant, the length and complexity of a trip, but it should include, and is not limited to, each and every element of the following:

- introduction of trip leader, guides and objectives
- basic information about the climate and environment within Tasmanian caves, location geology and the land manager/owner
- strategies for conservation, including flora, fauna and other cave contents, for example sediment, human impacts (do's and don'ts) and rubbish removal

- the nature of the activity, underground hazards, inherent risks and emergency plan including, hypothermia, group conduct and communication requirements
- explanation of toilet arrangements - must be away from any cave entrance or drainage feature, including sinkholes and shafts (see section 4)
- the proposed route, group dynamics and individual responsibilities
- clothing and lighting systems
- equipment, including an explanation of equipment use and correct fitting
- confirmation that participants' clothing, hair and jewellery are appropriate for the planned trip and do not constitute a hazard
- a verbal health check and an opportunity for participants to voice any concerns about their capabilities
- explanation of required documentation, including completion and signing of waivers (see section 1.3).

Consideration should be given to the capacity of non-English speakers to understand briefings and as to whether written briefing sheets in other languages are required.

2.5.3 Equipment check

Prior to departure, the leader must check participants' clothing, lighting systems, food and all equipment.

2.5.4 Other Issues

- Participants should never be coerced into caving, and leaders/guides should be prepared to help participants who experience claustrophobia by providing them with strategies for dealing with this.
- Adequate contact between members of the party should be maintained while in the cave. Normally, each participant should remain in visual contact with the person directly in front of them.
- Training in specific skills may be required before the trip. Participants in vertical caving should be competent in abseiling, belaying and the use of ladders before entering the cave.
- Playing tricks on one another in the dark should be strongly discouraged.

2.6 Ratios and Group Size

A number of variables might affect the leader/group ratios and group size. These include the cave (type, size, difficulty, condition including sensitivity and complexity) and the group (experience, competence, fitness and available equipment). There will be situations where the leader's judgment will dictate the requirement for smaller numbers of participants per leader/guide. Land managers may also suggest ratios that differ from the AAS. The standards within the AAS must be regarded as minimum.

Regardless of these factors, the following apply:

- there should always be at least two individuals with the competency to lead the group on any caving trip
- the leader/guide to dependant participant ratio must never exceed 1:6

- for horizontal caving, the maximum party size must be 12 people and the ratio should be at least one adult for every five dependant cavers. A party must contain at least four members (two of whom should be competent to lead the group as stated above)
- any group of more than 12 participants must be split, and only one group should be in any one cave on any one day
- ratios for vertical caves will be dependent on the cave environment, but will not exceed that for horizontal caving.

2.7 Alcohol and Smoking

2.7.1 Alcohol

The consumption of alcohol by leaders and other assisting leaders when on duty could result in a charge of negligence, or jeopardise their rights under the *Workers Compensation Act* in the event of an accident or mishap to a participant.

2.7.2 Smoking

Smoking should not be permitted while actively involved in any caving activities or near a cave entrance or caving equipment. Appropriate butt storage should be provided, with all butts being removed from the areas and disposed of correctly by smoker or the leader. In Tasmania it is illegal for people under the age of 18 years to smoke, or for anyone to supply them with cigarettes.

2.8 UV (Sun) Protection

Leaders/instructors must ensure they take reasonable steps to prevent or minimise the likelihood of staff and participants sustaining health damage due to exposure to the sun on the way to and from caving venues. This may include encouraging the wearing of suitable clothing, using sunscreen or taking breaks in the shade.

3 EQUIPMENT

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

3.1 Equipment used by the Group

The following equipment should be accessible during any caving trip involving dependent groups:

- a first-aid kit (a basic kit to be taken into the cave, and a comprehensive, easily-accessible kit)
- two watches
- a pocket-knife
- a notebook and pencil
- an appropriate 'thermal' wrapping such as a thermal blanket, or bivvy bag. This is considered essential in wet caves and is recommended in all cave systems
- a repair kit for lights.

The following further equipment requirements should be met for any vertical caving trip involving dependent groups:

- all ropes must be appropriate for caving [synthetic static kernmantle style, with a manufactured breaking strain of at least 20 kilonewtons (KN)]
- an appropriate rescue system, including spare 'emergency' rope, should be accessible when engaging in vertical caving
- both ascending and descending equipment should be carried, and should be arranged in such a way that the direction of travel can be quickly reversed, i.e. appropriate descending/ascending devices should be used when abseiling
- there should always be two points of attachment when ascending or transferring on ropes
- appropriate steel-wire caving ladders and attachments should be used in conjunction with belay lines
- self-rescue equipment, including spare rope, ascenders and pulleys should be carried by the party leader or be readily available should they be required.

