



Western Australian Adventure Activity Standard

Canyoning

Version 1.3 October 2009



Canyoning

Adventure Activity Standards benchmark the minimum industry requirements and responsibilities for organisations and leaders conducting outdoor adventure activities for commercial and non – commercial groups.

The Adventure Activity Standards are designed to be applied when the participants are, for the purposes of participating in the activity, either

- in a pre-existing group
 - where either the group members (and or its representative third party) have made a collective purchase of / collective decision to participate in the activity (ie a school, corporate or community group); or are
- formed into a new group
 - where the participants have purchased / made the decision to participate in the activity as individuals or smaller groups, but having done so become a part of a new group (ie citizens or tourists who, having purchased an activity from an organisation or leader individually, are formed into a group for the purposes of participating in the activity provided).

In all cases the relationship between the group of participants and the activity provider is one based upon dependence by way of contract and or duty of care.

The existence of other types of groups where the group is less defined and NOT dependent as a group upon an activity provider for the conduct of the activity is acknowledged. (ie independent club members participating in an activity). It is intended that such less defined groups of independent participants are not “captured” by the AAS.

The Western Australian Adventure Activity Standards were developed by an industry wide consultative process coordinated by Outdoors WA following the recommendations of the 2006 State Government Adventure Tourism Visitor Safety Task Force Report. The Project received grant funding via the Department of Sport and Recreation.

The development and implementation of the AAS allows the outdoor adventure industry to demonstrate its collective integrity and agreed standards. This, in turn will provide a measure of quality for the purposes of assisting

1. Consumers of our services to make informed choices about the services they select
2. Training organisations to produce graduates who understand and meet industry standards
3. Media, insurance and legal scrutineers of our industry and its members, to understand what is acceptable practice and what is not
4. The development of sustainable use practices that consider the specific natural and cultural heritage values of areas in which we conduct outdoor activities

The AAS are a critical component of the **industry quality framework** comprising four aligned and inter-connected components

1. **Accreditation** - the required business operating standards for businesses and organisations
2. **Adventure Activity Standards** - the minimum standards to which an activity must be conducted by a provider to dependent groups of participants
3. **Leader Registration Scheme** - the responsibilities and competencies required of the leaders conducting the outdoor activities
4. **Codes of Conduct** – the behavioural expectations of persons operating as outdoor leaders

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INTRODUCTION

The Western Australian Adventure Activity Standards (AAS) have been developed to assist organisations and leaders to plan and conduct outdoor adventure activities with commercial and non-commercial dependent groups of participants where there is a duty of care based in contract and or in authority.

The purpose of the AAS is to maintain the perception of adventure whilst simultaneously reducing / managing the real risk for participants. Increased outdoor physical activity with reduced incident and accident rates will be the ultimate performance indicators of the value of the AAS.

The AAS provide a valuable resource for the development of operating procedures, and or for the purposes of comparing existing operating procedures to industry agreed benchmarked standards. All groups differ in their collective skills and experience and in their degree of dependence upon the leader. They participate in outdoor activities at a range of sites with varying conditions (including weather). It therefore **remains the responsibility of the leader to make the professional judgements and decisions concerning the conduct of the activity to ensure the safety of the group.** The AAS are designed to assist such judgements and decision making.

The AAS are also designed to promote knowledge and awareness of the broad and activity specific impacts increasing recreation and travel opportunities place upon the natural environment. The AAS are designed to assist the protection of biodiversity values and the preservation of cultural sites balanced with the increased access demands. The 7 Principles of Leave No Trace are imbedded within the AAS.

Whilst not statutory standards, the AAS provide the basis for policy formation and decision making by jurisdictions external to the outdoor adventure activity industry including, but not restricted to, licensing, insurance and legal jurisdictions.

ACTIVITY DESCRIPTION

The canyon environment is defined as a deep, narrow, steep-sided (often vertical walled) valley, usually with a flowing watercourse (perennial or intermittent resulting in “wet” and “dry” canyons). A canyon is formed by erosion of the surrounding rock creating waterfalls, log / rock jams and pools. Canyon environments may vary greatly and can include dim light, moving and sometimes cold water.

