



NNSW YOUTH

Activity Risk Assessment

Caving

<u>MEASURES</u>	
Consequence	Likelihood
<u>Very High - Fatality/Multiple Hospitalisations</u> <ul style="list-style-type: none"> Multiple life-threatening injuries with the same cause which requires immediate treatment as in-patients in a hospital. 	<u>Almost Certain</u> Is expected to occur in most circumstances.
<u>High - Extensive Injuries / Hospitalisation</u> <ul style="list-style-type: none"> Serious life-threatening injury which requires immediate treatment as an in-patient in a hospital. 	<u>Likely</u> Will probably happen in most circumstances.
<u>Moderate - Medical Treatment</u> <ul style="list-style-type: none"> An injury which requires medical treatment. 	<u>Possible</u> May occur at some time.
<u>Minor - First Aid Treatment</u> <ul style="list-style-type: none"> A non-life-threatening injury which can be adequately treated by a qualified first aider. 	<u>Unlikely</u> Could occur from time to time.
<u>Negligible - No Treatment</u> <ul style="list-style-type: none"> A non-life-threatening injury that does not require treatment. 	<u>Rare</u> May occur in exceptional circumstances.

<u>MATRIX</u>		<u>Likelihood</u>				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence	Very High	High (12)	Very High (17)	Extreme (21)	Extreme (24)	Extreme (25)
	High	Moderate (10)	High (15)	Very High (19)	Extreme (22)	Extreme (23)
	Moderate	Moderate (6)	Moderate (9)	High (14)	Very High (18)	Very High (20)
	Minor	Minor (3)	Moderate (5)	Moderate (8)	High (13)	High (16)
	Negligible	Minor (1)	Minor (2)	Moderate (4)	Moderate (7)	Moderate (11)

<u>RISK RATING</u>	
21-25	Extreme
17-20	Very High
12-16	High
4-11	Moderate
1-3	Minor

<u>RISK CONTROLS</u>
<u>Elimination</u> Removal of hazard.
<u>Substitution</u> Replacing (wholly or partly) with something that is a lesser risk.
<u>Isolate</u> Isolating the hazard from any person.
<u>Engineering</u> Redesign the activity or equipment.
<u>Administrative</u> Information, training, instructions, signage, etc.
<u>PPE/ PPC</u> Personal Protective Equipment & Clothing.

Definitions:

Hazard A situation or thing that has the potential to cause harm to a person or equipment.

Risk The possibility that harm (death, injury) might occur when exposed to a hazard.

Risk Control Taking action to eliminate a health and safety risks so far as is reasonably practicable, and if that is not possible, minimising the risks so far as is reasonably practicable. Eliminating a hazard will also eliminate any risks associated with that hazard.

Consequence The effects of either the risk or hazard.

Likelihood The chance in which the risk or hazard are likely to happen.

Activity Risk Assessment

Caving

Staff/Leadership Team

Description:

Caving within a known environment and which does not encompass unexplored caves.

Caving activity within this SOP Risk Assessment is governed by 2019 Outdoor Council of Australia for caving which indicates **4 levels of difficulty**:

1.1 Caving, & **1.2** Simple caving, both needs the leader to be competent with the cave.

1.3 Level: Horizontal caving with permanently fixed ladders for participants to use with no assistance and can be guided by a person competent with that cave. **1.4** Vertical caving requires a qualified guide because of the level of difficulty and may involve the use of ropes, ladders and/or descending/ascending equipment to climb up, down or traverse vertical drops. Any activity involving ropes to assist participants will need to reference the SOP Risk Assessment for Abseiling. This SOP Risk Assessment cover caves that are used regularly by groups and can be chosen to tailor to the participants experience and physical capability.

Caving is an activity that involves inherent risks. Cave environments may contain areas of little or no natural light, uneven and slippery surfaces, unstable areas, cold water, deep pools, foul air with elevated carbon dioxide levels, sudden and unfenced drops, and other natural hazards. Such as different levels of the confined space which will cause the need for participants to be in constant supervision for safety.