The following should be available on the surface:

- spare clothing for individual cavers
- further group emergency equipment such as sleeping bags, and emergency communication equipment available on the surface
- a designated vehicle, available for use in case of emergency.

3.2 Equipment used by the Participants

The following equipment requirements apply to all dependent participants.

- The AAS recommends the use of Union International Association de Alpinist (UIAA) or equivalent approved climbing and/or caving helmets for all caving. Any helmet used must be securely attached with a fitted chinstrap and a well-fitting cradle, and have provision for mounting the main light source.
- Each participant must carry reliable and independent primary and secondary light sources appropriate to the cave. It is recommended the primary light source be helmet-mounted or hands-free, as they 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. The AAS recommend a third independent light source be carried.
- Clothing should be overalls with woollen or thermal tops and bottoms, especially for tight or muddy caves.
- Footwear should have a substantial tread, and should be appropriate for the cave and conditions. Running shoes and open footwear such as sandals or thongs are not suitable.
- Water and emergency food should be carried. Where possible, trips should be planned to avoid meal times and eating underground is to be discouraged.
- In cold or wet caves, spare dry clothing, for example a thermal top and warm beanie, should be carried in a waterproof bag by each member. The leader should carry extra spare clothing.
- Spare globes and batteries must be carried according to the trip leaders experience and knowledge of group and conditions.
- Participants must carry any personal medication and the trip leader and guide/s must understand why and how they are to be used.

The following equipment requirements apply to all dependant participants on vertical caving trips:

- 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 trips
- participants should wear boots with a heel for ladder climbing
- at least two points of attachment should be used for all rigging.

3.3 Equipment Used by the Trip Leader/Guide

- The leader should have the same equipment as the participants. He/she also has responsibility to ensure all relevant group equipment is correctly carried, and there is easy access to emergency communication equipment.
- The leader should ensure group equipment includes a repair kit for lights and a first-aid kit.
- The leader should carry a container appropriate for the use of both sexes to remove body waste to the surface.

For more detailed information, please see the Australian Speleological Federation publication Cave Safety website at www.caves.org.au/downloads/s_cave_safety.pdf

3.4 Equipment Condition, Maintenance and Storage

- All equipment used in caving activities must be used, maintained and stored according to manufacturers' specifications.
- All equipment must be checked before and after each trip.
- All issued equipment should be provided in a clean and serviceable condition.
- All ropes used must be carefully checked before, during, and after the activity.
- A log of all rope use and equipment repair and maintenance should be kept current.

3.5 Communication and Navigation Equipment

- Communication equipment such as mobile phones, radios and Emergency Position-Indicating Radio Beacons (EPIRBs) appropriate to the location should be considered for use above ground for all trips and particularly for overnight/extended trips.
- Service Tasmania operates a commercial EPIRB hiring service for all outdoor pursuit enthusiasts. Units are available for hire from Service Tasmania shops in Hobart, Launceston, Burnie and Devonport (telephone 1300 135 513). For further information, please visit the Parks website at www.parks.tas.gov.au/recreation/epirbs/epirbs.html

  Note: From 1 February 2009, the satellite system, Cospas-Sarsat, will no longer process signals from EPIRBS using 121.5 Megahertz (MHz). From that date, only 406 MHz beacons will be monitored. Those with the analogue 121.5 MHz beacons are being encouraged to make the switch to the digital 406 MHz beacons. For further information, please visit the Australian Maritime Safety Authority (AMSA) at http://beacons.amsa.gov.au/
- With the advent of cheaper, hand-held Global Positioning Systems (GPS), leaders/guides have access to a powerful navigational tool. However, as they are battery-operated and still liable to failure, their use should always be backed up by a conventional compass.
  - In 2003, Tasmania began changing the co-ordinate system used for all maps from AGD 66 to GDA 94. All new and revised maps will be issued in the new format. If the GPS being used does not use GDA94, the satellite-derived coordinates based on the World Geodetic System 1984 (WGS84) should be used, as this is virtually equivalent.
  - To convert map readings from AGD 66 to GDA 94, add 112 metres to the easting and 183 metres to the northing coordinate.
  - For further details on use of GPS, please visit the University of Tasmania website at www.utas.edu.au/spatial/locations/index.html