Horizontal Canyoning involves the ascent and descent of steep water courses where canyoneers can avoid exposure to unprotected edges. This activity involves a combination of multiple skills such as bushwalking, bouldering and swimming (with or without buoyancy aids).

Vertical Canyoning involves horizontal canyoning with the additional consideration of the descent and ascent of vertical (or near vertical) natural features beyond a height of 2 metres and with unprotected edges, including waterfalls. Technical roping techniques such as abseiling and rock climbing are used to manage vertical elements encountered.

Natural canyons may present opportunities for both horizontal and vertical canyoning. Outdoor leaders must make the distinction prior to embarking, although land managers may have previously made this distinction. **The final decision on the risk management of the canyoning activity requires the judgement of the outdoor leader. Such judgements will vary on a site-by-site, group-by-group and day-by-day basis with the height above ground and landing surface being the key determinants.**

ASSUMPTIONS

This Activity Standard makes the following assumptions

MAXIMUM FALL DISTANCE

This is the distance widely accepted as being the maximum distance a person should be able to fall where adequate safety can be implemented by 'spotting' rather than requiring belaying. The distance is measured from the feet of a person standing on the edge to the surface where that person would land should they fall. For this Activity Standard this distance is 2.4 metres.

SIGNIFICANT FALL RISK

This is where a person could fall more than the maximum fall distance onto a rigid surface. If the surface landed on is water, then the water needs to be the greater of a minimum of 2 metres deep or at least as deep as half the potential fall distance for there to be no significant fall risk. The steepness and slipperiness of the face is a subjective assessment on a site-by-site and day-by-day basis.

UNPROTECTED EDGE

This is an edge with a significant fall risk where the natural features force a person to be closer than 2 metres from this edge. The 2 metre edge distance applies to a clean edge on firm rock; without rubble, downward slope and adverse environmental conditions.

This AAS ought to be read in conjunction with the specific standards for bushwalking, abseiling, caving, and climbing.

**** Further details of canyoning operating procedures can be found in the Western Australian Roping Activities Code of Practice located at www.outdoorswa.org***

PLANNING and PREPARATION

The AAS provides a planning and preparation framework considered critical in maximising participant safety and enjoyment. All planning must be finalised and the relevant components written before the activity is undertaken. A suggested planning and preparation framework includes

- Preliminary Information
- Site Plan
- Risk Management Plan
- Emergency Response Plan
- Minimal Environmental Impact Plan

Samples and suggested templates are available at www.outdoorswa.org

Preliminary Information

The following are the minimum information requirements for conducting a canyoning session

- Objectives / desired outcomes of the session (recommended only)
- Planned start and finish times
- Leader to participant ratio and group size (refer Leader : Participant Ratios and Group Size)
- Land/site manager requirements which may include
 - access restrictions
 - group sizes
 - booking and permit requirements
 - current environmental management policies and biodiversity issues affecting the region (refer to www.naturebase.com.au)
 - regulations in regard to fire restrictions and bans
 - indigenous groups' regulations and guidelines
- Equipment requirements (refer Equipment)
- Participants' names and emergency contact details
- Participants' swimming abilities

- Medical information advised by participants which may be relevant to the activity
 - Conditions - asthma, diabetes, epilepsy, fainting, allergic reactions, blood conditions which may effect bleeding/ blood clotting, recent or long-standing injuries, (eg back, knee, ankle), disability, pregnancy, repetitive strain injury, psychological conditions
 - Medications - what is it / why is it required / how is it administered?
- Group members are advised, in writing and or in a verbal briefing, of
 - Potential risks associated with the activity
 - Zero tolerance requirements re alcohol and drugs other than prescription drugs NOT effecting the participant's ability to participate
 - The requirement to conform to responsible and attentive behaviour
- Participant signed legal liability disclaimer (informed consent) / waiver to sue / authorisation to seek / provide emergency medical treatment (retain for a time frame as dictated by the Statute of Limitations Act 2005); dependent participants under the age of 18 must have the signature of a parent / guardian if required by the organisation that has legal responsibility for them
- An understanding of the history of the site

