



## STANDARD OPERATING PROCEDURE – HIGH ROPES

### EQUIPMENT:

- 18 harnesses (one for each person)
- 5 helmets
- 5 sets of tails (set of custom offset dynamic rope, 2 steel carabiner with double gate safety system and a captive eye, 1 mallion)
- 1 open ended spanner for tightening mallions
- 1 static rope for donkey belay
- 5 alloy carabiner
- 2 aluminium carabiner with double gate safety system and a captive eye
- 1 pulley and 1 steel carabiner
- 1 ladder
- 1 cambuckle strap for attaching ladder
- Rescue Bag = backpack, 1 static Rope, 1 set safety tails (as above), 3 steel carabiner, 1 stitch plate, 1 pair of multi grips.

### EQUIPMENT PACK OUT:

1. Remove all equipment designated for activity from the labeled hook on the rock and rope wall in the gear shed.
2. Inspect each item as per manufacturers recommendations. (Located on gear wall).
3. Place lid on the gear tub and transport to the site prior to the commencement of the activity.

### HOW TO SET UP AT START OF PROGRAM:

1. Attach re-direct pulley with steel carabiner to eye bolt.
2. Use the VB cord to pull the rope through.
3. At the end of the rope thread captive eye carabiner and tie and alpine butterfly 1.8m from the end of the rope. Thread another carabiner onto the rope and tie a figure eight on a bight knot at the end of the rope.
4. Donkey belay set-up. Pass the rope through the pulley redirect. Tie minimum three alpine butterfly knots a distance away on the long length of rope, and finish with a figure of 8 on the bight as the end knot.
5. Attach one carabiner into each knot.
6. Set-up the ladder and secure to the pole using cambuckle.

### SITE INSPECTION:

- If you are the instructor on any Rope Activity you **MUST** conduct an Activity Site Inspection of the activity **PRIOR** to the commencement of that activity.
- The Activity Site Inspection must use the allocated form which is located on the iPad.
- If any items are deemed unsafe, the activity cannot proceed and must be reported to the Program Coordinator.



## ACTIVITY BRIEFING:

### Description of activity

- Provide a description of the activity and why they are participating in the activity (outcomes).
- Explain the different elements of the ropes course and that the design is so different elements can be done in any order or the number of elements completed can be varied depending on the student. Refer to the mud map and talk through all the elements with students.

### Safety instructions

- Explain the risks and hazards to be aware of and how to overcome them (see risk management plan attached to this SOP).
- Explain the different roles and responsibilities of the instructor, teacher, climbers and belay team. Explain what is expected of them with regards to behaviour, where they need to be positioned when they are undertaking their different roles, and where is safe.
- All participants must be wearing appropriate covered in footwear.

### The Buddy System

- Explain the buddy system and form buddy teams. Buddies are for providing positive, encouraging support and to assist the instructor by reminding their buddy of the colour clipping system. Each participant while on the ropes course must have a buddy. Once participants have completed the course the buddy pair will swap roles.
- Ground buddies role is to watch the progress of their climbing buddy. When belay changes are to be made, the buddy observes the first lanyard being moved and resecured to the new critical line. Staff observe the final change and allow climbers to move onto the next element.

### Adult Supervisor (Teacher)

- Teach the adult supervisor (teacher) how to run the donkey belay system and the connection and disconnection of students from the donkey belay.
- Instruct the adult supervisor to stand/sit to the north of the donkey belay team with views south/south-west of the donkey team and the ropes course (see below mud map).
- Assess the competency of the adult supervisor for some participants to ascend (eg. 3). If deemed competent, you are required to be on the course at pole 6 to supervise for the remainder of the session, unless needed to assist a student.
- If deemed not competent, phone the program coordinator to provide a suitable alternative being either the program coordinator, logistic support person or base camp teacher.

## PRE-CLIMB CHECKS

- Rescue bag – check the contents. Attach the safety tails to your harness. Ensure it is in close proximity to your location attached to the hook on Pole 6 or you are wearing it on your back.
- Anchor - look up and check the rope line is clear, and not twisted or obstructed.
- Donkey - Check head to toe: harness, carabineer, rope, clothing, shoes and jewellery.