<u>Hazard & Risk</u>	<u>Risk Rating</u>	<u>Risk Control</u>	<u>Amended Risk Rating</u>	<u>Activity leader: to answer each section below 'YES,' if able to fulfil SOPs Risk Assessment, to be acceptable to proceed with the activity.</u>
Child safety at events	19	<ul style="list-style-type: none"> WWCC number provided and checked if staff are over 18yrs old. AdSafe Training completed if staff are over 18yrs old. Code of Conduct completed for staff. Staff are to remain vigilant. 	6	
Dangerous activities	19	<ul style="list-style-type: none"> Activities require guide/s to proceed for safety and control activity with the correct ratio. The guide/s must have previously visited the cave and has become 	9	

Activity Risk Assessment

Caving

		<p>knowledgeable with the inherent dangers.</p> <ul style="list-style-type: none"> Cave levels 1.3 & 1.4 Guides need Cert 3 minimum in ropes for caving because of abseiling or ascending which needs safety rope attached to participant. Guide must be also qualified if participants can't walk into and out without extra support for safety. Maximum Group Ratio 1:10 with a minimum of 4 people. Caving activity will be governed by the ability of the weakest participant/s. The cave's ledger must be filled in fully before entering the cave. Any 'near miss or incident' must be recorded on the relevant forms. At least one leader to have emergency communication & GPS capabilities outside of the cave. At least one person to have the free mobile app on their phone called "Emergency Plus" 		
COVID-19	19	<ul style="list-style-type: none"> All activities are to adhere to government legislation. Have a COVID safe plan if applicable. Have a Participant Registration if applicable. 	5	
Activity info	21	<ul style="list-style-type: none"> All required information to be filled in on page 9 & 10. 	12	

Environmental

<u>Hazard & Risk</u>	<u>Risk Rating</u>	<u>Risk Control</u>	<u>Amended Risk Rating</u>	<u>Continue: can activity leader answer 'YES'?</u>

Activity Risk Assessment

Caving

Fauna & flora	10	<ul style="list-style-type: none"> • Don't intentionally engage with fauna e.g. bats etc. • Don't intentionally damage flora. • If there is a pathway, stay on it. 	5	
Weather <ul style="list-style-type: none"> • Coldness • Rain 	10	<ul style="list-style-type: none"> • Wear clothes to match caving environment conditions. • Everyone to drink water when needed. • Check weather forecast on BOM. • Check water flow conditions at cave activity area for possible inundation. 	3	
Foul air and dust <ul style="list-style-type: none"> • Asthma • Respiratory 	15	<ul style="list-style-type: none"> • Wear protective clothing with gloves because the dust could include bat waste. • Be vigilant if face mask is required to reduce dust intake which is recommended in some caves for all participants. 	3	

Activity Risk Assessment

Caving

<p>Increase concentration CO₂</p> <ul style="list-style-type: none"> • Ill health • Death 	15	<ul style="list-style-type: none"> • Be vigilant for ill health warning symptoms which starts at 3.0% CO₂ and consider activating evacuation procedures and use 'naked flame test'. Symptoms may include panting after exertion, headaches, dizziness, and possible vision disturbance such as speckled stars. Start evacuation ASAP if any participant has symptoms of dizziness or vision impairment. • Be vigilant of CO₂ levels because the same cave through the year can change because of environment changers. • The 'naked flame test' can be undertaken by igniting a match or butane cigarette lighter or carrying a lit candle into suspected foul air. If the flame is extinguished, foul air is present. • Please note, humans can survive in an atmosphere containing only 10% oxygen, so when the flame test just fails, the atmosphere still containing enough oxygen to survive. So do not panic, evacuate immediately. • At 5.0% CO₂ major respiration & severe headache can appear. At 6% could result in unconsciousness and death. 	3	
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Activity Risk Assessment

