

Thurrock Council

Grangewaters Outdoor Education Centre risk assessments

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Introduction

Safety is always paramount at Grangewaters but it must be appreciated that an element of risk is inherent in adventure; absolute safety can never be guaranteed. It is however recognised that all reasonable precautions be taken to reduce this inherent element of risk.

Under health and safety legislation, Grangewaters has a duty to ensure the health and safety of those who participate in activities. Grangewaters also has a duty to ensure that no one else is harmed as a result of those activities. As part of this duty, Grangewaters must ensure that a risk assessment is undertaken by a competent person that covers those risks that are reasonably foreseeable.

This risk assessment is the process applied to the identification of hazards, the subsequent evaluation of the associated risks and the implementation of a series of control measures to minimize the risks highlighted.

Risk assessment is an ongoing process and is used as an aide memoir and induction training manual for Grangewaters staff and instructors. For each activity at Grangewaters an initial risk assessment is completed, the results recorded and reviewed at appropriate intervals. This risk assessment is intended to establish the criteria for safe practice.

Risk assessment matrix

Hazard is anything that has the potential to cause harm.

Risk is the likelihood that someone will be harmed by the hazard.

The risk associated with a hazard is a combination of the seriousness of the harm – **consequences** – and the probability – **likelihood** – that the event will occur.

An event may have many possible outcomes, ranging from a fatality to a near miss, and the likelihood of each outcome is different.

Consequence of harm

Consequence	Description
Extreme injury	Fatality or permanent disability
Major injury (definitions are from the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, RIDDOR)	<ol style="list-style-type: none"> I. Fracture other than to fingers, thumbs or toes II. Amputation III. Dislocation of the shoulder, hip, knee or spine IV. Loss of sight (temporary or permanent) V. Any penetrating eye injury VI. Injury resulting from an electric shock / burn leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours VII. Unconsciousness caused by asphyxia or exposure to a harmful substance VIII. Loss of unconsciousness arising from absorption of any substance by inhalation, ingestion or through the skin IX. Acute illness requiring medical treatment where there is reason to believe that this resulted from exposure to a biological agent, its toxins or infected material
Minor injury	Small cuts and grazes or injuries requiring minor medical treatment
Environmental / equipment damage	–

Likelihood of occurrence

Frequency of occurrence (likelihood)	description
Very likely	Occurs frequently
Likely	Likely to occur several times
Possible	Could occur sometime
Unlikely	Unlikely, though conceivable
Very unlikely	So unlikely that the probability is close to zero

Risk – high, medium, low or insignificant

Risk is the likelihood of occurrence relative to the consequence of the outcome.

Since risk is dependent on the likelihood of harm occurring, as well as the severity of the harmful outcome, it can be categorised qualitatively using the matrix below.

Consequence	Likelihood of occurrence				
	Very likely	Likely	Possible	Unlikely	Very unlikely
Extreme	High	High	High	Medium	Low
Major	High	High	Medium	Low	Insignificant
Minor	Medium	Medium	Low	Insignificant	Insignificant
Environmental / equipment damage	Medium	Medium	Insignificant	Insignificant	Insignificant

In the tables below, '**PARR**' is the post-action risk rating.

Risk assessment – general activities

Activity:	General activities – risks that will affect all activities	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Hypothermia	Participants / instructors	Extreme	Possible	High	Briefing on the importance of warm clothing / layers. The use of wetsuits and cags in colder conditions. Appropriate staff training given.	Low	None
Sunburn / Sun stroke	Participants / instructors	Major	Possible	Medium	Briefing on the importance of clothing (hat), covering up and the application of sunscreen. Constant monitoring by instructors. Sunscreen will be available for personal application from reception	Low	
Bruises / cuts / injuries to feet	Participants / instructors	Minor	Likely	Medium	Closed footwear will be worn at all times on any water activity. Participants to receive prior visit kit lists. Staff training given to ensure this rule is followed.	Low	
Heat exhaustion (effects of prolonged heat)	Participants / instructors	Extreme	Possible	High	Regular water breaks during activity time during hot weather. Use shade when available during hot weather and monitor fluid in-take where possible	Medium	

Risk	People at risk	Con-sequence	Like-lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Trips and falls	Participants / instructors	Major	Likely	High	Regular site maintenance. All equipment stored safely at the end each session. No extension leads to be left across high use areas. Down time supervision by visiting staff.	Medium	
Stings	Participants / instructors	Major	Possible	Medium	Maintenance of stinging nettles, regular checks in activity areas for wasp nests	Low	
Unauthorised use of equipment	Anyone on site	Extreme	Unlikely	Medium	Signs to state that any equipment must only be used under the supervision of qualified staff. The educational site has a security fence to prevent unauthorised access to the equipment, storage areas are locked when not in use	Low	
Intoxication	Participants	Extreme	Unlikely	Medium	No alcohol or drugs to be consumed by any participants prior or during any activity session	Low	
Car Park and road	Participants / instructors	Extreme	Unlikely	Medium	Safety brief to include areas to avoid. Cars must not drive above the speed of 5 miles an hour whilst on site. Pedestrians advised to use designated walkways and crossings	Low	
Wildlife	Participants / instructors	Major	Possible	Medium	Groups to keep clear of nesting birds and briefed on the importance of not approaching swans	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Water margin	All	Extreme	Possible	High	Disclosure to all participants to stay away from these areas unless accompanied by Grangewaters staff member. Clients to be made aware of where life rings are sited.	Medium	