- Climber - Check head to toe: helmet, hair, clothing, harness, tails, carabineers, jewellery and shoes.
- Establish who is the climbers buddy – 1 up on the course/1 down on the ground.

## DONKEY BELAY SYSTEM

- The donkey belay must have at least 4 people clipped into the belay rope. The donkey team will be clipped into one end of the rope and the climber into the other.
- The donkey team will have the responsibility of keeping the climber safe while they are climbing up to the course and down from the course.
- The donkey team must keep the rope between them and the climber tight by walking backwards as the person climbs up.
- Before leaving the ground the climber and donkeys need to communicate to each other to ensure readiness, under your supervision.

## CLIMBING

- Once the climber has reached the top of the course **BEFORE** they remove the donkey rope they must connect both of their safety tails onto the critical line. The critical line is above head height and is always coloured with blue tape. **ENSURE ALL CLIMBERS ONLY EVER CLIP ONTO THE CORRECT LINE – THE CRITICAL LINE MARKED WITH BLUE ELECTRICAL TAPE.**
- Climbers are to always have one safety tail clipped in and squeeze checked at all times before unclipping the second safety tail.

## HOW TO TRANSFER

- Climber should stand at the platform, facing out (ie with their back to the pole). This ensures their ground buddy can see every step of the change.
- You are to ensure communication between the climber and buddy before the climber removes any safety tails. Enforce a system of blue tail then red tail. Ensure that the sequence is – remove blue tail, transfer it to the new critical line.
- Check at this point that the ground buddy is confident the blue tail is secure at the next critical line
- You are to give the OK to remove and transfer the second (Red) tail following the same steps, and to allow progress on to the next element.
- If possible send a taller student behind a shorter student in case they cannot reach their tails to assist if necessary for clipping and unclipping their safety tails. Notify students that they may use the foot blocks at the junction to assist access to their safety tails.

## RULES OF THE COURSE

- Only 1 climber per element is allowed. Climbers are to wait at the pole junction until an element is clear.
- Maximum 5 climbers are allowed on the course at any one time.
- Every climber **MUST** be wearing a harness, helmet, set of safety tails and have a buddy. The climber must communicate with the instructor and their buddy when they start the course, move to a new element and finish the course.
- The donkey belay team must have 4 participants at all times.



- Participants must use the course as intended by doing the obstacle of the element not holding onto their tails. The tails should be left to trail behind over one shoulder. If the tails must be held then they are to be held together.

## HOW TO SELF RESCUE

- Get feet up onto wire.
- Pull self-up using safety tails or course material.
- Continue on element. (It is likely that a climber will fall once per element).

## HOW TO DESCEND

- Each climber is to return to the top of the donkey belay pole to return to the ground.
- Donkey rope **MUST** be connected to the climber and tight with no slack and communication between the climber and the donkey team ensures they are both ready to go before the safety tails are disconnected.
- Climber is to sit back slowly into harness.
- Climber should be aware of the location of wires, bolts, holds and the ladder on descent. Protect face and body by pushing away with hands and feet.
- Donkey team slowly lowers the person until both feet are on the ground safely. The donkey rope now may be removed and handed to a new climber.

## DEMONSTRATION

- Instructor must use PPE identical to what students use.
- Demonstrate harness & helmet fitting.
- All students to put a harness on at the beginning of the activity, to be checked by the instructor and are not to remove or adjust their harness at any time.
- All participants to be checked by instructor to ensure correct fitting.
- Using the practice rope course:
  - Have each student practice how to transfer to different elements and the role of the buddy. Climber should stand at the platform, facing out (ie with their back to the pole). Enforce the sequence is – remove blue tail, transfer it to the new critical line and conduct a squeeze check. Check at this point that the ground buddy is confident the blue tail is secure at the next critical line. You are to give the OK to remove and transfer the second (Red) tail following the same steps, and to allow progress on to the next element.
  - Have each student practice falling off the element, being caught by their safety tails and be able to do a self rescue.