Caving

Fall from heights <ul style="list-style-type: none"> Death Injury 	17	<ul style="list-style-type: none"> Everyone to stay back 1.5 adult body lengths from vertical edges if not attach to a safety line. No climbing cliffs without safety equipment or procedures in place. 	9	
Bites and stings <ul style="list-style-type: none"> Adverse reactions causing ill health or death. 	17	<ul style="list-style-type: none"> Be vigilant for bats, ants, spiders & throughout the activity. Check participants medical form for any history for adverse reactions and cater for participant needs. Have First Aid Kit on the activity. 	5	
Diseases <ul style="list-style-type: none"> Ill health 	17	<ul style="list-style-type: none"> Possible transmission of diseases from bats, or bacteria in soil within caves. Wear PPE if required. 	5	
Slips and trips <ul style="list-style-type: none"> Injury 	14	<ul style="list-style-type: none"> Watch where you walk for trip hazards including slippery surfaces. Wear hiking boots/shoes with good grip. Everyone must have a torch. 	5	
Slip when climbing <ul style="list-style-type: none"> Injury 		<ul style="list-style-type: none"> Guides demonstrate 'spotting' and 'marking' beforehand. Everyone needs a 'spotter' if they are to climb, for protection of the head and upper body should they fall. 'Marking' helps to guide the hand and foot placement while clambering up or down obstacles 		
Falling rocks <ul style="list-style-type: none"> Crush death Crush injury 	12	<ul style="list-style-type: none"> Be vigilant for lose rocks above when caving. 	5	
Unhygienic practise <ul style="list-style-type: none"> Ill health 	14	<ul style="list-style-type: none"> The environment code for cavers to be uphold for toileting and rubbish. Wash hands before eating. 	3	

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Caving

Human

Responsibility of the Activity Leader(s)	<u>Continue:</u> can activity leader answer 'YES'?
<ul style="list-style-type: none"> • The leader/guide for caving must demonstrate their ability beforehand as being competent with the cave they are planning to have the activity in. • Individual tasks may be delegated to others, but the responsibility remains with the activity leader. • It is the leaders' responsibility to ensure that the level of knowledge, ability, skill, and equipment of each participant is appropriate for the level of difficulty and complexity of the caving activity. • Receive acknowledgement from all participants that he/she (as the activity leader) has the role of leading the group. • Appoint external contacts to notify Police/Park Rangers etc. if the group/s fail to return or be contacted by designated time which has all the caving activity & participants details. • Ensure in a medical emergency that nearest medical & hospital is known by the leader/s. • Ensure the supervision ratio range from 1:4 to 1:10 depending on the participants age, and the cavers capabilities with the environment. • Understand the goals of caving and work within the activity SOPs and Risk Assessment. • Research the cave route and manage foreseeable hazards, incidents, and emergency exit procedures. • Ensure that the group has a qualified First Aider, also have suitable First Aid Kit, that is checked prior to the activity. • As a leader, be vigilant for those that are socially, emotionally, or psychologically unsuited and be ready to support participants who experience claustrophobia. 	

<u>Hazard & Risk</u>	<u>Risk Rating</u>	<u>Risk Control</u>	<u>Amended Risk Rating</u>	<u>Continue:</u> can activity leader answer 'YES'?
Participants abilities <ul style="list-style-type: none"> • Fitness • Skill Injury caused by over physical exertion. Injury cause by lack of experience.	9	<ul style="list-style-type: none"> • Planning stage: all participants need to be advised of the cave overview. • Activity pre-brief of the hazards which is to give clear explanation of the participants expectations. • Confirm beforehand participants experience & capabilities. • Participants have the right to withdraw from activity, ideally at the time of the pre-brief. 	2	

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Participants behaviour <ul style="list-style-type: none"> • Not following instructions • Showing off • Being silly • Not listening • Endangering self or others • Death & injury 	22	Activity pre-brief of the hazards/dangers. <ul style="list-style-type: none"> • Clear explanation of the expectations of all participants. • Anyone not following instructions will be asked to leave, if possible, who will need to be supervised. • Use the Clubs Discipline Policy to address negative behaviour. 	2	
Bullying <ul style="list-style-type: none"> • Emotional trauma 	21	<ul style="list-style-type: none"> • Take any complaints seriously and take immediate action to safeguard the victim. • Stop the activity and staff/leaders to separate the accused bully/ies for counselling. • Use the Clubs Bullying Policy to address a negative behaviour. 	5	
Entanglement with jewellery <ul style="list-style-type: none"> • Injury 	14	<ul style="list-style-type: none"> • All jewellery is to be removed before activity or made safe, to prevent ensnaring the participant. 	5	
Exhaustion <ul style="list-style-type: none"> • Death • Injury 	15	<ul style="list-style-type: none"> • Be alert to the physical and psychological condition of the group. • Maintain constant surveillance/observation of participants, to the best of your ability, and avoid situations beyond their known capabilities. • The leader can appropriately designate responsibility. 	5	