Risk assessment – general water activities

Activity:	General water activities – risks that will affect all water sports	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Infection, including leptospirosis.	Participants / instructors	Extreme	Possible	High	All recent cuts to be covered. Instructions and info on quality of the water. participants advised to drink coke if they ingest water. advise all to take shower after water activities	Low	
Drowning	Participants / instructors	Extreme	Unlikely	Medium	All participants will wear a correctly fitted buoyancy aid. Constant monitoring of sessions by qualified centre staff. Open Water Swimmers (see separate RA)	Low	
Injury from safety boat	Participants / instructors	Major	Possible	Medium	Safety boat drivers to hold minimum of powerboat level 2. approach to people in water must be slow and controlled, staff monitoring	Insignificant	
Propeller injury	Participants / instructors	Extreme	Unlikely	Medium	Safety Boat driver to have minimum of Powerboat level 2. Staff monitoring Turn of engine on pick up. Engine to be kept furthest from dinghy / person.	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Panic on immersion	Participants	Extreme	Possible	High	Instructor briefing to include water confidence and safety. Rescue boats to be available for activities in form of powerboat SUP and canoe, use of reaching pole / throw line within jetty area.	Medium	
Poor water quality	All water users	Environment	Possible	Insignificant	Use of barley hay and hydrated lime to keep the possibility of blue green algae to a minimum. The water to be air rated If water quality is in doubt, the environmental services must be contacted to perform a water quality check test. Results must be adhered to	Insignificant	
Slipping on slipway / launch area	Participants / instructors	Major	Likely	High	Ensure group are aware that the water's edge can be slippery when wet during briefing,	Low	
Prop damage	staff	Equipment	Possible	Insignificant	All staff level 2 powerboat driver, shallow drive used near shores.	Insignificant	
Overhanging Branches	Participants / instructors	Major	Possible	Medium	Instructor to be aware where there may be a potential risk, maintain water's edge during AOR checks	Insignificant	
Slips, trips and falls	Participants / instructors	Major	Possible	Medium	Give initial safety brief on avoidance of stepping over boats, cleats on the jetty and paddles on the ground, take extra care on banks and especially in the wet	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Prevailing weather conditions	Participants / instructors	Major	Possible	Medium	Session will be adapted to conditions, age and ability of participants; this may include launch area or change of activity area	Low	
Collision / other water users	Participants / instructors	Major	Possible	Medium	Groups must be briefed on the avoidance of other groups and boats.	Low	
Fishermen / Lines	Participants / instructors	Minor	Possible	Low	Instructor to brief group on avoidance of fishing lines, communication between staff and fisherman	Insignificant	
Propeller entanglement	Participants / instructors	Equipment	Possible	Insignificant	Approach to any boats in reeds or shallows bow first and tow with bowline only. Instructor to carry a knife	Insignificant	
Bird excrement	All visitors	Major	Likely	High	Jetty to be regularly cleaned,	Low	

Risk assessment – kayak / canoe

Activity:	Kayak / canoe	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Trapped in kayak	Participants	Extreme	Possible	High	Demonstration during safety briefing on capsize and recovery. Instructor to be positioned centrally to the group during session and the group kept together	Medium	
Hit by paddle	Participants / instructors	Minor	Possible	Low	Safety briefing to include safe use of paddle. Any close contact games to include the use of a helmet	Insignificant	
Head injury from jetty or bank protection	Participants	Major	Possible	Medium	Any paddle practice to be held a safe distance from the banks. No standing games whilst rafted close to jetty or bank	Low	
Panic on Capsize / immersion	Participants	Major	Possible	Medium	Instructor briefing to include water confidence and safety. Capsize drill briefing.	Low	
Slalom Course poles	Participants	Minor	Possible	Low	completing the course under the instruction of a paddle coach	Insignificant	
Muscle fatigue	Participants / instructors	Minor	Possible	Low	Warm up and stretches included in session brief	Insignificant	
Tangled in Painters	Participants / instructors	Major	Unlikely	Low	Ensure all painters are tied securely onto yolks or thwarts	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Manual handling injury	Participants / instructors	Major	Possible	Medium	Kayaks should be carried one at a time or in pairs (dependent on age); canoes must be carried in pairs. Care taken when putting canoes into storage racking	Low	

