

Valley Adventure Centre – Zip Wire Risk Assessment

Risk Assessment for: Zip Wire	Assessor(s): Alex Dodds	Date: 06/01/2024
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Overview of activity/ location/ equipment/ conditions assessed:	The Zip Wire is a high ropes activity where participants move down a 147 metre zip cable at up to 35km per hour. Participants are attached to the zip wire cable by a zip trolley, steel lanyard and triple action steel karabiner. A safety line is also attached to the zip wire via a triple action steel karabiner and rested on top of the zip trolley and attached to the participant via a triple action karabiner. The participants come to a running stop at the bottom or by dragging their feet and are then removed from the zip wire by an instructor.
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Generic or specific assessment:		Specific		
Serial	Hazard(s) identified	Persons affected	Existing Controls	Additional Controls
1	Induction/ Safety Brief	All staff and public	All staff and public must attend a safety brief prior to using the Zip Wire.	A Safety Brief is attached
2	Slips, trips, falls and personal injury	All staff and public	The top of the Tower and the landing area are inspected prior to use for damage. Stringent safety checks are made monthly. At the time of booking participants are informed about wearing suitable clothing and footwear for the session.	
3	Young persons and vulnerable adults	All staff and public	Ensure that young persons and vulnerable adults receive an induction talk and safety brief. It is vitally important that they not only listen to, but also fully understand, the safety issues and rules of the activity. Ensure that young persons and vulnerable adults do not enter sessions where there are older or more experienced participants.	Young persons and vulnerable adults will tend to forget the safety and activity rules when they are excited. It is essential to repeat the rules at frequent intervals.

			<p>No person will be allowed to do the activity unless they can demonstrate that they have fully understood the safety rules for the activity.</p> <p>Under 16's require a 'Consent Form' signed by a parent or guardian or have a parent/guardian in attendance.</p> <p>The minimum age for this activity is 7 years old. Occasionally 6 year olds may be permitted to use the zip-line (i.e. same school year 7th birthday parties) but they must be at least 120cm in height.</p> <p>All participants must read an Activity Disclaimer form, and the lead person must sign for their group.</p>	
4	Injury due to problems with health and/ or fitness	All staff and public	<p>This is a mentally challenging activity but is otherwise passive in use. 3 flights of stairs must be negotiated in the Tower and there is a running stop at the bottom of the zip wire at the landing incline.</p> <p>All users should be fit enough to undertake the activity and operate within their personal limits.</p> <p>Participants are advised to seek professional assistance if in doubt about the fitness level required for the activity.</p> <p>Participants with current injuries or undergoing medical treatment are discouraged from participating.</p>	

5	First aid and medical requirements	All staff and public	<p>Supervising staff must have a valid first aid award, ERCA award or have received specific training as an Appointed Person.</p> <p>First aid kits are available in the Tower and the Cabin.</p> <p>An accident reporting record is kept by the Operations manager.</p> <p>Participants with additional medical requirements such as asthma, inhalers, diabetes etc. should make themselves known to supervising staff so that appropriate measures may be taken to ensure the availability of personal medications if required.</p>	<p>It may be impractical for persons to carry personal medications during activity, in which case: All personal medications should be immediately available at a central location.</p> <p>The activity may be stopped if personal medications are required.</p>
6	Alcohol and drug misuse	All staff and public	<p>All staff and public are particularly at risk when exposed to alcohol and/ or drug misuse.</p> <p>Members of the public who appear to be under the influence of alcohol and / or drugs will be asked to leave the session, possibly the site.</p>	<p>This is included in the safety brief. ALCOHOL, DRUG MISUSE AND OUTDOOR ACTIVITIES DO NOT MIX.</p>
7	Fire and Emergency	All staff and public	<p>The site is 'No Smoking'.</p> <p>Naked flames are not allowed on-site unless as part of the 'Bushcraft' sessions at a designated fire pit.</p> <p>Staff are inducted and trained to respond in the event of a fire.</p> <p>Contact the emergency services by calling 999 or 112 from the cabin or by mobile</p>	<p>In the event of a Fire or Emergency all users will be escorted by an instructor to the Emergency Assembly Area which is located next to the water pumping station at the main gate entrance to Creepy Valley.</p>