Site Plan

The purpose of the site plan is to assess issues re access, environmental impact, risk and emergency communications relative to a particular site. The site plan ought to provide details of

- assessment of the suitability of the site for the size and profile of the group
- access to and within the site
 - by vehicle (2WD / 4WD) including emergency services vehicles
 - on foot including to and from the nearest car park and to and from the top of the canyon including the best routes to take to minimise environmental impact
 - by rope in the event of an emergency (if required)
- how to make an emergency call (by EPIRB/PLB, mobile or satellite phone, by radio or by a runner party to a land line) and where is the best place to make these calls
- group assembly points
- contingency plans for forecast / foreseeable weather conditions
- canyon type – horizontal / vertical; wet / dry; length of
- flood, potential rock fall, hyperthermia, hypothermia and other risks; how these risks can be managed
- site characteristics (water temperature, water flow rates, air temperature, underwater hazards, difficulty, height)
- opportunities for rest breaks
- toileting facilities and appropriate waste disposal options
- location of drinking and other water sources
- location of any culturally significant areas, structures, artefacts or rock art that need to be avoided
- location of any rare or endangered plants or animals, and sensitive areas
- ability of site to withstand visitation with minimal impact including leaving vegetation undisturbed

Samples and suggested templates are available at www.outdoorswa.org

Risk Management Plan

The purpose of the Risk Management Plan is to identify the human, site specific, equipment and environmental risks for the safe conduct of the activity. By identifying, analysing and evaluating these risks, appropriate strategies to reduce / manage the risk can be developed and implemented.

Canyoning leaders must assess the chosen site(s) for potential hazards and adapt the planning of the activity as required. Information of any new hazard must be made available within the group / organisation and to the relevant land manager.

Samples and suggested templates are available at www.outdoorswa.org

The Risk Management Plan must consider

- Leader(s) have the required authorisation, skills, qualifications and experience to
 - lead the canyoning activity with the specific clients in the specific section of the canyon
 - satisfy the planned objectives
 - effectively manage incidents (refer Requirements of Leaders)
 - preserve the environmental integrity of the activity site and surrounding area
- Leader : Participant ratio (refer Leader : Participant Ratios and Group Size)

- Group size (refer Leader : Participant Ratios and Group Size)
- Group profile
 - Skill / experience levels
 - Needs / requirements
 - Knowledge of environmental minimum impact strategies
- Methods for managing group at all times
 - Participants ahead of the leader
 - Participants behind the leader
 - Participants between leaders

Emergency Response Plan

The purpose of the Emergency Response Plan is to provide a set of steps for leaders to follow in the event of an emergency which may include injury or death. The plan must detail how to minimise the escalation of the situation and the injuries incurred, and how to reduce the likelihood of further incidents occurring. The Emergency Response Plan must be site specific and maintain current details including

- Access and egress options
- Contingency plans for effective rescue with minimum environmental impact to the site
- Group assembly points
- Emergency contact details which may include
 - Police
 - Relevant Agencies (EG Department of Environment and Conservation, land owners, rescue services, Department of Planning and Infrastructure)
 - Options for accessing definitive medical care (hospital, doctor)
- Specific communication requirements / available networks

ALL leaders must carry a copy and be fully aware of the emergency response plan. A copy of the emergency response plan must also be kept (with other documentation) with a non-participating contact and be readily accessible by the leader via an available telecommunication method in the event of an incident / emergency.

The leader is to communicate with the relevant external contact at a designated time(s). Upon failure to do so the external contact must action the emergency response plan which may include contacting the police. In situations where there is only one leader, the emergency response plan ought to have been introduced to, and be available to members of the group so that it may be actioned in the event that the leader becomes unfit to do so.