## SUPERVISION LOCATIONS

The Instructor Supervision Positions are:

- a) At the commence of the sessions you are to stand adjacent to the starting point of the course at pole 1, near the ladder, donkey belay team and tree.
- b) Once the session is running and some participants have ascended (eg. 3) instructors are to move onto the course to the platform at pole 6 to supervise for the remainder of the session unless required to assist a student.

At the commence of the session: position a) is required to ensure the donkey belay works as intended and to assess the competence of the assisting adult supervisor to connect new climbers. This position is slightly elevated from the base of the course which enables reduced



height angle of supervision to the course. It enables close proximity (1-2 meters) to the donkey belay team, the first clipping of donkey belay line, climbing of the ladder and transfer of the participant to the critical line.

The move to the platform at pole 6 is to ensure that you have the best view of belay changes and quick access to any climber requiring assistance. Rescue kit to be positioned with you at all times (e.g. wearing the rescue backpack or hanging on the designated hook on the tree or pole 6).

Both designated positions enable full and uninterrupted view of the full high ropes course within one field of view, that is you do not need to move your head to see different aspects of the course. See High Ropes Mud Map below for designated instructor supervision locations.

Instructors need to check the attitude and competence of all participants before ascending the course and during the activity.

## **EMERGENCY PROCEDURES:**

### **Scared participant:**

- If a participant becomes scared, talk them through their concerns to continue. If their fear cannot be overcome, the participant is to come back to the beginning and the descending procedure followed. You may need to physically guide a participant back.

### **Injured participant:**

- If a participant is injured and requires urgent medical attention, you are required to go out to the participant using the safety tails provided and lower the participant to the ground using the rescue bag.
- Once at the participant, the rescue rope is to be removed from the rescue bag. The carabiner with the figure of 8 is to be connected to the participant through the harness belay loop. The carabiner with the stitch plate is to be connected to you through your harness belay loop. The middle carabiner is to be connected to the top critical line or eye bolt whichever is closer. Using the stitch plate connected to you take in all of the slack rope and lock off the device. Remove the participants safety tails, unlock the device and then lower the participant to the ground.
- Incident Management procedure is to be followed once on the ground

### **Unconscious Participant**

- If a participant is unconscious and requires urgent medical attention, you are required to go out to the participant using the safety tails provided and lower the participant to the ground using the rescue bag.
- Once at the participant, the rescue rope is to be removed from the rescue bag. The carabiner with the figure of 8 is to be connected to the participant through the harness belay loop. The carabiner with the stitch plate is to be connected to you through your harness belay loop. The middle carabiner is to be connected to the top critical line or eye bolt whichever is closer. Using the stitch plate connected to you take in all of the slack rope and lock off the device. Remove the participants safety tails by cutting them away, unlock the device and then lower the participant to the ground.



- If you deem necessary, attached yourself to the participant, remove your own safety tails and lower down with them.
- Incident Management procedure is to followed once on the ground.

