

Guide to Canyoning in Class Six Section

Weano, Hancock and Knox Gorges

Karijini National Park



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Disclaimer

This guide is provided to the Department of Conservation and Land Management (CALM) to be passed on to group leaders and guides who are visiting the class six sections of the gorges in the Weano Recreation area. The advice in this guide has been gathered through numerous site visits and many years of roping experience. All reasonable attempts have been made to ensure that it is accurate, relevant and current at the date of publication.

Nevertheless, the guide is only advisory in nature and any advice made therein should be carefully evaluated by qualified and experienced group leaders and guides, taking into account the specific requirements of the group and their abilities. This guide cannot cover each and every specific experience of every group operating within the gorges. Nor can they, if adhered to, entirely eliminate the risk or possibility of loss or injury.

This guide is made available to CALM on the express condition that the authors, consultants and advisors who have assisted in compiling and drafting this guide 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 and responsibility for any direct or indirect loss, damage or liability which may be suffered or incurred by any person as a consequence of reliance upon anything contained in or omitted from this publication.

Draft

Definitions

ABSEILING

Descending a rope using a friction device (also known as *rappelling*).

BELAYING

The controlling of a safety rope attached to a person wearing a harness as a back up in the case of primary system failure or climber fall. Belaying may be done from above or below, depending on the nature of the activity and or the environment.

BRIDGING

A form of bouldering where the climber supports themselves by extending and locking their arms or legs to form a 'bridge' between the rock walls.

BOULDERING

This involves rock climbing within two meters of the ground where adequate safety can be implemented by 'spotting' rather than requiring additional systems of harness, belay, ropes etc.

CANYONING

Traditionally involves the ascent and descent of a steep watercourse and often involves swimming, bouldering and clambering over obstacles. Sometimes involves technical rope work such as abseiling and rock climbing.

CLIMBING

The process of ascending and traversing cliffs, boulders, buildings, walls, ladders, challenge elements on ropes courses and mountains. It usually involves following certain routes on a face that require the use of handholds as well as footholds, while ensuring that specialised equipment is used to establish a safety system or backup. While most climbing is in an upward direction, down climbing and traversing are also included within this term.

COMPETENCIES

The minimum knowledge and skills required to perform tasks such as tying knots, apply first aid, etc.

DYNAMIC ROPE

A rope that is designed to stretch and absorb force when subjected to a shock load in climbing falls. Generally used for climbing and for top-line belaying.

LEAD CLIMBING

Ascending a face, trailing a rope that is clipped to protection placed by the climber on the climbing face or clipped to fixed protection.

LEAD RACK

An assortment of removable artificial protection specifically designed to protect a lead climber where no fixed protection exists.

MULTI-PITCHED ABSEILING AND CLIMBING

Abseiling or climbing where the terrain or the length of the total climb requires the climb to be done in separate pitches, with anchors established at each pitch on the descent/ascent/traverse.

SPOTTING

The process in which one or more individuals are in a position to “catch” a participant in the case of a fall. It does not mean to literally catch a falling body, rather spotters should be directed to be in a position to quickly support the upper part of the participant’s body (specifically the head) in order to minimise potential impact force.

STATIC ROPE

A rope with minimal stretch used for abseiling, hauling and rescue purposes.

TOP-ROPE CLIMBING

Where a climber is belayed from a system that has the belay rope directed through anchors and specialist equipment placed at the top of the climb or abseil pitch. Any fall should be quickly arrested without a significant shock load. The belayer may stand at the bottom of the pitch with the belay line directed through anchors above the climber (sometimes called top-rope climbing with bottom belay, as found in climbing wall situations) OR the belayer may be a part of the anchor system above the climber and be directly in line between the climber and the anchor (sometimes called top rope climbing with top belay).

WET-SHOES

Shoes with a rubber sole providing grip on wet rock that are suitable for constant water immersion.

WETSUITS

Neoprene spring suits (short arm and leg) or neoprene vests for summer months. Steamers (full leg and full arm) for winter months.

Assumptions and Descriptions

The assessment of natural features will always be subjective. This guide makes the following assumptions and definitions:

MAXIMUM FALL DISTANCE

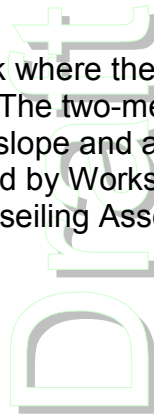
This is the distance widely accepted as being the maximum distance a person should be able to fall where adequate safety can be implemented by 'spotting' rather than requiring belaying. The distance is measured from the feet of a person standing on the edge to the surface where that person would land should they fall. For this guide this distance is two metres. This distance is defined in the Code of Practice – Prevention of Falls at Workplaces and the Adventure Activity Standards – Rock Climbing.

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 two 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 two metres from this edge. The two-metre edge distance applies to a clean edge on firm rock; without rubble, downward slope and adverse environmental conditions. The two-metre recommendation was adopted by Worksafe in 1995 after receiving advice from The Department of Sport and Recreation Abseiling Assessment Panel.



General Risk Management Strategies

There are a number of general strategies that can be used to minimise the risk of an incident while canyoning in the gorges in Karijini National Park. Leaders of any group about to visit the gorges should address the following guidelines:

Group Leader Planning

It is essential that prior to guiding a group through any of the routes described in this guide the leader:

- Has the competencies and experience needed to lead the group on the planned route
- Obtains a current flash flood warning forecast (if available)
- Has an emergency response plan for the planned activity
- Ensures that the leader : participant ratio is acceptable for the planned route
- Informs the participants of the risks associated with the planned route
- Ensures that the participants are fit and agile enough for the planned route
- Ensures that the participants have appropriate equipment, clothing, shoes, and sufficient water
- Has the following information documented for each participant:
 - Medical issues that may affect the ability of the participant to take part
 - Injuries which may affect the ability of the participant to take part
 - Other special needs of the participant
 - Swimming ability (if the route requires swimming)
 - Emergency contact details

Group Equipment

The leader should also have:

- The required equipment and training to handle a routine emergency
- Spare group equipment such as thermal underwear sets, inflatable mattress(es), extra water and snack foods.