Samples and suggested templates are available at www.outdoorswa.org

Leader : Participant Ratios and Group Size

Whilst it is acknowledged that the characteristics profile of the group and the site, the purpose of the canyoning expedition, and the experience of the leader will influence the ratios of leaders to participants, the minimum ratios considered acceptable are

▪ Horizontal Canyons One Leader Situations		
Operational Ratio	- applicable for registered leader to actual participants	1:20
▪ Vertical Canyons One Leader Situations		
Operational Ratio	- applicable for registered leader to actual participants	1:8
▪ Vertical Canyons Two+ Leader Situations		
Operational Ratio	- applicable for registered leaders to actual participants	2:20
Operational Ratio	- applicable for registered leaders with additional responsible adult supervisor	1:1:12

Group size will be determined by both site characteristics and the application of the above ratios. Consideration must be given to the adequate supervision of non-participants.

Minimal Environmental Impact Plan - Leave No Trace 7 Principles

1. Plan Ahead and Prepare*

- Where possible provide shelter using tarps, poles etc or if this is not possible choose sheltered waiting areas with durable surfaces, not only for the comfort of participants, but also to reduce the tendency for waiting participants to push back into surrounding vegetation to find shelter

2. Travel and Camp on Durable Surfaces*

- Use boulders and anchors before trees as anchor points
- If there is no alternative to using trees or other vegetation for belay points, protect them from rope damage by using rope padding or a minimum of 50 cm thick webbing
- Protect all plants, animals, historical and archaeological sites and geographic features
- Utilise recognised or designated tracks to approach and move between descents
- Avoid steep access and ascent tracks which will be more prone to erosion
- Manage groups to minimise disturbance to vegetation and erosion
- Select sites that have a rocky top and base capable of tolerating group traffic to minimise vegetation damage and erosion
- Do not brush moss or lichen from the cliff unless absolutely necessary for safety reasons
- Avoid the placement of new pitons or other non-removable protection for anchor points
- Do not fix materials including canvas and carpet to tree roots

3. Dispose of Wastes Properly*

- Canyons are often highly susceptible to contamination by human waste - carry out all waste
- Carry out all rubbish, including foodstuffs as they may harm native wildlife
- Do not use soaps and detergents in canyons
- Urine and washing water waste should be disposed of at least 100 metres from any waterway
- Avoid leaving food scraps that encourage the habituation of native animals

4. Leave What You Find*

- Wash all soil from camping and personal equipment and vehicles before moving between sensitive locations to avoid transporting seeds or soil-borne pathogens such as Phytophthora
- Avoid altering vegetation to better suit canyoning routes and access

5. Minimise Campfire Impacts*

- Observe Total Fire Bans and campfire regulations; liaise with local land management staff

6. Respect Wildlife*

- Try to minimise noise at the canyoning site
- Minimise interaction with wildlife including feeding
- Be aware of the nesting and behaviour patterns of wildlife found at the site

7. Consider Your Hosts and Other Visitors*

- Do not block footpaths with equipment or belayers
- Be aware of and diplomatic with other groups, individual canyoners and other recreational users
- Respect the wishes and regulations of all hosts – indigenous, pastoral, land managers and locals

Further information is available at Leave No Trace Australia www.lnt.org.au

REQUIREMENTS OF LEADERS

The performance of the leader is a critical factor in the safe conduct of a canyoning activity. The leader is required to

- accept responsibility for the planning, preparation and conduct of the canyoning experience
- maintain current skills, qualifications and experience as required
- accept responsibility for the environmental preservation of the site and surrounding area

This does not exclude the fact that participants are responsible for their own actions in relation to the potential risks that may be encountered by choosing to participate in a canyoning activity