## **HOW TO PACK UP:**

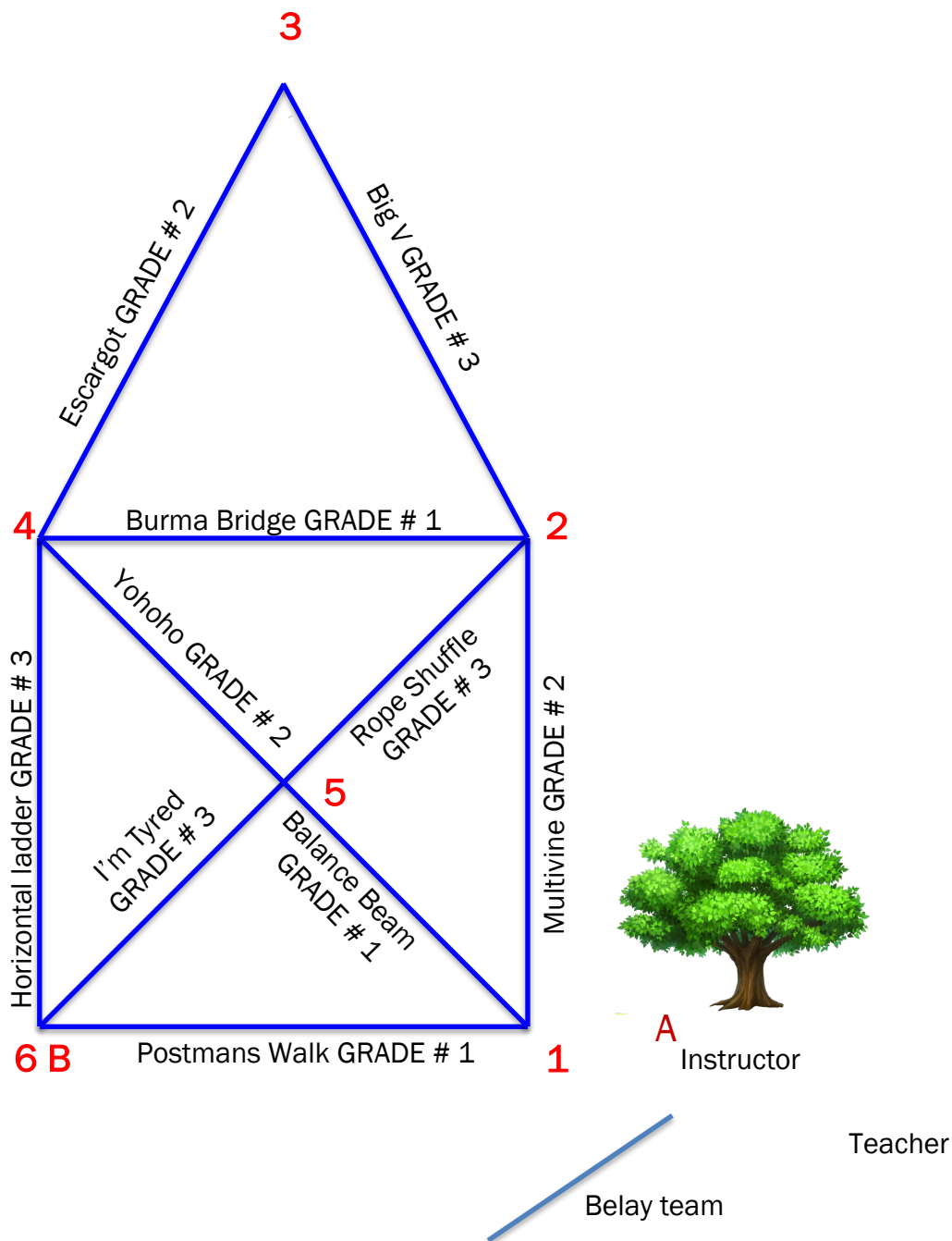
### **End of Session/Day:**

- Leave the donkey rope up, coil neatly so it is not hanging on the ground.
- Crack any knots to make it easier to undo at the end of the week.
- Remove tails from harnesses and place in tub.
- All harnesses must have all straps loosened so they are as big as they can be (please check this and don't rely on the participants or teachers telling you they are okay). Place in tub.
- Helmets and rescue bag should also be placed in the tub and the lid secured.

### **End of week:**

- Pull down both the rope (replace with VB haul cord) and coil neatly.
- Remove tails from harnesses and place in tub.
- All harnesses must have all straps loosened so they are as big as they can be (please check this and don't rely on the participants or teachers telling you they are okay). Place in tub.
- Take ladder down and replace on ground near tree.
- Bring all gear back to the shed in the gear tub and leave next to the rope wall.
- Notify Program Coordinator if there are any issues with gear and tag with flagging tape, writing on the flagging tape as to the issue with the item.
- Program coordinator to assign de-issue to staff member at the end of camp.

# HIGH ROPES MUD MAP



## HIGH ROPES - Risk Assessment & Management Strategy

This risk management plan covers all high ropes activities including the high ropes course, vertical play pen, flying fox, giants ladder, glider possum, milk crate climb, mission possible, dangle duo and big ben.