Communications

The leader should also have:

- Knowledge of the closest location where emergency communication is available
- Additional emergency communication equipment such as a satellite phone or an EPIRB when leading a group in remote sections of the gorges where such communication is possible.

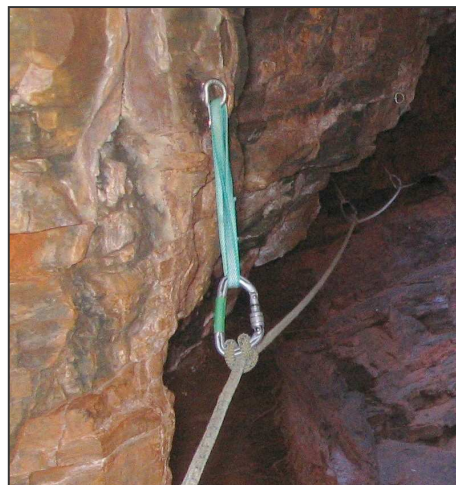
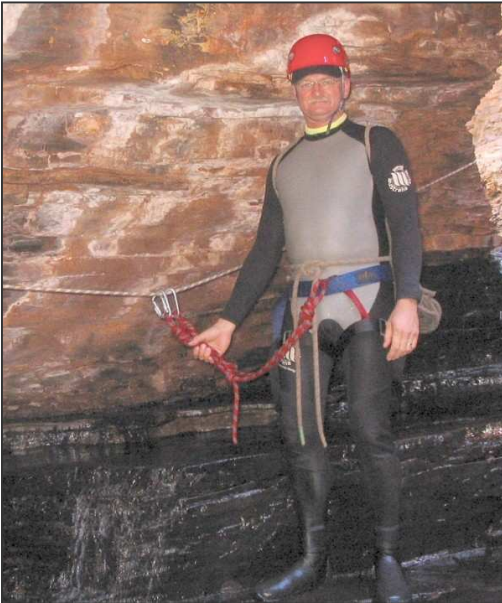
Artificial Anchors Installed in Karijini National Park

Fixed anchors (bolts) utilising chemical adhesive have been placed in Weano, Hancock and Knox gorges where unprotected edges exist. All of the bolted sections are in class six areas and are covered in the descriptions for each gorge section. These bolts were tested and passed in 2005 and 2006 using a proof load test.

Suggested Participant Equipment and Rigging

The bolts have deliberately been installed at a height such that visitors have edge protection using cow's tails attached to static ropes. It is recommended that participants are equipped with at least sit harnesses rigged with two 1m long cow's tails made of 11mm dynamic rope. Having twist-lock karabiners on the cow's tails makes the group management easier.

For edge protection it is recommended that lengths of 11mm static rope with figure eight knots in the ends be attached to the end bolts. The middle bolts should be attached with slings and karabiners, which have been clove hitched into the rope. See the following photos from Weano gorge:



Risk Assessment Weano Gorge

Route: Top of Handrail Pool to Handrail Pool

First Location – Chute above Handrail Pool

Risk Assessment

- The surface of the rock is very slippery leading to a real risk of a fall or slide and fall down the chute to the rock ledge at the base.
- Distance from the top of the chute to the rock ledge at the bottom is approximately 6m, which together with the slippery rock is a significant fall risk.
- Distance from end of handrail to the rock ledge at the bottom of the chute is 3m, which makes it a significant fall risk.
- A knotted static rope supplements the steel handrail, which can provide a false sense of security.
- Safe descent requires good balance, leaning back, and good upper body strength in relation to the weight of the participant.
- The most significant risk is that the existing handrail and knotted rope encourages participants who are neither fit nor agile to attempt the descent, as the perceived risk is low.
- Logged reports and anecdotal history of previous incidents at this site include serious injuries such a broken pelvis and broken leg.

Risk Management

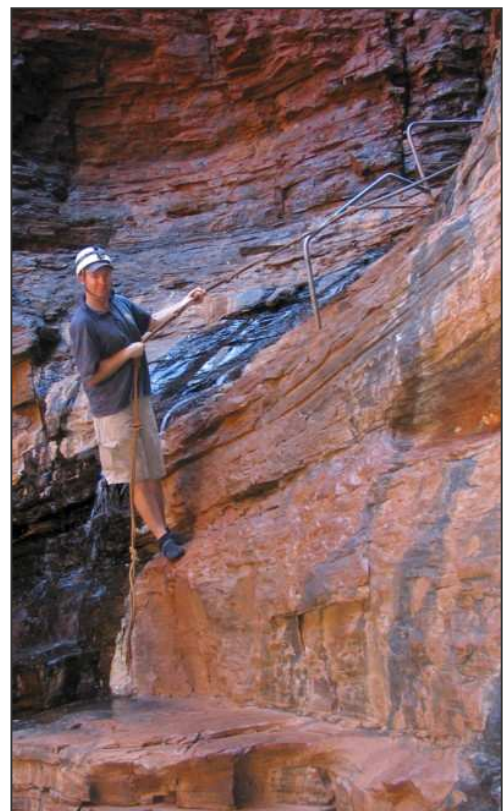
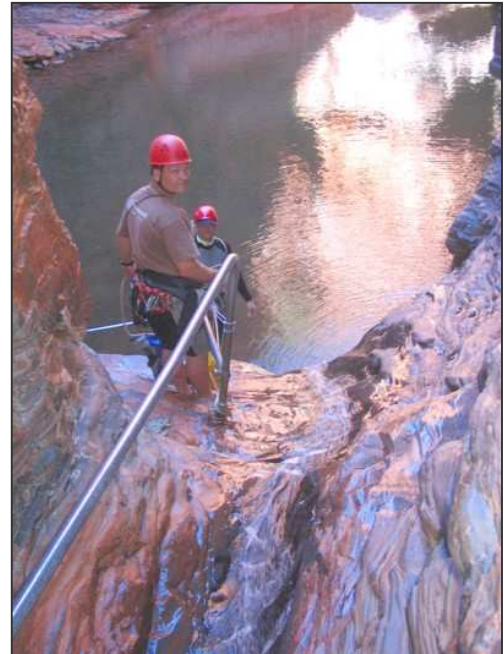
- It is essential that only fit and agile persons descend the chute into Handrail Pool and they are warned of the very slippery conditions.
- It is strongly recommended that all participants be belayed down the chute or are at the very least carefully spotted by the leader.

