



Reviewed by Operations Team and Health and Safety Manager – February 2019

Next review – April 2019

Assessing risks is simple in principle. It involves identifying hazards or examining what in a particular situation could cause harm or damage and then assessing the likelihood that harm will actually be experienced by a specified population and what the consequences would be (i.e. the risk). The overall objective is to obtain a view on how to manage the risk or to compare the risk with other risks. At a conceptual level, it has proved useful to make a distinction between an assessment of the risks (the evaluation of the likelihood of harm and its consequences for populations or individuals as described above) and risk control (the prioritisation of risks and the introduction of measures that might be put in place to reduce, if not prevent, the harm from occurring). This stems from the belief that an assessment of risks by and large can be scientific and objective but risk control less so because it integrates the results of an assessment of risks with other critical inputs. (www.hse.gov.uk/risk)

Step 1. Identify the Hazards.

Step 2. Identify “Who may be harmed?”	Course User	People who are taking part in the High Wire Activity Course
	Employees	All Adventure Forest Ltd Staff
	Public	The general public who are not actually taking part in the course (spectators or forest users).
	Contractors	People working for a company or individual contracted by Go Ape to work on or around the course, etc.

Step 3. Evaluate the Risk.

LIKELIHOOD

Very low	Definitely will not happen
Low	Unlikely to happen
Medium	Moderate chance of accident happening
High	Quite likely to happen
Very high	Likelihood will happen

CONSEQUENCE

Very low	Injury very insignificant i.e. splinters
Low	Injury fairly minor i.e. minor cut, grazes, bruising
Medium	Injury would stop casualty continuing with task.
High	Serious injury requiring medical assistance i.e., fractures,
Very high	Very serious injury or possible fatality

Step 4. Existing Control Measures ². These are the measure we have put in place to keep the risk to an acceptable level. The Residual Risk (RR) is the level of risk that remains after putting all the control measures into practice.

RESIDUAL RISK

Very low	Minimal risk, control measure more than necessary
Low	Control measures satisfactory
Medium	Control measures adequate
High	Control measure requires constant supervision. Re-assess situation
Very high	Control measures inadequate. Stop activity

Step 5. The Review Process. Go Ape risk assessments will be reviewed when it is suspected that the assessment is no longer valid or there has been a significant change. In addition they will be thoroughly reviewed annually.



Go Ape risk assessments are written in compliance with the Management of Health and Safety at Work Regulations and in accordance with HSE's 5 Steps to Risk Assessment. The assessments are reviewed when it is suspected that the assessments are no longer valid or there has been a significant change. They are also reviewed annually. Go Ape recognises that risk assessments are fundamental in ensuring a safely run Adventure Course. By continuous and dynamic assessment of risk by all Go Ape staff, adhering to the Go Ape operational and training systems¹, risks are reduced to a reasonable level. To carry out daily risk management all staff must be able to fully understand the Risk Assessment procedure as detailed above.

This Risk Assessment is produced in accordance with the Chartered Institute of Environmental Health "Risk Assessment Principles and Practice" programme. This risk assessment looks at the risks associated with the Go Ape ropes courses. The assessment refers to the Go Ape operational and training systems¹

References:

HSE Information Sheet Entertainment Sheet No 14

HSE 5 Steps to Risk assessment INDG 163

HSE A Guide to Risk Assessment requirements INDG 218

1 – Segway Helmet Research. Matthew Williams Mar 2010

2 – Safety Rules and Advice

3 – Safety Brief

This Risk Assessment has been written with reference to the Segway Inc Getting Started Manual and Segway Inc Reference Manual.



SER	HAZARD	LHD	CON	WHO MIGHT BE HARMED	EXISTING CONTROL MEASURES	FURTHER CONTROL MEASURES:	RR
01	Injury through Manual Handling of Segways	Med	Med	Staff	<p>Follow manual handling training given during training.</p> <p>Segway will only be lifted by minimum of two people.</p> <p>Avoid or minimise lifting or moving Segways by adapting site operations, such as ramps into containers.</p> <p>Inactive Segway may be wheeled one at a time.</p>		Low
02	<p>Segway fails to function as expected.</p> <p>Segway will not function correctly if:</p> <ul style="list-style-type: none"> •The rider is too light or too heavy. •The wheels lose traction with the ground. •Too much power is requested from the Segway or it is ridden with insufficient power in the battery. •The Segway is not correctly maintained. 	Low	Med	Customers	<p>Only people between 7 and 19.5 stone may ride the Segway. Minimum age of 10 years, due to learning ability and maturity.</p> <p>Instructors are trained on how to ride the Segway in accordance with manufacturers instructions, which have been included in the Forest Segway Operational policies , Training package, the Safety Rules and Advice and the Safety Brief.</p> <p>A verbal Disclaimer, Safety Rules and a Safety Brief are provided to customers in accordance with the above.</p> <p>The Segway will give a warning – audible and through vibration – if the rider is riding in an inappropriate manner. All riders are trained to recognise these warnings and how to react.</p> <p>Segway will not be ridden where is is judged that surface conditions could cause the Segway wheels to lose traction.</p>		Low