			phone. There is mobile reception for most networks on-site.	
8	Supervision, assistance and evacuation or lowers of participants from the Zip Wire	All staff and public	<p>Every session has two Instructors (An Instructor at the top and an Assistant Instructor, as a minimum, at the bottom).</p> <p>Advanced Instructors have been trained and assessed to evacuate participants and casualties from the top (Tower Rescuer) and bottom (Bottom Rescuer) of the Zip Wire including unconscious casualties.</p> <p>Assistant Instructors may be trained to perform bottom of zip rescues which normally only require a rope to be thrown to the participant.</p> <p>The Zip 'Rescue Bags' containing the correct evacuation equipment for rescues and lowers from height are located in the AT Lanyard cupboard in the Tower.</p> <p>Zip Rescue Bags should be taken to the top of the Tower in preparation for the session.</p> <p>Participants are under supervision at all times by a minimum of one Instructor in the Tower and one Assistant Instructor at the landing area on the ground.</p> <p>They can provide vocal support and instructions to participants as well as assist, help or physically intervene where necessary.</p>	<p>Rescuers can access the Zip Wire from the top or bottom as necessary.</p> <p><i>*See Zip-wire Rescue Procedures in the Zip Wire Operating Procedures</i></p>
9	Injury when incorrectly attached to the Zip Wire	All staff and public	The instructor will check the function and operation of the 'Zip Trolleys', lanyards, safety lines, and karabiners prior to use.	A Rescue Bag is located at the top of the Tower and includes rescue items to allow the instructor to go down the zip wire, arrange a safe

		<p>All participants wait at the top of the Tower behind a safety chain, which is operated by the instructor.</p> <p>The participant is first attached to a safety lanyard, brought onto the platform and briefed about the process of leaving the tower and stopping at the landing area.</p> <p>Participants are attached by a triple safe action karabiner to a front attachment point depending on harness type.</p> <p>The karabiner from the harness is connected to a steel lanyard and then the zip trolley, which is secured to the zip wire.</p> <p>A safety line is also attached to the zip wire via a triple action karabiner and rested on top of the zip trolley.</p> <p>The safety line is attached to the participant via a triple action karabiner into the karabiner on their harness.</p> <p>The instructor checks and re-adjusts harnesses as required.</p> <p>The instructor controls the participants leaving the platform to eliminate the risk of jumping rather than stepping and making sure the zip trolley cannot jump or spin around on the wire by holding it in place until the participant leaves the tower.</p> <p>New steps/platform have been put in place to eliminate jumping from the Tower.</p>	<p>attachment point and lower the participant to the ground.</p> <p>The Bottom Rescuer has a throw-line to rescue participants who do not make the landing area and end up over the pond as well as a system that allows the Rescuer to move down the wire to retrieve a stranded participant if they cannot throw a line.</p> <p>The additional safety measures apply: An Advanced Instructor (Rescuer) is the only person that can rescue from the top of the zip wire. An Instructor is trained to rescue from the bottom of the zip wire only.</p> <p><i>*See attached Zip-line Rescue Procedures</i></p>
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			Participants walk down the steps, which creates a tight lanyard and eliminates the risk of the trolley spinning on the wire due to jumping from the Tower.	
10	Staff and Public entering the activity area during a session	All staff and public	<p>Ensure any gates are closed.</p> <p>Accompanying adults or children entering the activity area to take photos or offer encouragement are asked to wear a helmet at all times and are not allowed into the Tower.</p> <p>Helmet for the Assistant is required, but are not required at the bottom of the zip wire for public or accompanying adults.</p> <p>Public are politely requested not to stand directly under the bottom of the zip line when taking photographs or watching participants.</p>	
11	Injury due to ground and/ or weather conditions	All staff and public	<p>All staff and public are to wear suitable and supportive footwear for use during outdoor activities.</p> <p>The Zip Wire is inspected prior to the activity.</p> <p>The activity may go ahead in most conditions. Rain and high winds above Force 7 in a south westerly direction can stop the activity.</p> <p>Lightning storms and F8 winds from any direction will stop ALL activities.</p> <p>Participants are made aware of the implications when conditions are icy, windy or wet as they may move faster or slower on the zip line as a result.</p>	<p>A dynamic risk assessment is made before and during sessions. Participants are briefed on weather conditions as required. The wind speed and direction is taken from the Airport Tower Jersey Met website but the local prevailing wind and wind speed can vary due to being in a valley.</p> <p>Activity will be stopped if necessary.</p> <p>Participants are allowed to re-schedule activity if the forecast is for very inclement weather or high winds.</p>