Communications

- No satellite phone coverage – closest location is at the top of the access track
- There is a emergency radio in the car park near Oxer's Lookout

Guidelines

It is strongly suggested that you belay your group through this section. Even fit and agile people have fallen here and been seriously injured. At the very least have someone at the bottom of the knotted rope to spot and assist the group members.



Route: Handrail Pool to above Jade Pool

Leader Requirements

- First Aid Kit (In waterproof container)

Leader Competencies

- Wilderness First Aid
- Risk analysis and skills and experience in 'spotting'

Generic Risk Assessment

- Risk of rock fall from cliff
- Slipping and/or falling on slippery rocks
- Hypothermia
- Dehydration
- Drowning
- Snake or insect bite
- Flash flood

Generic Risk Management

- It is essential that participants wear helmets
- It is strongly recommended that participants are fit and agile
- It is strongly recommended that participants wear wet-shoes
- It is essential that participants wear wetsuits
- It is essential that participants can swim or have buoyancy aids
- It is essential that all participants carry water
- It is essential that the leader has a current flash flood warning forecast (if available)

Summary of the Route

This section is a canyoning route requiring swimming in cold water, clambering over underwater obstacles, bouldering up and down short drops on slippery rocks. This section ends at the location of the Class Six sign, which is above the waterfall into Jade Pool.

Communications

- No satellite phone coverage – closest location is at the top of the access track
- There is an emergency radio in the car park near Oxer's Lookout

Guidelines

In summer the water is very cold, in winter the water is absolutely freezing. This is regardless of how hot it is above. Be aware that loose rocks commonly fall or are thrown from above, often from Oxer's Lookout.

Second Location – Gorge Past Handrail Pool

Risk Assessment

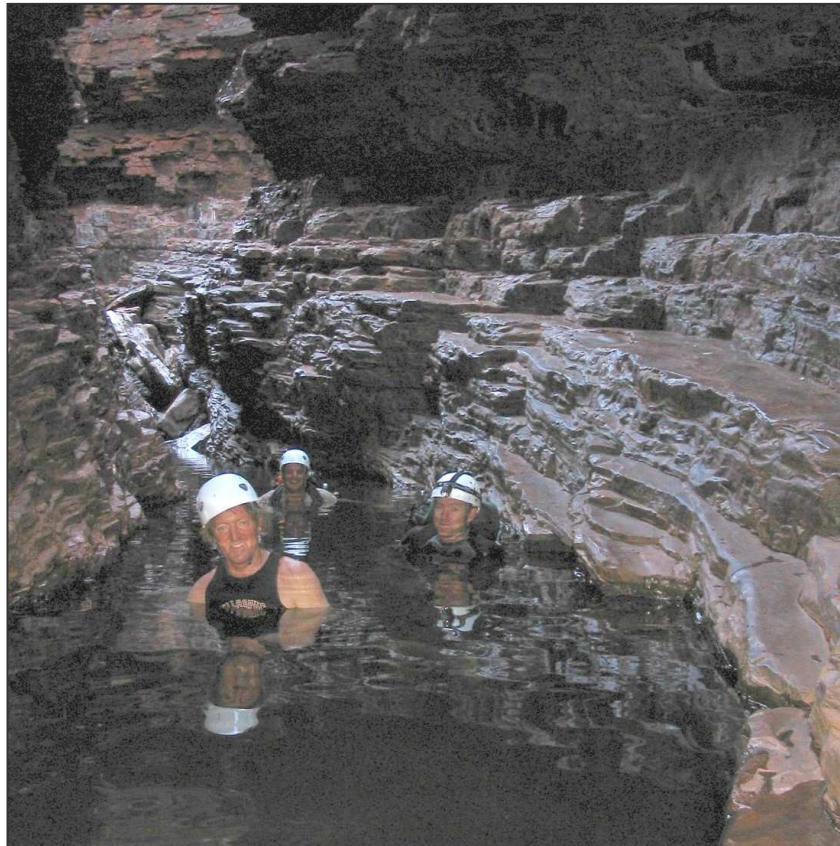
- The ledges up on either side of the gorge are steep, rounded, and slippery and it is often not possible to stand without hitting your head. Any route taken up on either side of the gorge exposes participants to an unprotected edge. The water at the bottom of the gorge is only deeper than 2m at a single point and the gorge is often too narrow to provide a safe landing.

Risk Management

- It is essential that participants remain in the lowest part of the gorge that means they will be swimming for a short distance.

Guidelines

- There is definitely a temptation to try and stay dry by staying high. Unfortunately this is where people have been seriously injured when they slip and fall onto the rocks. The only safe way to get through is to get in the water and swim. The swim is short and you can walk the last quarter of the pool.



