Thredbo Mountain Bike Operations

General Information				
Scope/Task:	Risk Assessment. Thredbo MTB Season Operations		**Risk Register Number:** *(Check with Risk Register)*	
Location:	Thredbo		**Date of Origin**	6/11/2015
Area/Dept at which assessment conducted:	KT WHS		**Last Review**	17/11/2026
Person Conducting Assessment:	Brendan May, Training & Compliance	**Area/Dept Manager / Supervisor:**	Stuart Diver, General Manager	
Other people involved / consulted:	**Name:** Kim Delpit	**Position:** Mountain Manager	**Name:** Tim Windshuttle	**Position:** MTB Business Manager
	Name: Daniel Taliana	**Position:** MTB Ops Manager	**Name:** Tom Mckintosh	**Position:** MTB Trails & Terrain Park Manager
	Name: Greg Molloy	**Position:** KT Maintenance Manager	**Name:** David Kuhn	**Position:** Patrol Manager

References

It is a requirement that legal and advisory documentation used for this risk assessment, such as Australian Standards, Codes of Practice, Regulations etc, where possible, are listed.

- AS/NZS ISO31000:2018 Risk Management Principles and Guidelines
- Work Health and Safety Act 2011
- Work Health and Safety Regulation 2025
- KT002 Safety Management System Overview
- EVT WHS Policy
- Thredbo Environmental Sustainability Plan
- Mountain Access Conditions Summer
- KT Operational Risk Assessment
- KT023 Excavation Near Underground Assets Procedure
- International Mountain Bike Association (IMBA) 'Guidelines for a Quality Trail Experience – Mountain Bike Trail Guidelines'
- Thredbo Trail Management Plan
- Thredbo Trail Monitoring and Inspection Plan
- KT MTB Trail Sweep SOP

Thredbo Mountain Bike Operations

Description of task

Thredbo Alpine Resort offers Mountain Biking (MTB) during the summer months. This includes the provision of lifts and trails, lessons and clinics, equipment sale, hire and repair. Thredbo MTB Operations utilises the below trails

Gravity Trails are rated as follows:	Cross Country Trails are rated as follows:	Skills and Jump Parks are rated as follows:
• Easy Rider- MTBA green (beginner flow) • Sidewinder- MTBA green (beginner flow) • Rockpools- MTBA green (beginner flow) • Centrelink- MTBA green (beginner flow) • Woody's- MTBA green (beginner technical) • Grasshopper- MTBA blue (intermediate flow) • Kosciuszko Flow- MTBA blue (intermediate flow) • Pegasus- MTBA blue (intermediate flow) • Ricochet- MTBA blue (intermediate flow) • Revolver- MTBA blue (intermediate flow) • Dream Catcher- MTBA blue (intermediate technical) • Cannonball DH– MTBA black (advanced technical) • Home Run - MTBA blue (intermediate flow) • Slayground – MTBA blue (intermediate flow) • Panorama – MTBA Black (advanced technical) • Bobshred – MTBA blue (intermediate flow) • Paparazzi - MTBA Blue (intermediate technical) • Mild Thing MTBA Green (Beginner) • Flow Link MTBA Blue (High Intermediate) • Cruise Control MTBA Blue (High Intermediate) • The Gauntlet MTBA Black (Advanced)	• Pipeline Path- MTBA green (beginner flow) • Golf Course Loop- MTBA green (beginner flow)	• Village Green Pump Track- MTBA green • Flip Skills Park- MTBA blue • Boost Mobile Jumps Park- MTBA blue • Valley Terminal Jumps Park- MTBA black

All courses are purpose built and are tailored for different rider ability and technical complexity. The lifts utilised to provide trail access will be the Kosciuszko Express, Snowgums, Cruiser and Gunbarrel chairlifts and the Merritts Gondola. The 2025-26 MTB season is a ticketed event, the estimated daily capacity of the season is 1000 participants. This document is produced by Kosciuszko Thredbo Pty Ltd to specifically review MTB operations. It addresses only Work Health & Safety and Public Safety risk related to the MTB operations.