Responsibilities of Leaders

Leaders are required to accept the following responsibilities

- to use professional judgement to make decisions that will ensure the safety of all group members and maintain the integrity of the environment including matters relevant to
 - people based risks*
 - collect all documentation / forms signed by all participants / parents or guardians
 - communicate the risks relating to the activity to the group in a pre-activity briefing
 - match the experience / capabilities of the group to the canyoning activities including swimming ability
 - ensure all incidents are documented and reported to Outdoors WA in writing
 - site based risks*
 - obtain a current flash flood warning (if available)
 - appropriately manage hazards including rock falls and drowning risks
 - be aware of and comply with the land/site manager's guidelines including minimal impact
 - manage the whole group effectively; ensure that your group behaves with respect for other users
 - in vertical canyons ensure all participants waiting to descend / ascend a section remain in a designated safe area and are appropriately supervised or directed
 - appoint appropriate external contacts to notify police etc. if not contacted by designated time/s
 - notify appropriate external contacts of safe return / completion
 - equipment based risks*
 - check suitability, condition and use of all equipment prior to, during & on return
 - ensure correct use of equipment by all participants
 - maintain and service all equipment in keeping with manufacturer's specifications
 - ensure that a First Aid Kit and communication equipment suitable for the location are in good order
 - environmental based risks*
 - apply Leave No Trace Principles
 - comply with the land / site manager's guidelines including minimal impact principles relative to flora, fauna and rubbish removal
 - report all environmental damage to the Department of Environment and Conservation or other land manager
 - report any perceived breaches of the Canyoning AAS or the Roping Code of Practice to Outdoors WA
 - ***to be read and applied in conjunction with additional details in the Western Australian Roping Code of Practice***

Competencies of Leaders

Leaders require a range of technical and group facilitation skills to effectively conduct group canyoning activities. Leaders are deemed to be competent to lead canyoning activities if

- they are currently registered in the National Outdoor Leader Registration Scheme (NOLRS)* as a canyoning guide or instructor (NOLRS - administered by Outdoors WA on behalf of the Outdoor Council of Australia) which requires
 - a recognised qualification*
 - sufficient current experience
 - appropriate first aid qualifications
 - within one hour from definitive medical care – Senior First Aid required
 - beyond one hour from definitive medical care – an advanced / wilderness / remote First Aid qualification is required

*** registration with NOLRS must be achieved by 31 January 2011**

*** further information about NOLRS including how to register is available at www.outdoorswa.org**

** the registration achieved must align with the specific form of canyoning to be undertaken ie. Horizontal Canyoning Guide*

OR

In the absence of specific training and or assessment providers for canyoning skills / competencies, the Industry Standards Panel has agreed that the following shall be accepted as minimum industry standards in WA. These requirements are of particular relevance to the Kalbarri and Karijini National Parks

A. Horizontal Canyoning – Outdoor Leaders will be deemed to meet the minimum requirements if they have achieved

- NOLRS Registration for Bushwalking Guide (Difficult and Trackless); AND
- Qualifications / competencies in
 - Bronze Medallion **OR** Surf Rescue **OR** Swiftwater Rescue; and
 - Wilderness First Aid or Remote Area First Aid

Horizontal Canyoning - restricted to leading groups at sites which provide the opportunity for Horizontal Canyoning only including sections of swimming and small vertical drops (which do not require abseils) including potentially slippery rocks and bouldering.

Sites deemed appropriate for Horizontal Canyoning shall be so deemed by a person with the skills, knowledge and experience equivalent to a Horizontal Canyoning Instructor OR the Industry Standards Panel. (This analysis of suitability may result in the establishment of a recognised local and established Canyoning route, or sites assessed and used by specific organisations).

In order to demonstrate currency, an outdoor leader must have verifiable evidence of conducting a site based reconnaissance trip prior to the group's departure.