Route: Jade Pool to Waterfall at Red Gorge Junction

Leader Requirements

- Minimum roping equipment
 - Helmets, harnesses, wetsuits and two cow's tails for each participant
 - 1 x 15m static rope (4 is more efficient)
 - 5 x 60cm slings or quick draws (10 is better)
 - 12 karabiners
- First Aid Kit (In waterproof container)

Leader Competencies

- Single Pitch Guide Competency – Abseiling/Climbing or equivalent
- Wilderness First Aid
- Risk analysis and skills and experience in 'spotting'

Generic Risk Assessment

- Risk of rock fall from cliff
- Slipping and/or falling on slippery rocks
- Falling from the cliff edge
- Hypothermia
- Dehydration
- Drowning
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants are fit and agile
- It is strongly recommended that participants wear wet-shoes
- It is essential that participants wear harnesses and are belayed on rock climbing sections
- It is essential that participants wear wetsuits
- It is essential that all participants carry water
- It is essential that participants can swim or have buoyancy aids
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Communications

- No satellite phone coverage – closest location is at the top of the access track
- There is a emergency radio in the car park near Oxer's Lookout

Summary of the Route

This section is a canyoning route requiring bouldering up and down short drops on slippery rocks and rock climbing including traversing the gorge walls. All rock climbing requires participants to be belayed.

Third Location – Top of waterfall into Jade Pool – Start of Route Level 6

Risk Assessment

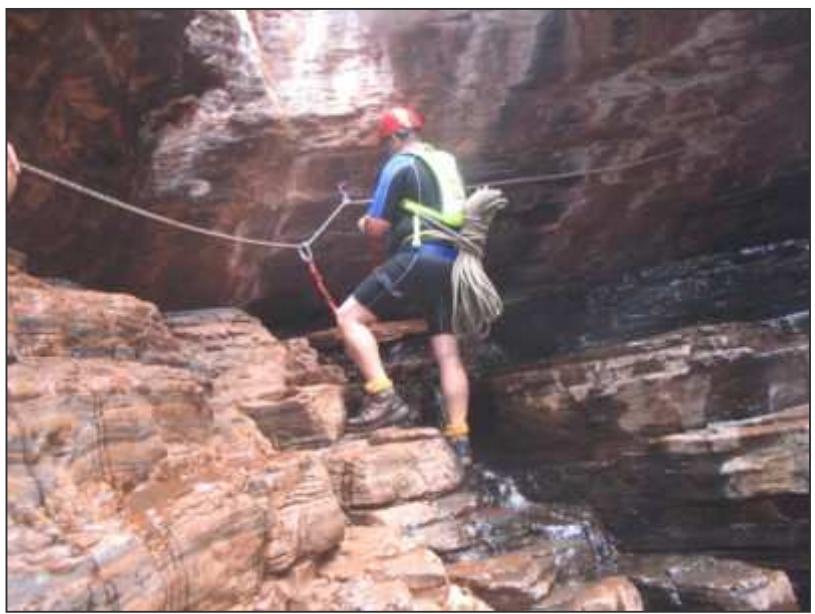
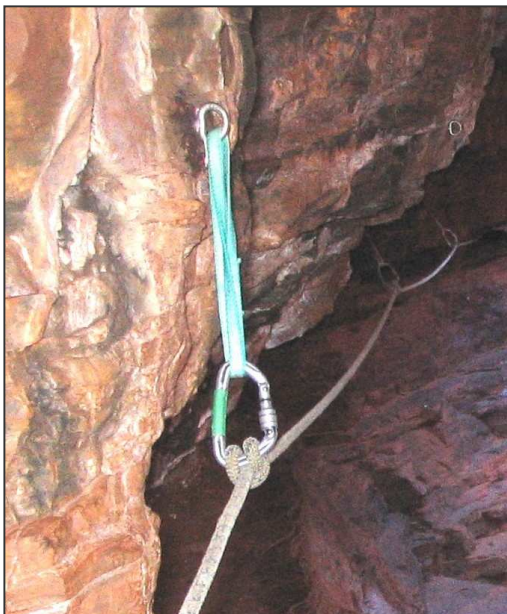
- The top of the waterfall is an unprotected edge. The rock is wet and slippery with sloped, rounded steps that mean there is no clear edge. The fall distance is 5m with a rock bottom.

Risk Management

- The safest route is on the south west side (right hand side if travelling downstream) of the gorge. It is essential that participants be belayed through this section. Bolts have been installed here to simplify the rigging.

Guidelines

- The guide needs to lead climb around (or self belay) the waterfall and rig the static rope with a figure 8 on the bight on each end attached to the end bolts with karabiners. Then rig a sling on the middle bolts with a karabiner with a clove's hitch attached to the static line. (Optionally have a longer static rope and use large Alpine Butterfly (Middleman's) knots instead of slings.) See photos below.
- The participants then use their pair of cow's tails to traverse the section, always leaving one attached to the static line as they go past the bolts.



Fourth Location – Jade Pool

Risk Assessment

- The last half of the route through Jade Pool becomes an unprotected edge with a fall distance of 6m. A fall would result in striking the wall on the other side of the gorge or hitting the bottom of the gorge.

Risk Management

- The safest route is on the south west side (right hand side if travelling downstream) of the gorge. There are bolts provided where there are unprotected edges.
- An alternative route would be to swim the gorge from the deep section of Jade Pool to the end of the pool.



Fifth Location – End of Jade Pool

Risk Assessment

- The final section requires rock climbing to descend to the floor of the gorge.

Risk Management

- The last section of the route has an unprotected edge as the fall distance is 6m and the water is shallow or non-existent. It is essential that participants be belayed as they down climb to the gorge floor.

Guidelines

- The guide needs to lead climb around (or self belay) the unprotected edge and rig the static rope with a figure 8 on the bight on each end and a sling on the middle bolts with a karabiner with a clove's hitch attached to the static line. (Optionally have a longer static rope and use large Alpine Butterfly (Middleman's) knots instead of slings.)



- The participants then use their pair of cow's tails to traverse the section, always leaving one attached to the static line as they go past the bolts.