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RISK ASSESSMENT						
Hazard Identification				Risk Control		
No	Task/Activity (What is that we are doing)	Hazards (What has potential to cause injury of damage)	Associated Risks (Type of injury or damage from Hazard)	Risk Controls (If elimination not possible, apply the hierarchy of risk controls – See Table 2)	Residual Risk Additional Controls (Use Risk Matrix – See Table 1)	Person Responsible
1	Trail Maintenance	Driving on Mountain Access roads	Collision resulting in Personal Injury and/or Property Damage	Mountain Access controlled as per Mountain Access conditions Summer	Medium 6	Mountain Manager Retail & Rental Manager MTB Trails & Terrain Park Manager
2	Trail Maintenance	Use of Machinery such as excavators	Personal injury Property damage	Only competent staff, suitably trained and qualified to operate machinery Machinery to be maintained and operated in accordance with manufacturers specifications Permit To Dig to be obtained prior to excavation works	Low 5	Mountain Manager Retail & Rental Manager MTB Trails & Terrain Park Manager

3	Trail Maintenance	Use of hand tools	Impact or other personal injury	Inspect all tools prior to use. Appropriate tools used for each task. Competent/trained people using tools. Appropriate PPE worn.	Low 2	MTB Trails & Terrain Park Manager All Staff
4	Trail Maintenance	Use of power tools	Impact or other personal injury Cuts and abrasions Eye injury Hearing injury Electric shock	Inspect all tools prior to use. Appropriate tools used for each task. Appropriately sized and rated bits, blades and discs for the tool used and medium that is being worked on Battery operated tools used where possible All 240v tools and extension leads to be tagged in date. Competent/trained people using tools. Appropriate PPE worn.	Medium 8	MTB Trails & Terrain Park Manager All Staff

5	Trail Maintenance	Outdoor environment.	Sun, Wind, Heat and Cold related injury.	Avoid working in extreme weather. Ensure adequate water is on hand and available to staff. Ensure adequate breaks are taken. Wear appropriate clothing and PPE.	Low-4	MTB Trails & Terrain Park Manager All Staff
6	Trail Maintenance	Manual Handling of goods	Manual handling or other personal injury	Assess the lift. Use appropriate manual handling techniques and lifting aids. Break down the load where possible. Provide adequate rotation of tasks and breaks to reduce repetition Use multiple people for heavy/awkward items.	Low-2	All Staff

7	Trail Maintenance	Weather events	Erosion Silting/sedimentation of waterways	Trails constructed in a sustainable manner. Trails inspected daily. Ongoing maintenance throughout the season Weather monitoring and alerts in place to ensure addition measures are in place for significant rain events Avoid working during rain events. Minimise disturbance of ground. Site environmental management measures to be in place. Spoil placed in designated areas only	Medium 7	Slopes Manager MTB Trails & Terrain Park Manager
8	Trail Maintenance	Dust generation activities	Respiratory and visual irritation and injury Environmental harm	Use of dust suppression, such as water spraying where required Use of enclosed cabs on plant where possible. Staff to move upwind of activities where dust is generated Use of appropriate PPE	Low-4	Site Supervisor All Staff

9	Trail Maintenance	Noise generation machinery and activities	Hearing damage Environmental harm	Noise Suppression/Silenced equipment to be used where possible Use of noise generating equipment to be minimised Applicable restrictions of hours of noise generation to be adhered to Use of appropriate PPE	Low-4	Site Supervisor All Staff
10	Trail Maintenance	Fume generation	Respiratory injury, illness, irritation Other chemical inhalation injury Environmental damage	Minimal staff to be on site/exposed to any fume generation activity such as refuelling. Staff to stay upwind of vehicle operation and minimise any exposure to exhaust fumes	Low-4	All Staff

11	Trail Maintenance	Faulty Equipment	Personal Injury Fluid spill Property damage	Daily start up checks / procedure done on machinery prior to use each day All plant to be regularly serviced as per manufacturers schedule Site environmental management measures to be in place. Spill kits to be on hand Any damage to be assessed immediately by qualified staff	Low-3	Operator
12	Chair Lift Operations	Use of Bike racks on chairs	Personal Injury Property Damage	Bike Racks to be installed so as to provide clearance from obstacles Chair to be run and monitored at a speed that allows safe loading and unloading of bikes	Medium 8	Lifts Manager All Lifts Staff