B. Vertical Canyoning Single Pitch - Outdoor Leaders will be deemed to meet the minimum requirements if they have achieved

- NOLRS Registration for Bushwalking Guide (Difficult and Trackless); and
- NOLRS Registration for Abseiling Guide (Single Pitch Natural Surfaces); and
- NOLRS Registration for Rock Climbing Guide (Single Pitch Natural Surfaces)
- Qualifications / competencies in
 - Bronze Medallion **OR** Surf Rescue **OR** Swiftwater Rescue; and
 - Wilderness First Aid or Remote Area First Aid

Vertical Canyoning - may lead groups at sites which provide the opportunity for Horizontal and Vertical Canyoning including sections of swimming and vertical drops which may or may not require single pitch abseiling or climbing / bouldering

Sites deemed appropriate for Vertical Canyoning shall be so deemed sites by a person with the skills, knowledge and experience equivalent to a Vertical Canyoning Instructor OR the Industry Standards Panel. (This analysis of suitability may result in the establishment of a recognised local and established Canyoning route, or sites assessed and used by specific organisations).

In order to demonstrate currency, an outdoor leader must have verifiable evidence of conducting a site based reconnaissance trip prior to the group's departure.

EQUIPMENT

Equipment requirements vary with the objectives of the activity, the group characteristic profile and the environmental conditions likely to be encountered. When planning equipment requirements for a session it is important to consider all possible eventualities and to select equipment that will minimise cultural and environmental impact of the activity (refer www.LNT.org.au)

HORIZONTAL CANYONING

Participant's Equipment*

The following equipment requirements apply to all participants

- Helmet specifically designed for rock climbing / canyoning and which adheres to UIAA, CE, ANSI or equivalent must be worn whenever there is a risk of falling objects
- Suitable footwear which may include walking boots (dry canyons) and adventure shoes / sandals (wet canyons)
- Appropriate clothing for the canyon selected (wetsuit or equivalent in wet canyons)
- Buoyancy aid (where swimming is required in wet canyons)
- Whistle (recommended)
- Drinking water if the canyon water is not potable
- Participant's personal medication
- Appropriate footwear must be worn both to access the site (where relevant) and for the session

Leader's Equipment*

The following equipment requirements, in addition to that listed above, apply to leaders conducting dependant group canyoning activities

- Whistle
- Spare group equipment including flotation, thermal clothing, flotation, drinking water and snack foods (as required by the selected canyon)

Group Equipment*

The following equipment is required for all dependant group canyoning activities

- Emergency communication equipment (mobile phone, radio, PLB and or details of nearest landline if in remote area etc.)
- A First Aid Kit appropriate for the level of training completed, the type of canyon and the size of the group
- Tools for proper waste disposal (ie trowel if necessary)
- Equipment to clean footwear, tyres, hardware and ropes when moving between areas affected by soil borne pathogens such as phytophthora
- ***to be read and applied in conjunction with additional details in the Western Australian Roping Code of Practice***

VERTICAL CANYONING

Participant's Equipment*

The following ADDITIONAL equipment requirements apply to all dependent participants in vertical canyoning

- Harness specifically manufactured for roping activities including vertical canyoning and which adheres to UIAA,CE or equivalent and is used in accordance with the manufacturer's specifications
- Figure 8 or alternative descender / belay device
- Locking karabiner
- Waterproof gloves (recommended for abseiling components)

Leader's Equipment*

The following ADDITIONAL equipment requirements, in addition to that listed above, apply to leaders conducting dependant group canyoning activities

- Knife suitable for cutting ropes in emergency situations (preferably on a lanyard)
- Spare sling
- A rescue pack of pulleys, prussic loops or ascenders, and a belay device should be readily available

- for rescue
- Whistle

Group Equipment*

The following ADDITIONAL equipment is required for all dependant group canyoning activities

- Ropes and all protective equipment (karabiners, slings and chocks) which adhere to UIAA, CE or equivalent and must be manufactured specifically for rock climbing / canyoning, and used in accordance with manufacturer's specifications and accepted practice
- An additional rope, equivalent to the longest pitch should be accessible for rescue