Sixth Location – Waterfall at Junction with Red Gorge

Risk Assessment

- The waterfall at the end of Weano Gorge is an unprotected edge. The fall distance is somewhere around 40m and the rock are often wet and slippery.

Risk Management

- It is essential that participants are kept back from the edge or are secured by a safety tether into their harness.

Communications

- No satellite phone coverage – closest location is at the top of the access track. (Coverage is intermittent at the bottom of Red Gorge)
- There is a emergency radio in the car park near Oxe's Lookout

Route: Descent of Weano waterfall / chimney into Red Gorge

Leader Requirements

- Minimum roping equipment
 - Helmets, harnesses, karabiners, descenders, gloves, wetsuits and two cow's tails for each participant
 - 2 x at least 40m static rope
 - 1 x at least 40m dynamic rope
 - 1(3 is better) x 15m static rope
 - 4 x 60cm slings or quick draws
 - 8 karabiners
- First Aid Kit (In waterproof container)
- Strongly recommended to have two radios for communications between top and bottom of the pitch.

Leader Competencies

- Minimum Single Pitch Guide Competency – Abseiling/Climbing or equivalent
- Wilderness First Aid

Generic Risk Assessment

- Risk of rock fall from cliff
- Uncontrolled descent of abseil rope
- Abseil off the end of the rope
- Slipping and/or falling on slippery rocks
- Falling from the cliff edge
- Hypothermia
- Dehydration
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants have abseiled before
- It is essential that participants wear harnesses and are belayed on abseiling and rock climbing sections
- It is essential that the rope pitch does not include the waterfall but is alongside it.
- It is essential that the rope length is checked to ensure it reaches the ground before abseiling commences
- It is essential that participants are fit and agile
- It is essential that participants wear wet-shoes
- It is strongly recommended that participants wear wetsuits
- It is essential that all participants carry water
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Summary of the Route

This section is a single pitch abseil that is about 40m in length alongside the waterfall. Care needs to be taken that the participants do not abseil in the waterfall itself, as the water is very cold. This abseil is not for novices, participants need to have abseiled before and preferably on an introductory natural slope in the last few days. It is strongly recommended that leaders have rigged and abseiled at this site previously.



Guidelines

Important: You need to have an exit planned if you abseil the waterfall. Options include Joffre Scree Slope and Hancock Gorge (the Hancock Gorge exit requires you to have additional roping equipment – see Hancock Gorge section).

There are three bolts that have been installed at the end of Weano Gorge for rigging a multi-point equalised anchor system for the abseil and top line belay. It is strongly recommended that a top rope belay rather than a bottom brake belay is used. The last person needs to abseil on a double rope (one option is to tie two ropes together) and then pull down the ropes. At the time of writing there are two stainless steel D-shackles on two anchor points, however, there is still considerable friction when trying to retrieve the double rope. **Haul on the pull down rope from below to check for excessive friction or rope tangles before the last person abseils down or you run the risk of not being able to retrieve your rope.**

Please be aware that the waterfall is very slippery, it takes a very long time to get a group through and getting your top rope belay line snagged is a real possibility. **Do not abseil the waterfall if it is after 2:00pm, as you will not get out before dark.**

Nursery Abseil Site

There is a short, easy abseil available just near the waterfall at the end of Weano Gorge. The dispatch area is at the top of the large block on the left hand side of the gorge. The only issue is access to the top of the block, participants need to climb up the crack under top line belay.



One of the guides needs to lead climb the crack using the bolt to protect the crux. The climb is fairly easy, graded somewhere around a 10 or 11. There are three anchors at the top to rig one or two abseil lines and a top line belay for the climb.

Guidelines

The rock on the edge of the abseil site is quite sharp and will chop out your sheath quite quickly. At the last visit there was a small piece of carpet tied to a tree at the top, which helps reduce rope damage. You still might consider bringing some rope protection if you are planning on using this site.

Be aware that if you plan on abseiling at the nursery site and then the waterfall that both activities are very time consuming and you still need to get out of the gorges before dark.



Risk Assessment – Hancock Gorge

Route: Kermit's Pool to Junction Pool

Leader Requirements

- Minimum roping equipment
 - Helmets, harnesses, karabiners, descenders, gloves, wetsuits and cow's tails for each participant
 - 2 x at least 40m static rope
 - 1 x at least 40m dynamic rope
 - 2 x 15m static rope
 - 14 x 60cm slings or quick draws (or use Alpine knots)
 - 20 karabiners (or 28 if using quick draws)
 - Optionally a caving ladder
- First Aid Kit (In waterproof container)

Leader Competencies

- Single Pitch Guide Competency – Abseiling/Climbing or equivalent
- Wilderness First Aid
- Risk analysis and skills and experience in 'spotting'

Generic Risk Assessment

- Risk of rock fall from cliff
- Slipping and/or falling on slippery rocks
- Falling from the cliff edge
- Hypothermia
- Dehydration
- Drowning
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants are fit and agile
- It is strongly recommended that participants wear wet-shoes
- It is essential that participants wear harnesses and are belayed on rock climbing and abseiling sections
- It is strongly recommended that participants wear wetsuits
- It is essential that all participants carry water
- It is essential that participants can swim or have buoyancy aids
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Summary of the Route

This section is a canyoning route requiring rock climbing including traversing the gorge walls and/or abseiling, swimming in cold water, bouldering up and down short drops on slippery rocks and wading through shallow water. All rock climbing and abseiling requires participants to be belayed.

First Location – Regan's Pool



Route Options

There are two routes to get past Regan's Pool. The first route is a traverse rock climb on the south side of the gorge (right if travelling downstream). The second route is down through the waterfall and across the pool. There is no way to go back using the second route unless a caving ladder or similar climbing aid is rigged alongside the waterfall. The first route is the best experience so this is what has been covered in this guide.