13	Riding Trails	Trail Features	Crash resulting in Personal Injury and/or Property Damage	Trails constructed by suitably qualified staff. Trails graded and signposted by suitably qualified staff Trails regularly inspected by staff to ensure that trails are clear and in good condition PPE required to be worn by Staff and guests Staff to ride well within their personal limits	Very High 20	MTB Operations Manager MTB Trails & Terrain Park Manager All MTB Staff All Lift Staff
14	Mountain Bike Operations	Use of Gravity Trails	Injury to person, damage to property in any single instance	Trail design & Maintenance, daily inspections, minimum bike and equipment requirements	Medium 6	Mountain Manager Mountain Bike Operations Manager
15	Riding Trails	Vehicles and other Mountain Users	Collision resulting in Personal Injury and/or Property Damage	Mountain Access controlled as per Mountain Access conditions Summer 2026-27	Medium 6	Mountain Manager

16	Riding Trails	Trail Use	Litigation, Workers Compensation costs or Brand damage as a result of injury or property damage	Trails built and certified to standards. Trails Graded and Sign posted Staff trained and competent for level of trail Guests in lessons assessed and graded for level of trail Waivers, Terms and Conditions and Insurance current and adequate to cover likely costs arising from litigation Trained Patrol Staff on duty at all times Trails are open for riding to render assistance and minimise outcomes of accidents as quickly as possible KT Provides a staffed medical centre during high visitation periods Working Relationships maintained with local NSW Ambulance and Air Ambulance	Medium 6	MTB Trails & Terrain Park Manager Retail & Rental Manager MTB Operations Manager MTB Business Manager MTB Instructors Guest Services Manager General Manager Director – Strategy & Risk

17	Riding Trails	Outdoor environment.	Sun, Wind, Heat and Cold related injury.	Avoid working in extreme weather. Ensure adequate water is on hand and available to staff. Ensure adequate breaks are taken. Wear appropriate clothing and PPE.	Low-4	All Staff
18	Retail and Rental Operations	Manual Handling	Personal Injury	All lifts to be assessed Where appropriate lifting aids to be used Split the load where possible Multiple people to be used for heavy loads Task specific training to be given for lifting mountain bikes onto top racks Correct techniques to be used	Medium 8	Retail & Rentals Manager MTB Operations Manger MTB Business Manager All Retail/Rental Staff

19	Retail and Rental Operations	Damaged Products such as bikes or helmets sold/hired	Personal Injury Brand Damage Litigation Expenses	All products to meet applicable safety standards All products to be in good order and stored appropriately All hire equipment to be serviced and checked for serviceability prior to re hire	Medium 6	MTB Operations Manger MTB Business Manager All Retail/Rental Staff All Workshop Staff
20	Retail and Rental Operations	Use of hand tools/box cutters etc	Impact/cut or other personal injury	Inspect all tools prior to use. Appropriate tools used for each task. Competent/trained people using tools. Appropriate PPE worn.	Low 2	MTB Operations Manger MTB Business Manager All Retail/Rental Staff
21	Provision of Lessons and Clinics	Inappropriate Guest Clothing/PPE/Equipment	Personal Injury	Instructor to assess the guest equipment/clothing/PPE to ensure that it meets at least a minimal safe standard	Medium 9	All MTB Instructors

22	Provision of Lessons and Clinics	Guest Skill Level insufficient for lesson	Personal Injury Negative experience for other participants	Lesson Levels clearly explained in booking process Instructor to assess each participant at commencement of lesson	Medium 9	Guest Services Manager MTB Business Manager MTB Operations Manager All MT Instructors
23	Workshop Operations	Use of hand tools	Impact or other personal injury	Inspect all tools prior to use. Appropriate tools used for each task. Competent/trained people using tools. Appropriate PPE worn.	Low 2	All Workshop Staff

24	Workshop Operations	Use of power tools	Impact or other personal injury Cuts and abrasions Eye injury Hearing injury Electric shock	Inspect all tools prior to use. Appropriate tools used for each task. Appropriately sized and rated bits, blades and discs for the tool used and medium that is being worked on Battery operated tools used where possible All 240v tools and extension leads to be tagged in date. Competent/trained people using tools. Appropriate PPE worn.	Medium 8	All Workshop Staff