Hazard	Potential Hazardous Outcome	Risk Assessment Before Management Strategy LOW, MEDIUM, HIGH, EXTREME Likelihood & Consequence (0-5) (1-5)		Management Strategy	Risk Assessment After Management Strategy LOW, MEDIUM, HIGH, EXTREME Likelihood & Consequence (0-5) (1-5)	
Equipment Failure (structural component)	Injury caused by falling to the ground	1	3	<ul style="list-style-type: none"> <li>Ensure damaged equipment is repaired or replaced.</li> <li>Conduct visually inspections of rope course elements and safety equipment</li> <li>Provide regular check and training for staff</li> <li>Continually monitor equipment throughout the activity</li> <li>Ensure inappropriate use of equipment is discontinued</li> <li>Conduct six monthly inspections</li> </ul>	1	3
	Injury caused by contact with failed equipment	MEDIUM			MEDIUM	
Other Equipment Failure (helmet, rope harness, karabiner, sling)	Injury or impact due to fall	1	3	<ul style="list-style-type: none"> <li>Ensure equipment is inspected on each use</li> <li>Inform participants on some of the applications and limitations of the gear</li> <li>Demonstrate and monitor participants management of gear</li> <li>Ensure gear is retired periodically and replaced and damaged gear is retired immediately</li> </ul>	1	2
		MEDIUM			LOW	
Loss of footing or balance	Soft / Hard Tissue Injury	3	2	<ul style="list-style-type: none"> <li>Established session guidelines</li> <li>Brief participants on appropriate manoeuvres while traversing elements and belaying</li> <li>Ensure participants are wearing appropriate covered footwear</li> <li>Assess participants competence and understanding prior to climbing and provide further training if necessary</li> <li>Instructor safety check of attitude and competence prior to the activity</li> <li>Encourage peer evaluation and feedback</li> </ul>	2	1
		MEDIUM			LOW	
Irresponsible Participants	Soft / Hard Tissue Injury	3	3	<ul style="list-style-type: none"> <li>Maintain vigilance in group management</li> <li>Instructor safety check of attitude and competence prior to the activity</li> <li>Identified activity guidelines</li> <li>Peer evaluation and feedback</li> </ul>	1	2
		HIGH			LOW	



Hazard	Potential Hazardous Outcome	Risk Assessment Before Management Strategy LOW, MEDIUM, HIGH, EXTREME Likelihood & Consequence (0-5) (1-5)		Management Strategy	Risk Assessment After Management Strategy LOW, MEDIUM, HIGH, EXTREME Likelihood & Consequence (0-5) (1-5)	
		1	3		1	2
Vegetation Fall	Soft / Hard Tissue Injury	MEDIUM		<ul style="list-style-type: none"> <li>Conduct visual inspections of ropes course elements before use</li> <li>Avoid or remove loose vegetation</li> </ul>	LOW	
Participant Error resulting in entanglement, rope burn, side swing, impact of body on cables/trees	Emotional trauma or physical injury	HIGH		<ul style="list-style-type: none"> <li>Sequence technical development prior to the activity</li> <li>Identify strategies with participants to avoid complications</li> <li>Instructors attend rescue sessions to continually develop competence</li> </ul>	MEDIUM	
Belay Failure	Injury due to loss of friction in the belay system	HIGH		<ul style="list-style-type: none"> <li>Brief participants on appropriate belay procedure</li> <li>Assess participants competence and understanding prior to climbing and provide further training if necessary</li> <li>Provide regular check and training of participants</li> <li>Inspect equipment before use</li> <li>Use back up belay systems</li> <li>Encourage peer evaluation and feedback</li> <li>Instructor safety check of attitude, knots, belay devices and carabiners prior to each use</li> </ul>	LOW	

### Legend

Score	Assessment of Risk	Priority of Action
1-2	LOW	Address or repair if low cost. Schedule for action after other risks have been controlled.
3-7	MEDIUM	Further improvements required: assess feasibility for risk controls; sign off required if the risk/s are to be accepted.
8-12	HIGH	Risk controls required as soon as possible.
+13	EXTREME	Immediate attention required. Consider shutdown or cessation of process until additional risk controls are implemented.

# Instructional Video

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## Document Control

Date	Author	Reviewer	Date
31/05/18	C. Samorowski	T. Samorowski	5/06/18
		S. Mayo	29/7/18
		B. Robson	4/8/18
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