Risk Assessment

- For a long time commercial operators, school groups and the general public have been travelling unroped past Regan’s Pool. This site is a high-risk section of Hancock Gorge; there has been at least one death and several serious injuries at Regan’s Pool. **Group leaders or guides who lead groups past Oxe’s Handle unroped are negligent**
- There have been flash floods at this section resulting in at least one drowning.

Risk Management

- Everyone who leaves the chute to travel up on the ledges past Regan’s Pool must be roped up and belayed. Leaders must be qualified, experienced and have the correct equipment.
- Do not enter or stay in the gorge if it is raining or rain threatens. Try and obtain a forecast prior to visiting the gorge.

Communications

- No satellite phone coverage – closest location is at the top of the access track
- There is an emergency radio in the car park near Oxe’s Lookout



Route One – Traverse Rock Climb – Risk Assessment

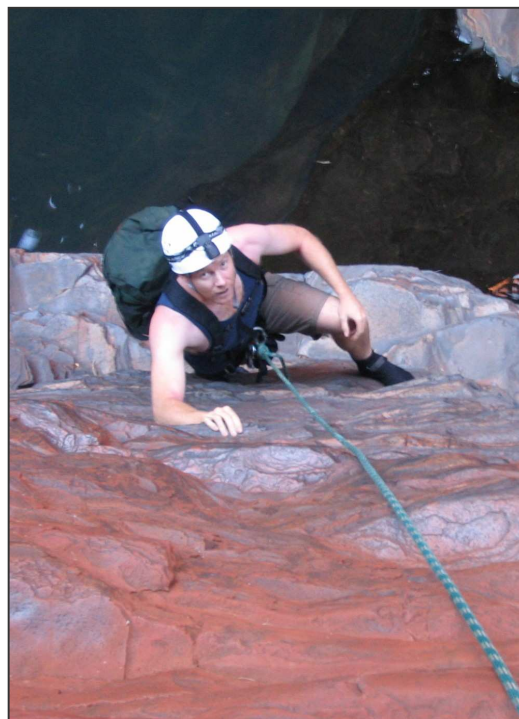
- The first route is a traverse rock climb along the south side of the gorge wall (right hand side if travelling downstream) following the route indicated by paint marks. This route is a medium grade climb with fall distances in excess of 10m with unprotected edges. The primary risk is falling from the edge into the water that is at most 1.6m deep and in some places much less than that.

Route One – Traverse Rock Climb – Risk Management

- It is essential that everyone who attempts to climb around the pool be belayed. Numerous artificial anchors have been installed here.
- It is strongly recommended that participants abseil the last section of the route with a belay rather than down climb this section with a belay. Participants can climb up this route under top rope belay on the return journey.

Route One - Guidelines

- The guide needs to lead climb around (or self belay) the unprotected edge on the traverse route and rig the static rope with a figure 8 on the bight on each end and a sling on the middle bolts with a karabiner with a clove's hitch attached to the static line. (Optionally have a longer static rope and use large Alpine Butterfly (Middleman's) knots instead of slings.)
- The participants then use their pair of cow's tails to traverse the section, always leaving one attached to the static line as they go past the bolts.
- You will need at least a 40 rope for this edge protection system. (See photo above) The group members can gather at the far end of the pool in the open area just before the abseil / belay station.
- The guide then needs to rig a multi-point equalised anchor system for an abseil line down the far end of the pool. There are three bolts provided at the end of the pool to simplify the rigging. (There are no photos of this at present) It is strongly suggested that at least the first participant be top rope belayed down the abseil. Subsequent participants can be bottom braked. The guide will need to abseil on two ropes and pull down the rope at the end. There is little rope drag and minimal risk of the top line belay rope becoming snagged. It is also an option to down climb this route with a top line belay.
- On the return route the guide will need to lead climb the easy route up the crack to the left of the abseil route using the bolts installed. The guide will then rig a multi-point equalised anchor system for a top line belay for the participants to rock climb up the route.
- The participants will then return using the same edge protection system as they used on the way out.
- The guide will then lead climb around back to the start of the climb and de-rig.





Second Location – Gorge before Junction Pool



Risk Assessment

- The gorge is narrow and steep and the easiest route is over wet and slippery rocks. This is a risk that participants could slip and slide down the chute sustaining injury.

Risk Management

- It is essential that leaders brief participants on the safest route and to ‘spot’ participants wherever possible on the descent in this chute
- It is strongly recommended that leaders rig a belay system or a hand line to assist participants in the descent and ascent of this chute.

Communications

- No satellite phone coverage – closest location is the open area near Junction Pool (patchy)
- There is a emergency radio in the car park near Oxer’s Lookout

Third Location – Junction Pool

Risk Assessment

- Junction Pool is deep and the water temperature varies from cold to extremely cold. There is a risk of hypothermia and drowning.

Risk Management

- It is strongly recommended that participants wear wetsuits.
- It is essential that participants can swim or have buoyancy aids.

Communications

- No satellite phone coverage – closest location is the open area near Junction Pool (patchy)
- There is a emergency radio in the car park near Oxer's Lookout

Draft

Section 4: Weano Chimney

Leader Requirements

- Roping equipment including a lead climbing rack
- First Aid Kit (In waterproof container)

Leader Competencies

- Multi-Pitch Climbing Guide Competency or equivalent
- Wilderness First Aid
- Risk analysis and risk management skills
- Competent and experienced lead climber with skills in artificial protection placement

Special Note

It is essential that either:

- All participants are highly experienced rock climbers
- or
- There is an additional experienced guide to assist the leader