25	Workshop Operations	Use of pneumatic tools	Impact or other personal injury Cuts and abrasions Eye injury Hearing injury Electric shock	Inspect all tools prior to use. Appropriate tools used for each task. Appropriately sized and rated bits, blades and discs for the tool used and medium that is being worked on Adequate air pressure supply available to maintain constant correct operating pressure for tools Competent/trained people using tools. Appropriate PPE worn.	Medium-8	All Workshop Staff

26	Workshop Operations	Chemical Handling – Oils & other fluids	Exposure resulting in personal injury Property damage Environmental Damage	All chemicals to be used as per the manufacturer's intention All conditions of the MSDS in relation to handling and storage to be followed All chemicals bought on site to be registered in the MSDS register Only minimal quantities that still ensure availability for use to be held at any time	Low 3	All Workshop Staff
27	Bike Washing	Contaminated water	Contaminated water entering waterways	Bike washing facilities in approved bunded area only where water is unable to affect waterways.	Low 3	MTB Operations Manager
28	Installation of Displays	Display location, size and appearance	Detract from local amenity	All installations to be approved by Brand and Marketing	Low 2	MTB Business Manager
29	Set Up of displays and promotional material	Packaging, and promotional material	Pollution of land/river	Current Waste Management Practices	Low 4	Environmental Services Manager

30	Use of paints, glues, cleaners and other chemicals in operations	Hazardous chemicals	Exposure/Personal Injury	All chemicals to be used as per the manufacturer's intention All conditions of the MSDS in relation to handling and storage to be followed All chemicals bought on site to be registered in the MSDS register Only minimal quantities that still ensure availability for use to be held at any time	Low 5	MTB Operations Manager

Table 2: Risk Control

The most effective strategy for risk control is:

<u>Elimination of risk</u>
This means to completely remove the risk so no control/s need to be implemented.

When elimination of risk is not reasonably practicable, the hierarchy of controls should be consulted to implement the next most effective strategy reasonably practicable. A combination of the following controls may be required to be taken to minimise the risk to the lowest level reasonably practicable if no single control is sufficient for that purpose.

Elimination	This means to completely remove the risk so no control/s need to be implemented *When elimination is not reasonably practicable, the hierarchy of controls should be consulted to implement the next effective strategy. A combination of the following may be required to be taken to minimise the risk.*	Highest	Most
Substitution	Replacing a hazardous substance or process with a less hazardous one, e.g. substituting a solvent based chemical with a water based one	Level of health and safety protection	Reliability of controls
Isolation	Isolating the hazard from the person at risk, e.g. isolating the power before working on electrical circuitry, enclosures for noisy machinery		
Engineering	Redesign a process or piece of equipment to make it less hazardous , e.g. installing an exhaust ventilation system to extract dangerous fumes or dust		
Administration	Minimising the risk by administrative or procedural means e.g. by adopting safe work practices or providing appropriate training, instruction or information		
PPE	Have people wear personal protective equipment and clothing while near a hazard, e.g. gloves, glasses. Earmuffs, aprons, safety footwear, dust masks	Lowest	Least

		CONSEQUENCE RATING				
		Insignificant (1) • Problem easily handled by normal processes • first aid treatment required	**Minor (2)** • Some disruption possible • Minor injuries or illness requiring medical treatment	**Moderate (3)** • Significant time and resources required • serious bodily injury or illness	**Major (4)** • Operations severely damaged • single fatality or permanent disability	**Catastrophic (5)** • Business survival is at risk • multiple fatalities and / or significant impact to individuals
LIKELIHOOD	**Almost Certain (E)** >90% Chance	**11** **High**	**16** **High**	**20** **Very High**	**23** **Very High**	**25** **Very High**
	Likely (D) Between 50% and 90% Chance	**7** **Medium**	**12** **High**	**17** **High**	**21** **Very High**	**24** **Very High**
	Moderate (C) Between 10% and 50% Chance	**4** **Low**	**8** **Medium**	**13** **High**	**18** **Very High**	**22** **Very High**
	Unlikely (B) Between 3% and 10% Chance	**2** **Low**	**5** **Low**	**9** **Medium**	**14** **High**	**19** **Very High**
	Rare (A) <3% Chance	**1** **Low**	**3** **Low**	**6** **Medium**	**10** **High**	**15** **High**