4 MINIMAL IMPACT GUIDELINES

- The cave environment is a delicate one and a ‘leave no-trace’ ethic must operate.
- Everything taken in must be taken back out again (including human waste). Consideration should be given for larger groups based at a cave reserve to bring a port-a-loo and toilet use must be away from any cave entrance or drainage feature such as sinkholes and shafts.
- Cave ecosystems are extremely delicate and all care should be taken to protect and preserve the local environment. Stay on recognised or marked paths or trails in the cave. Avoid touching all formations as they may fracture, while oils and mud from the skin or clothing may alter or damage the growth processes. Particular care should be taken near streams, in entrances, or in muddy areas to minimise disturbance. There should be no mud fights. Cave softly.
- All fauna in cave systems are protected by law and must not be interfered with in any way. Great care should be exercised in all caves to avoid damaging any fauna, their webs or habitats, as the viability of the population may be threatened by only a small amount of disturbance.
- It is recognised that many popular caves have been poorly looked after, but every effort should be made to respect all caves, whatever their state.
- Cave leaders should share with their cavers an understanding of the need for conservation and the reasons why good caving practices are used.
- Cavers must not smoke or light fires in caves or cave entrances.
- Caving overalls and boots should be washed after every trip to minimise the spread of bacteria and fungi.
- For detailed discussion on care of the environment and further information on ethical cave use and minimal impact caving, please refer to the following websites:
  - Code of Ethics: www.caves.org.au/s_code_of_ethics.htm
  - Minimal Impact Caving: www.caves.org.au/s_minimal.htm
  - Leave No Trace: http://www.lnt.org/

5 DEFINITIONS OF TERMS USED

5.1 Terms

- **Activity Provider** – The provider of the activity. This may refer to an organisation (commercial or non-commercial) and/or a trip leader.
- **Dependant Group** – In the Tasmanian AAS, a 'dependant group', whether commercial or non-commercial, is defined as one where the participants in the activity are dependent on the skills, knowledge and experience of the designated leader for the safe conduct of the activity.
- **Emergency Medical Attention** – Definitive medical attention from a medically qualified person (paramedic, doctor). This may mean getting definitive medical attention to the injured participant/s or getting the injured participant/s to definitive medical attention.
- **Guide** – A person who assumes responsibility for a group of participants on a caving activity with the intention to offer the experience of the activity and to satisfy the objectives of the trip.
- **Organisation** – A group of persons organised for a particular purpose and assuming the role of providing a caving activity that is either of a commercial (for profit) or non-commercial (not for profit/community group) nature.
- **Participant** – A person whose welfare is the responsibility of a guide or trip leader or instructor. (See the National Outdoor Leaders Registration Scheme (NOLRS) for further definition of roles and responsibilities).
- **Peer Group** – While there may be a nominal leader for organisational or administrative purposes, a 'peer group', such as a group of friends or a group of activity club members, is not dependent on any one person for leading the activity but has, between the members of the group, the necessary skills, knowledge and experience for their planned program, and a shared responsibility for the safe conduct of the activity.
- **Remote** – Remote trips are defined in the AAS as any trip that is at any point more than two hours from emergency medical attention.
- **Trip Leader** – A senior guide who assumes the responsibility of the guide and co-ordinates the entire group, including the guides to satisfy the objectives of the trip.
- **Urban** – Urban trips are defined in the AAS as any trips that at no point are more than two hours from emergency medical attention.
- **Waivers or Releases** – A waiver is used to document the fact that participation is voluntary, that the risks involved are acknowledged and assumed, and that the intent is to release the organisation from responsibility for any injury that may occur for the privilege of being allowed to participate. It is called a 'waiver' because it requires the participant to agree to waive his or her rights to sue should an injury occur while participating. It is also called a 'release' because the basic agreement is to release the organisation from liability for any injury experienced while participating. Providers are advised to seek legal advice on the wording of any waiver or release.

5.2 Glossary of abbreviations

- **AAS** – Adventure Activity Standards
- **ANTA**– the responsibilities and functions of the Australian National Training Authority (ANTA) have now been transferred to the Department of Education, Science and Training (DEST), 2005
- **AQF** – Australian Qualifications Framework
- **Cth** – Commonwealth
- **CVS** – Commercial Visitor Service Licensing System
- **NOLRS** – National Outdoor Leaders Registration Scheme
- **NORTP** – National Outdoor Recreation Training Package
- **NTIS** – National Training Information Service
- **ORC** – Outdoor Recreation Centre Inc. Victoria
- **SRTA** – Sport and Recreation Training Australia
- **UIAA** – Union International Association de Alpinist

6 FURTHER INFORMATION

Many streams and rivers in Tasmania, even in the wilderness areas, are now polluted or infected with Giardia. Water should be treated by boiling or with water purification filters, pumps or tablets before consumption.