			<p>If the line is wet or icy or has a strong tail wind, the participant can travel too fast where as a head wind and hot weather (sagging cable) can slow the speed right down meaning children do not reach the landing area and require a throw-line rescue or the instructor to catch them at the bottom of the landing area and pull them to a stop position.</p>	
12	Injury from inadequate personal clothing and/ or footwear	All staff and public	<p>Participants are advised to remove rings and jewellery.</p> <p>Players are advised to wear sturdy, close-toed footwear.</p> <p>Hair tied back and no objects in pockets.</p>	
13	Injury from metal fatigue and activity equipment	All staff and public	<p>The Zip Wire and associated equipment is inspected and maintained.</p> <p>Individual items are to be identifiable and in a serviceable condition, pre use check for damage.</p> <p>The Zip Wire cable is tested for 'metal fatigue in marine environments' by a licenced third party inspecting body.</p>	
14	Issue of personal PPE equipment	All staff and public	<p>Ensure all PPE equipment is clean, fits properly and conforms to safety regulations.</p> <p>NEVER issue any worn or defective equipment.</p> <p>Stress the importance of 'looking after equipment'.</p> <p>Size and adjust harnesses and helmets to correct fit.</p>	

			<p>Readjust as necessary during activity especially after weighting the harness.</p> <p>All zip wire trolleys, lanyards and safety lines are inspected prior to use and before and after attaching participants to the zip wire cable.</p> <p>Harnesses are checked and adjusted as necessary prior to using the zip wire.</p>	
15	Injury to head and body	All staff and public	<p>The helmet will protect participants in the event of a slip or fall and will also protect from 'in activity bumps'.</p> <p>The steel lanyards that connect the user to the zip wire are in 2 different lengths, which allow the participant to leave the tower without complications and arrive at the landing area to allow a running stop.</p>	<p>The lanyards are:</p> <p>50cm (short) for participants over 6ft tall.</p> <p>75 cm (Medium) for participants from 4ft 6 inches to 6ft</p>
16	Injury at the landing area	All staff and public	<p>It is essential to brief participants at the top of the tower that they should try and perform a running stop at the landing area.</p> <p>The instructor at the bottom of the zip wire should also shout to the participant to try to run to a stop or if they are coming in backwards to put their feet down so that they can drag their feet to stop (drag stop).</p> <p>The instructor can assist participants by catching or controlling them as they land but should allow participants to land unaided where possible.</p>	<p>The instructor may have to shout to tall or heavy participants to lift their feet as they come into the landing area so that they do not stop abruptly or stop too close to the end of the landing area.</p> <p>A spring absorber is placed at the end of the zip-line to safely stop any participant that overruns or has difficulty stopping at the landing area.</p>
17	Injury through damaged or faulty equipment	All staff and public	<p>Helmets and harnesses are inspected and fitted by instructors. Damaged or faulty equipment is withdrawn for further inspection by the Centre manager</p>	<p>The Centre manager inspects and repairs or removes items from service.</p>

18	Effect on equipment due to poor storage conditions	All staff and public	PPE equipment is to be stored in a cool dry environment.	
19	Misuse of equipment	All staff and public	PPE equipment is to be stored correctly and not used other than on authorised training or sessions.	

Date of review:	Serial amended:	Reviewed by:	Date of review:	Serial amended:	Reviewed by:
Aug 12	N/A	Wilkes	Jan 2023	Review. Straps change.	Girdwood
Oct 12	Serial 16	Wilkes			
Apr 13	2, 3, 8, 9, 11, 16	Wilkes			
Jun 13	Assessor(s)	Corbett			
Oct 13	Overview, 1,4,9,11	Corbett			
Jun 14	Overview, 3, 7, 9, 12, 14	Corbett			
Aug 15	3, 4, 5, 10, 15	Corbett			
May 16	General Review	Robinson			
Sep 17	16,17	Wade			
Feb 18	General Review	Wade			

April 18	3, 17	Colin			
Feb 19	General Review	Colin			
Jan 2020	General Review	Colin			
April 2021	General Review	Girdwood			
Jan 2022	Review	Girdwood			