Generic Risk Assessment

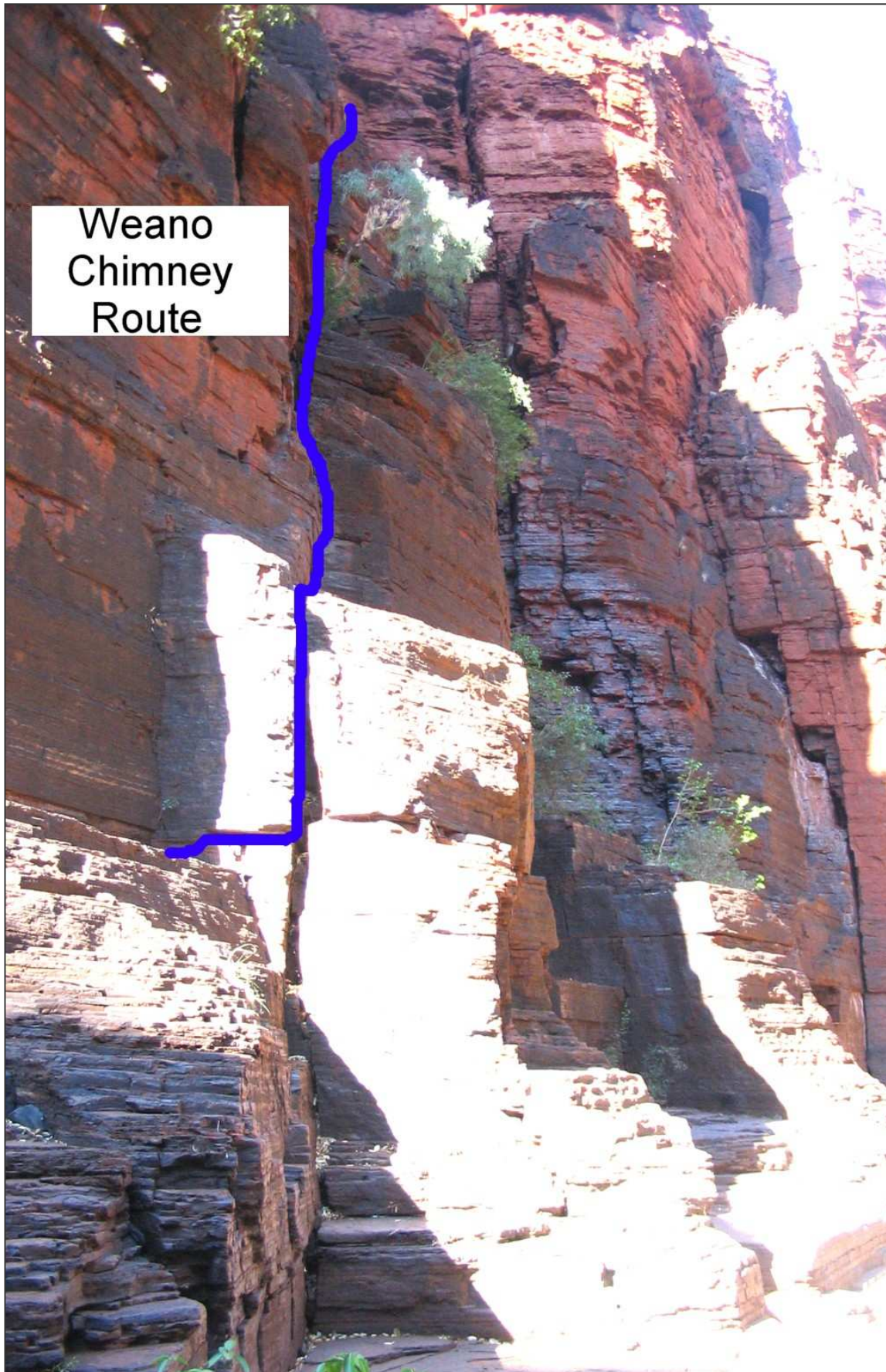
- Risk of rock fall from cliff
- Slipping and/or falling on difficult sections
- Falling from the cliff edge
- Dehydration
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants are very fit and agile
- It is essential that participants wear harnesses and are belayed
- It is essential that all participants carry water
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Summary of the Route

This section is a multi-pitch lead rock-climbing route requiring skills in risk assessment and risk management, artificial protection placement, belay rigging, belaying and rock climbing. This route is challenging and requires participants to be very fit and agile and preferably experienced rock climbers. It would be difficult to lead a group of more than three participants up this route.





Risk Assessment

- This is a high-risk section of the gorge area. The rock climb up Weano chimney has been part of the 'Miracle Mile' route that has been popular with commercial, school and recreational groups in the past. This is the site where numerous deaths and serious injuries have taken place.
- **Group leaders or guides who take their clients up this route unroped are negligent.**
- This route is has numerous unprotected edges and fall distances in excess of 50m

Risk Management

- It is essential that only highly competent and experienced leaders with an assistant or very experienced participants should climb Weano Chimney. Leaders need to carry a lead rack in addition to their other roping equipment and have the skills to lead climb and rig belays. There should not be more than three participants in a group. Participants need to be belayed and have edge protection for the duration of the climb.

Communications

- No satellite phone coverage – closest location is the open area near Junction Pool (patchy)
- There is a emergency radio in the car park near Oxer's Lookout

Draft

Risk Assessment – Knox Gorge

Route: Start of Route Level Two to bottom of second pool

Leader Requirements

- Roping equipment
- Buoyancy aids
- Optionally a caving ladder
- First Aid Kit (In waterproof container)

Leader Competencies

- Single Pitch Guide Competency – Abseiling/Climbing or equivalent
- Wilderness First Aid

Generic Risk Assessment

- Risk of rock fall from cliff
- Risk of floating hazard in first pool
- Slipping and/or falling on slippery rocks
- Falling from the cliff edge
- Hypothermia
- Dehydration
- Drowning
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants are fit and agile
- It is essential that the leader checks the water in the first pool for floating hazards such as logs, etc.
- It is strongly recommended that participants wear wet-shoes
- It is essential that participants wear harnesses and are belayed on rock climbing and abseiling sections
- It is essential that participants wear wetsuits
- It is essential that all participants carry water
- It is essential that participants are strong swimmers and have buoyancy aids
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Summary of the Route

This section is a canyoning route requiring sliding down a chute, abseiling, swimming long distances in cold to very cold water, clambering over slippery rocks and wading through shallow water. All abseiling requires participants to be belayed.