For a fact sheet on Giardia, please visit the Department of Health and Human Services website at www.dhhs.tas.gov.au/service_information/information/giardiasis_giardia

6.1 Tasmanian Clubs

Australian Speleological Federation
Website: www.caves.org.au/

Mole Creek Caving Club Inc.
Website: http://mole.org.au/

Northern Caverneers Inc.
PO Box 315
Launceston TAS 7250
Website: www.tco.asn.au/oac/community_groups.cgi?oacID=35&groupID=638

Savage River Caving Club
PO Box 364
Ulverstone TAS 7315

Southern Tasmanian Caverneers
Website: www.lmrs.com.au/stc/

6.2 Tasmanian Government Contacts

Bureau of Meteorology
Website: www.bom.gov.au/weather/tas/

Forestry Tasmania
Website: www.forestrytas.com.au/forestrytas/

Police Search and Rescue
Website: www.police.tas.gov.au/policing_services/marine_and_rescue_services
Note: All emergencies are via 000

State Emergency Service
Website: www.ses.tas.gov.au/
Note: All emergencies are via 000

Sport and Recreation Tasmania
Website: www.development.tas.gov.au/sportrec/

Tasmanian Department of Education
Website: www.education.tas.gov.au/

Tasmanian Parks and Wildlife Service
Website: www.parks.tas.gov.au

Tourism Tasmania
Website: www.tourismtasmania.com.au/

Workplace Standards Tasmania
Website: www.wst.tas.gov.au

6.3 Commercial Visitors Service (CVS)

Commercial operators wishing to conduct tourism-based operations in areas managed by one or more of the following authorities are required to have a Commercial Visitor Services (CVS) licence:

- Parks and Wildlife Service Crown Land Services
- Forestry Tasmania
- Wellington Park Management Trust.

The CVS system is managed by the Parks and Wildlife Service (PWS). Further information can be obtained by contacting the CVS section on (03) 6233 3636 or at www.parks.tas.gov.au/permit/index.html

7 APPENDICES

Details of these units can be accessed free-of-charge by logging on to the National Training Information Service website at www.ntis.gov.au

The units are components of national training courses that encompass the specification of knowledge areas and skills relevant to the outdoor recreation industry and the application of that knowledge and skill to a standard of performance required in the workplace.

The inclusion of this section is intended to provide a suitable benchmark describing the skills a leader should have, as described within the National Outdoor Recreation Training Package.

Details of the Australian Qualification Framework can be found at: www.aqf.edu.au/

7.1 Appendix 1: Caving Competencies

GENERIC		**UNIT CODE**
These units relate to the generic competency expected of any individual in a position of leadership or management in the outdoors.	**Leadership and Management Skills**	
	Respond to emergency situations	SRXEMR001A
	Provide first aid	SRXFAD001A
	Facilitate a group	SRXGRO001A
	Deal with conflict	SRXGRO002A
	Undertake risk analysis of activities	SRXRIK001AS
	Apply sport and recreation law	RXINU002A
	Follow defined Occupational Health and Safety policy and procedures	SRXOHS001B
	Outdoor Recreation Skills	
	Navigate in difficult or trackless areas	SRONAV002B
	Plan outdoor recreation activities	SROODR002A
	Guide outdoor recreation sessions	SROODR005A
	Plan for minimal environmental impact	SROOPS002B
	Apply weather information	SROOPS003B
	Use and maintain a temporary or overnight site	SROOPS006B
CAVING		**UNIT CODE**
Horizontal Caving 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
Vertical Caving (single pitch) Any individual who takes the responsibility to be	Demonstrate laddering skills	SROCVE003A
	Apply single pitch abseiling skills in caves	SROCVE004A
	Rig a ladder pitch	SROCVE005A

the leader in a vertical cave system must have the above competency and these caving-specific competencies or equivalent.	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)	SROCVE0021A
	Perform vertical rescues	SROVTR001A
Vertical Caving (multi pitch) 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

7.2 Appendix 2: NORTP Units for Risk Management and First Aid

- First Aid
  - **Basic** - SRXFAD001A - Provide first aid, from the Sport and Recreation Package, or HLTFA1A Provide basic first aid, from the Health and Fitness Package
  - **More advanced/remote area** - SRXFAD 002A - Provide advanced first aid response, SRXFAD 005A Manage casualty in a remote and/or isolated area
- Managing a Critical Incident
  - SRXEMR001A Respond to emergency situations
  - SRXEMR002A Coordinate emergency response
- Managing Risk
  - SRXRIK002A Manage an organisation's risk
  - SRXRIK003A Develop an organisational risk-management policy
- Risk Assessment
  - BSBMGT609A Manage risk
  - SRXRIK001A Undertake risk analysis of activities

7.3 Appendix 3: Tourism and Hospitality Packages

- Tourism Training Package - Guiding (THT02)
  - THTFT 004B Provide campsite catering
- Hospitality Training Package (THH02)
  - THHGHS 01B/01 Follow workplace hygiene procedures
  - THHGHS 01B/02 Follow workplace hygiene procedures

CONTACT DETAILS

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