

Extreme Adventure Ltd – Risk Assessment

Activity- Mobile Zip Line

What are the Hazards which cause:	Who/what may be harmed? (give specific of people e.g. staff, visitors, users or contractors)	What is done now? (i.e. provision of training, corporate and local standards, codes of safe working practice, supervision, monitoring systems)	What is the rate of Risk? (Rate risk as Low, Medium or High)	What action needs to be taken? (the needs to be considered in that the risks are identified and effectively controlled)	By when? (what is the target date for completion)
Fall from height whilst building Zip Line	Employees	Use of ropes. Staff are always clipped to the structure when working outside the walkway so even in the event of fall they only drop 10cms	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Employee trained in safe climbing practices and company procedures	Ongoing
Person slips and falls while ascending/descending stairway.	Participants/Employees	Non-slip stair treads used to prevent slipping. ASTM standard guardrail and handrail provided full length of stairway. Gate at bottom to control the number of participants on stairway / platform at a time. Landing provided at stair midway to prevent falling full distance of stairway.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Employees need to control the number of Participants allowed onto equipment and instruct those climbing steps to take their time and do not run.	Ongoing
Improper Harness fit	Participants/Employees	Harnesses are a universal fit design from a leading manufacturer. Harness fit is supervised by ride operator and checked by second operator when attaching to tether on zip-line.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Staff are trained on proper harness fitment.	Ongoing

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Dated 03/11/2016

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Injury from structure	Participants/Instructors	Use of high quality materials and construction of parts. All sharp edges and burrs have been removed and rounded edges given to equipment.	Severity of Risk (S)- 2 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 2 LOW	Every participant is given a safety briefing on the use of the Zip Line and that any actions considered dangerous by the Instructors will result in that person being removed from the Zip Line	Ongoing
Tether or carabineer failure	Participants/Instructors	All components are sourced from reputable manufacturers and stamped or marked with certified load ratings far exceeding the service loads of the ride.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	All components are inspected daily by staff.	Ongoing
Suspension injury from loose jewellery or other loose item	Participants/Instructors	All participants to remove all jewellery and loose clothing and empty pockets	Severity of Risk (S)- 2 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 2 LOW	Training and Supervision	Ongoing
Participant 'freezing' on the Launch platform	Participants	Equipment has an Emergency Take Down Process	Severity of Risk (S)- 1 Likelihood of Risk (L)- 3 Overall Risk (S x L)= 3 LOW	All staff trained in the use and company procedure for an Emergency Take Down of a user	Ongoing
Trolley failure	Participants	Trolley used from leading manufacturer in the zip-line industry. Stamped with load rating far exceeding service loads of the ride. Back Up carabineer clipped around cable to catch rider in event of trolley failure.	Severity of Risk (S)- 1 Likelihood of Risk (L)- 3 Overall Risk (S x L)= 3 LOW	Inspected daily by staff. All staff trained with what is considered to be safe and unsafe	Ongoing

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Participant is not properly attached to trolley	Participants/Instructors	Staff are trained on proper attachment method of harness to trolley. Participants are instructed to hang their full weight from the trolley prior to the operator rotating the "tub" into the exit position	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Staff trained in safe procedure	Ongoing
Participants not suited the course i.e. being too heavy or too small to attempt the activity. This may result in a hazard to themselves or other users	Participants	Clear signage showing the allowable user minimum heights accompanied and unaccompanied are displayed. Signage also dictates the maximum weight of a user.	Severity of Risk (S)- 1 Likelihood of Risk (L)- 2 Overall Risk (S x L)= 2 LOW	Clear signage and training staff in the clear procedures and policies of the company to maintain a safe operation	Ongoing
Participants (younger children) fiddling with the screw gate on the Carabineer meaning the safety device is not safe	Participants	All small Harnesses have Carabineer's with self-locking gates on.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Ensure that all Children's harnesses have the self-locking carabineers on.	Ongoing
Participant colliding with another person or object while zipping.	Participants	The Zip Landing zone is barricaded off with fencing or rope. Exit area of zip line is attended by a ride operator that directs participants to exit the area in a safe direction so as not to cause a collision with other riders	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Instructors need to be vigilant at all times	Ongoing

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Participant falling due to zip line becoming slack.	Participants/Instructors	Weight of Zip-line trailer and anchor vehicle calculated to handle max. Dynamic loads of zip-lines. Staff trained on proper chocking and blocking of trailer and anchor vehicle to prevent any rolling or sliding.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Staff to periodically inspect static tension of line per operations manual.	Ongoing
Brake line failure	Participants/staff	Brake line rope sourced from leading manufacturer of climbing rope. Load rating of rope far exceeds measured loads during operation. Independent pull tests of rope done to verify manufacturer's stated rating. Inflatable barrier positioned at end of braking zone as redundant stopping device.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Daily inspection by staff. Replacement of rope at intervals per operations manual.	Ongoing
Loss of oil/air pressure in hydraulic braking system	Participants	Braking system is designed with flow control in cylinders so that it still functions even with complete loss of oil and air pressure at the reservoir. Safety stop built into track of braking system to prevent trolley from returning to platform in case of hydraulic failure. Part of braking energy is absorbed by steel springs, not dependent on hydraulic system	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Daily inspection by staff per OM.	Ongoing

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Employee getting hit by the trolley as it returns back to the top after a rider is released	Employees	The Auto-retract has ascending brakes that slows the trolley as it enters the loading zone. Staff are trained to stand in the middle of the loading zone at all times and to control the rate at which the trolley returns.	Severity of Risk (S)- 3 Likelihood of Risk (L)- 1 Overall Risk (S x L)= 3 LOW	Instructors need to be vigilant at all times	Ongoing

Calculation of Risk Evaluation

Severity (S)

Severity of Risk is judged by evaluating the effects of the hazard if the risk occurs.

This is evaluated as Minor = 1, Major = 2, Serious = 3

Risk Likelihood (L)

The likelihood of the harm occurring is evaluated on the following basis:

Unlikely =1, Possible = 2, Likely = 3

Overall Risk

Overall Risk is calculated by multiplying the figure for Severity (S) x Likelihood (L). The figure calculated is related to the rate of risk as follows

1 to 3 Low, 4 to 6 Medium, 7 to 9 High

Circulation	Management, Staff & Show or Event Organisers
Assessor	Andrew Caldwell
Date Assessed	3 rd November 2016
Review Date	Every 12 months next review 3/11/2017