Note: As of August 2006 the Class Six section of Knox Gorge has been closed due to a log jam at the start of the tight section from the floods earlier in the year.

First Location – Chute into first pool



Risk Assessment

- The water in the first pool is in excess of 5m deep with no underwater obstacles. The drop from the edge of the waterfall into the pool is about 4m. The chute leading into the pool is smooth and rounded with an overhanging lip. This means that sliding off the chute into the pool in the sitting position and leaning forward is the best way to enter the pool.
- The gorge is narrow, steep and very slippery above the chute. There is a good chance that participants could slide without control all the way into the chute from the top. This could happen when another participant is in the water below the chute resulting in injury.
- There is always a risk of floating hazards such as logs in the pool

Risk Management

- It is essential that leader manage the descent down the chute into the pool. Participants need to go one at a time and the next participant needs to be in a safe area with no risk of sliding down onto another participant.
- It is essential that the leader brief the participants on the safest body position (sitting down and leaning forward) to be in while sliding down the chute.
- It is essential that the leader checks for hazards in the pool prior to the first person sliding in.
- It is strongly recommended that leaders rig a hand line to assist participants in the descent of the chute until they reach the point where they start the slide into the pool.

Communications

- Satellite phone coverage is patchy from the open area near the Level Two Route sign.

Guidelines

- The water in this section of the gorge is **incredibly cold. In winter the water is deadly. Do not attempt this section without wetsuits. People have been hypothermic even with wetsuits.**
- Artificial anchors have been placed above the first waterfall to facilitate a rescue or to rig a belay on a caving ladder. The bolts for the caving ladder are close to the waterfall on the right hand side and are hard to see from the belay position. They have been placed here so that when you climb the caving ladder you are not in the waterfall. You should only need these if you are returning the way you came, normally you would continue to Junction Pool and exit by the scree slope in Joffre Gorge or by Hancock Gorge (need additional roping equipment)
- The second waterfall should be abseiled or lowered on belay. There are a number of bolts to rig an abseil line on the left hand side as well as safety lines and bolts for a hauling system if required. The bolts are also useful for a caving ladder if needed. **It is possible to jump the second waterfall, however, you need to jump out a long way, a number of people have been seriously injured here.**
- It cannot be emphasised enough the importance of getting to these sites early. It takes a very long time to rig and get a group through these sections. Don't consider this route if you arrive after midday.

Section 3: Bottom of second pool to Junction Pool

Leader Requirements

- Roping equipment
- Optionally a caving ladder
- Buoyancy aids
- First Aid Kit (In waterproof container)

Leader Competencies

- Single Pitch Guide Competency – Abseiling/Climbing or equivalent
- Wilderness First Aid

Generic Risk Assessment

- Risk of rock fall from cliff
- Slipping and/or falling on slippery rocks
- Hypothermia
- Dehydration
- Drowning
- Snake and insect bite
- Flash flood
- Unauthorised persons using or modifying roping equipment or climbing aids

Generic Risk Management

- It is essential that participants wear helmets
- It is essential that participants are fit and agile
- It is strongly recommended that participants wear wet-shoes
- It is essential that participants wear harnesses and are belayed on rock climbing and abseiling sections
- It is essential that participants wear wetsuits
- It is essential that all participants carry water
- It is essential that participants are strong swimmers and have buoyancy aids
- It is essential that the leader has a current flash flood warning forecast (if available)
- It is essential that leaders remove all roping equipment and climbing aids when they move on from each section of the gorge. It is essential that no roping equipment or climbing aids be left unattended and open to unauthorised use.

Summary of the Route

This section is a canyoning route involving abseiling a short drop, swimming for long distances in cold to very cold water, bouldering up and down short drops on slippery rocks and wading through shallow water. Buoyancy aids are essential to assist participants swimming through long pools. To return to the top of the gorge would be through Hancock Gorge or through the scree slope at Joffre Gorge.

Second Location – Descent into second pool

Risk Assessment

- The drop into the second pool is 5.5m and the water is less than 1m deep at the bottom of the second pool. The water is 3m deep 2m out from the edge of the pool. This makes the second descent over an unprotected edge.

Risk Management

- It is essential that the second drop is either a belayed abseil or a lowering under belay by the leader.
- It is essential that leaders are trained and experienced in handling a routine emergency such as a clothing jam while descending the drop.

Communications

- Satellite phone coverage is very patchy from the open area near the Level Two Route sign and then in open areas of Junction Pool.

Guidelines

- A number of artificial anchors have been placed to the side of the second waterfall to simplify the rigging of an abseil line and / or top line belay. There are enough anchors to rig a caving ladder and also to rig a hauling system in the event of an emergency.
- The leader will need to abseil down on a double rope and retrieve the rope at the end.

Emergency Planning

- Some of the issues facing leaders in this section of the gorge are what to do in the event of an emergency. There are sufficient artificial anchors to rig two caving ladders with top line belays so that you could get a group back up the two chutes to the start of the Class Six section if needed. The question is, do you rig the two ladders up “just in case?”. If so, when do you de-rig them? Are you going to carry them with you all the way out of Red Gorge?
- In many ways it makes better sense to get the group into Red Gorge and look at your evacuation options from there. While it is a long way, it may be easier to swim and walk to the scree slope at Joffre Gorge (which is signposted) and scramble up the gully back to the car park at Knox Gorge. Take into account the difficulty of getting out of Knox Gorge when you do manage to get up the two chutes.