****to be read and applied in conjunction with additional details in the Western Australian Roping Code of Practice***

DEFINITION OF TERMS

- **Activity Provider** – an entity, person or group of persons assuming the role of providing the activity (the activity provider) for a dependent group of participants for a specific commercial or not – for – profit purpose
- **Dependent Group / Participant** – a group or individual within a group whose welfare associated with participating in the activity is in part the responsibility of the leader; who is dependent upon the leader for their safe participation in the activity which may be so deemed by law or contract
- **Outdoor Leader** - term for an individual accepting the roles of leading and managing the outdoor activity; can be a guide or instructor; can be paid or voluntary; must be a registered leader in NOLRS
- **Responsible Adult** - adult person deemed, by the outdoor leader, as adequately capable of accepting responsibility for selected aspects of the management of the group and or its participants in conjunction with the safe conduct of the activity
- **Competency** - minimum industry agreed standard of skill and knowledge necessary for a specific activity being conducted at a specific level
- **UIAA** – Union Internationale des Associations d'Alpinisme
- **CE** – European Community
- **ANSI** – American National Standards Institute
- **PLB** – Personal Locator Beacon
- **Phytophthora** – Phytophthora Dieback: is a microscopic soil borne water mould that attacks plants. It impacts 40 percent of our native plant species and threatens whole communities including animal habitats. It is spread in the movement of infested water, soil or plant material. As the name water mould suggests, it requires moist conditions to thrive. Its food source is the root and basal stem tissue of living plants. It is currently the biggest threat to biodiversity in Australia and it is spread extensively by human activity. More information is available online at www.dieback.net.au
- **Belay** - technique of controlling the rope so that a participant can not fall very far. This task is assigned to a belayer. The term belay is also used to mean the place where the belayer is anchored. Control of the rope is achieved through applying friction, which allows control of the speed at which the rope slides past the belayer. This friction is generally achieved by forcing the rope through tight bends and past rough surfaces. Belaying is a critical part of the safety system. By using a correct belaying method, the belayer can hold the entire weight of the participant by using relatively little force, and can easily arrest even a long fall. By using a mixture of belaying angle and hand-grip on the rope, a participant can be lowered gently by the belayer to a safe point
- **Bouldering** - a style of rock climbing undertaken without a rope and normally limited to very short climbs so that a fall will not result in serious injury. Bouldering is a style of climbing emphasizing power, strength, and dynamics. Its focus is on individual moves or short sequences of moves. For protection, climbers typically put a bouldering mat (crash pad) on the ground to break their fall and have one or more spotters, who work to direct the climber's body toward the crash pad during a fall, while protecting the climber's head from hazards
- **Spotting** - a technique used where participants are close to the ground and ropes are not used. The spotter stands below the participant, with arms raised or at the ready. If the participant falls, the spotter does not catch the participant but redirects the participant's fall so that they land safely. At the very least the spotter ensures that the participant's head and back do not strike the ground directly. If the participant jumps down, the spotter can also help prevent stumbles and injuries on uneven ground. When spotting you should always use "spoons" (all fingers together) because fingers can be broken if your fingers are spread apart. A spotter should always be used for accident prevention. A spotter will typically hold their arms up with hands in a supporting position for more or less vertical climbs. When the participant falls, the spotter's hands lightly hold the participant's hips or lower back, near their centre of gravity. This allows the spotter to help guide the participant's fall

effectively, helping them keep the centre of gravity over their feet. When on steeper, past vertical activities, the spotter will hold their arms out in a cradling position. If the participant were to unexpectedly fall, the spotter supports the upper and middle back, helping the participant, land on their feet

ACKNOWLEDGEMENTS

The Adventure Activity Standards initially developed by The Outdoor Recreation Centre in Victoria proved to be an invaluable resource in the development of the Western Australian Adventure Activity Standard for Canyoning.

FEEDBACK, REVIEW & APPEALS

The AAS are designed to be 'living' standards with feedback, requests for review and/or appeal against aspects of a standard considered to be healthy part of the development process, one that will ensure the currency & relevancy of the standards. Feedback, requests for review and/or appeals will be managed by the Industry Standards Panel. Details and proformas are available at www.outdoorswa.org / industry quality framework / Industry Standards Panel.

FURTHER INFORMATION

Contact Outdoors WA for further information or to obtain contact details of the organisations conducting canyoning activities and training.

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