					<p>The Segway will be rotated on charge throughout the day to ensure all customer units have sufficient power for the session.</p> <p>The Segway will initially be ridden in training mode until such a time that an instructor deems the rider competent.</p> <p>Weekly Inspections are undertaken by trained instructors and are recorded to ensure all units are fully functional.</p> <p>The Segway itself will not fully activate unless all internal systems are functioning correctly. An error code will be displayed on the electronic 'key'.</p>		
03	<p>Falling from a Segway. Segway are safe and stable when ridden correctly over appropriate surfaces. However a fall could result from;</p> <p>Lack of understanding or capability with regards to how to control the Segway when</p> <ul style="list-style-type: none"> ○ Avoiding other forest users ○ Stepping off in an emergency ○ Riding off designated trails/trail boundaries <p>Riding the Segway in an incorrect manner.</p> <ul style="list-style-type: none"> ○ Riding too close together ○ Turning too sharply 	Med	Med	Staff + Customers	<p>The Segway will only be ridden by people that have been appropriately trained by an Instructor.</p> <p>They will be ridden under direct supervision until the Instructor has deemed the rider competent.</p> <p>All riders will be briefed that deliberate misuse and inappropriate riding of the Segway will result in curtailment of the Session</p> <p>Anyone suspected of being under the influence of alcohol and/or drugs will not be permitted to ride a Segway.</p> <p>The Segway route will be designed so that the Segway are only ridden on appropriate surfaces and along appropriate routes.</p> <p>Any trail used, where an instructor does not lead the participants, will be checked by a trained Instructor, during opening checks. They will principally check for any debris/damage likely to affect safe operation of the Segway.</p> <p>All other routes used will be led and dynamically assessed by appropriately trained instructors.</p>		Low

	<ul style="list-style-type: none"> ○ Not listening to instructions ○ Not looking up ○ Not looking forward ○ Overtaking ○ Racing ○ Swerving ○ Not following the set route <p>Riding into obstacles (most likely with just one wheel)</p> <ul style="list-style-type: none"> ○ Hit fence/obstacle ○ Contact with second Segway 				<p>All riders will wear a helmet, which conforms to standard EN1078 and will be inspected visually prior to use and formally after a dismount/incident. All helmets are marked with an identification number and a recorded inspection is carried out on a monthly basis</p> <p>Correct Riding procedures and techniques are covered in the Safety Rules and Advice and the Safety Brief.</p> <p>If a rider requires assistance during the session, they can use the emergency whistle provided.</p> <p>Group speed is dictated by the Lead Instructor. When not led by an instructor the unit remains in training mode to limit the speed.</p> <p>There is vehicular access to the main trails in case of emergency.</p> <p>Unattended Segway will be de-activated – with Operating Key kept separately.</p> <p>All Instructors are qualified first-aid trained and carry a first aid kit, two-way radio and mobile phone.</p>	
04	<p>Segway colliding with a pedestrian or other forest user.</p> <ul style="list-style-type: none"> ● Transition from training area to main riding trails may go through some narrow trails. ● On the main riding trails. 	Low	High	Staff, Customers, Members of the Public	<p>Following the safety brief, only competent people will be permitted to ride the Segway. They will be assessed by the instructor and must demonstrate control of the Segway riding forwards, backwards, turning, appropriate use of speed and correct behaviour.</p> <p>Following the Safety Brief, Customers will be led by an instructor, initially on the training mode.</p>	Low



					<p>Riders will be required to follow the Riding etiquette as outlined in the Forest Segway Safety Brief.</p> <p>All free ride trails start from a central hub and are signposted to be one-way trails. “No Entry” signs are located at the exit of each trail.</p> <p>Instructors will lead groups on existing trails, which have been assessed and they are familiar with – selecting and assessing the trails and suitability for the group as they ride.</p> <p>“Give Way” signs are located at the junction of all free ride trails.</p>		
05	<p>Getting lost –</p> <ul style="list-style-type: none"> • Participants could be separated from the rest of group • Poor visibility 	Low	Med	Customers	<p>On free ride trails signs will be in place.</p> <p>Trails into and around the free ride trails will be one-way and signposted.</p> <p>An instructor will be stationed at the central hub whilst riders are on the free ride trails</p> <p>Each participant will be trained during the Safety Brief in where their whistles are and when to use them in order to attract the attention of an instructor.</p> <p>All instructors will carry a two-way radio and be in contact with each other and base, where possible. Each group will have a mobile phone to contact base in case of an emergency.</p> <p>An instructor will accompany all customers in a ratio of at least 1:10</p> <ul style="list-style-type: none"> ○ With groups of 10 or less the lead instructor will stop regularly to ensure the group are together ○ With groups exceeding 10, a second instructor will ride at the back to ensure no one is left behind and assist with supervision of the group. 		Low



06	<p>Solo Riding/lone working</p> <p>The risks of riding a Segway remain a constant. However with lone working the consequences may be greater but can be mitigated with the proper preparation.</p>	Low	High	Staff	<p>A planned route or area, with an estimated return time should be logged with someone who can assist if necessary. (FC, bike hire, etc)</p> <p>A means of communication – e.g. mobile phone, FC radio.</p> <p>First aid/emergency kit to be carried</p> <p>Segway must be ridden at appropriate speeds</p>	Low