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<p>Negative Self Care</p> <ul style="list-style-type: none"> Death Injury 	21	<ul style="list-style-type: none"> Guide/s ensure equipment is always used correctly. e.g. helmets are fitted correctly. Communicate beforehand to participants minimum requirements for water, food, and suitable clothing for the caving environment. Confirm head count before, during and immediately following the trip. Emphasize that no participant is to wander off from the group. 	5	
<p>Bullying</p> <ul style="list-style-type: none"> Emotional trauma 	21	<ul style="list-style-type: none"> Zero bullying policy to be enforced. Take any complaints seriously and take immediate action to safeguard the victim. Stop the activity and staff/leaders to separate the accused bully/ies for counselling. Use the Clubs Bullying Policy to address an issue. 	5	
<p>Intentional Self harm</p> <ul style="list-style-type: none"> Injury 	15	<ul style="list-style-type: none"> Instructors/guides to remain vigilant to negative mood shift and body language. Participants need to be told at pre-briefing it is challenge by choice to reduce anxiety. Separate the person endangering themselves with personnel from the activity to reduce tension/anxiety within a safe environment. Check on all the people within the activity for their mental wellbeing. Be aware of equipment which intentionally can become dangerous. 	9	

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Caving

Equipment

<u>Hazard & Risk</u>	<u>Risk Rating</u>	<u>Risk Control</u>	<u>Amended Risk Rating</u>	<u>Continue: can activity leader answer 'YES'?</u>
Damaged Equipment <ul style="list-style-type: none"> Injury 	19	<ul style="list-style-type: none"> Check all equipment before trip and damaged/worn gear to be replaced and reported. Take duct tape and a spare torch. 	10	
Inefficient communication, equipment, or failure <ul style="list-style-type: none"> Death Increase injury 		<ul style="list-style-type: none"> Ensure communication procedures in the cave is established within the group and there is support personnel outside of the cave in case of emergency. This may include mobile phone, satellite mobile phone, and UHF radio with spare batteries & EPRIB/PLB's. Have spare back-up navigational devices (compass or GPS), depending on the remoteness and location. 	10	
Unsuitable equipment <ul style="list-style-type: none"> Death Injury 		<ul style="list-style-type: none"> Each participant to adopt an attitude of self-reliance, responsibility and preparedness and only take equipment and PPE deemed necessary. 		



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Extra option: Unique activity hazard which needs to be added to the SOP Risk Assessment

<u>Hazard & Risk</u>	<u>Risk Rating</u>	<u>Risk Control</u>	<u>Amended Risk Rating</u>	<u>Acceptable To Proceed</u>

Person responsible state their name, signature, and date:



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To be filled in by activity leader; copy be given to 'external contact person'.

Group Name:

Nearest Emergency Ward:

Activity date/s:

Helicopter Landing Area:

**Date when church approved
the activity:**

Emergency Exit Point/s:

Number of Participants:

External Contact:

Pathfinders:

Adults:

Phone No:

Activity leader/s:

Phone No:

Activity Location:

Topographic Map/s Name:

Cave name/s:

Activity leader/s print name and sign with date.

Version 1.1 Completed By				Version 1.2 Completed by			
Name	Steven Bilson	Signature:		Name:	Kev Price	Signature:	
Date:	13/08/2022	Activity revised		Date:	27/06/2024	Position:	Youth Administrator
		Date:		People at the activity; list qualification including First Aiders.			
Name:		Signature:		List qualifications:			