Risk assessment – dinghy sailing

Activity:	Dinghy sailing	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Head injury from boom	Participants	Major	Possible	Medium	Demonstration on avoidance of the boom in safety brief. Helmets available. Sails rigged appropriately for weather conditions	Low	
Injury from collision	Participants	Major	Possible	Medium	Experienced criteria for crewed boats, rules of the road followed. Staff training and monitoring on sessions.	Low	
Entrapment under sail or inverted boat	Participants	Extreme	Possible	High	safety briefing. Close supervision on water from trained and competent staff. Staff to carry serrated knife in buoyancy aid. Boats should be rigged and tidy to reduce the risk of entrapment.	Medium	
Inverted boats	All	Equipment	Possible	Insignificant	Explanation and close supervision Importance of only holding on to boat, during capsize	Insignificant	

Risk assessment – powerboat driving

Activity:	Powerboat driving	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Driver falling from safety boat	Participants / instructors	Major	Unlikely	Low	Boat fitted with isolation switch. Kill cord always attached to driver's top of leg. Staff induction training to boats followed by monitoring. Spare kill cord kept on board in first aid kit	Insignificant	
Unauthorised driving	Participants / instructors	Extreme	Unlikely	Medium	Kill cord to be removed and only held by trained and competent staff. Staff induction training and monitoring.	Low	
Entanglement on tow line	Participants / instructors	Equipment	Possible	Insignificant	Knife to be carried. Staff induction training and monitoring	Insignificant	
Injury from collision	Participants	Extreme	Unlikely	Medium	Constant look out and observation whilst on the lake. Avoid tunnel vision.	Low	
Fuel tank moving	Participants / instructors	Equipment Damage / Environment	Possible	Insignificant	Tank secured to boat, driver pre-checks carried out	Insignificant	
Engine failure	Participants	Minor	Possible	Low	Oars or paddle on board plus an anchor or mud weight. Maintenance programme to be followed.	Insignificant	

Risk assessment – canoe / raft building

Activity:	Canoe / raft building	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Entanglement	Participants	Major	Possible	Medium	Knife to be carried. Staff induction and training on tying knots and straps correctly. Risk disclosure.	Low	
Sinking / break-up of raft	Participants / instructors	Major	Likely	High	All equipment checked for buoyancy. Equipment counted back at the end of session to ensure no floating debris. Powerboat available to aid with rescue of people and equipment, constant head count to be done	Medium	
Rope burn	Participants / instructors	Minor	Possible	Low	Care taken when knot tying and safety brief given on ropes not being run over bare skin	Insignificant	
Off-shore wind	Participants	Minor	Likely	Medium	Rafts to be kept in jetty area in off-shore wind, possibly use a boom or tether the rafts in strong winds	Low	
Manual handling injury	Participants / instructors	Major	Possible	Medium	Risk disclosure on safe lifting practice. Staff training. The whole team needs to be involved in lifting the raft and brief on safe manual handling.	Low	
Crush injury	Participants	Major	Possible	Medium	Participants are not to carry raft from front whilst being moved, towards the water	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Splinters	Participants	Minor	Possible	Low	Planks and Poles regularly checked for breaks and splinters	Insignificant	
Lifting planks, poles and barrels	Participants / instructors	Minor	Possible	Low	Safety brief before lifting to include being aware of where other members of the group are located. Planks / poles carried as a pair for under 16s	Insignificant	
Falling over / off in canoe raft / raft	Participants	Maj	Likely	High	Instructions given as where to, how to move about the various rafts and were to sit. Instructors to keep constant head count, buoyancy aids to be worn by all	Medium	
Hit by paddle	Participants	Minor	Possible	Low	Correct usage and safety brief given by instructor	Insignificant	
Specific for Raft							
Head Injury	Participants / instructors	Major	Possible	Medium	Correct usage of paddle and safety brief given by instructor. Instructors to complete a full brief on how to correctly handle all materials safely	Low	
Specific Canoe or Raft							
Capsizing or swamped raft	Participants	Minor	Likely	Medium	Safety brief given by staff, rafts to be only capsized or swamped within easy reach of the bank or jetty, constant head count to be done	Low	

Risk assessment – stand-up paddle boards

Activity:	Stand-up paddle boards	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Collision	Participants	Major	Possible	Medium	Group must be briefed on avoidance of other groups, other craft and jetty	Low	
Head injury from being hit by / falling from board	Participants / instructors	Major	Possible	Medium	A safety briefing and constant monitoring of the session. Balance games to be run away from jetty and banks, no one to stand on board if closer than 1 boards length to the bank, jetty or other board	Low	
Group control / star effect	Participants	Minor	Likely	Medium	Safety boat to keep group control, staff training and monitoring. Look at prevailing wind conditions and restrict area of activity if needed, avoid a bomb burst effect.	Low	
Hit by paddle	Participants / instructors	Minor	Possible	Low	Safety briefing to include safe use of paddle and maximum height of below waist.	Insignificant	
Panic on capsize / immersion	Participants	Major	Possible	Medium	Instructor briefing to include water confidence and safety. Capsize / falling off drill briefing. Brief to include the use of a leash.	Low	
Muscle fatigue	Participants / instructors	Minor	Possible	Low	Warm up and stretches included in session brief	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Tangled in leash	Participants / instructors	Major	Unlikely	Low	Ensure group have been briefed on the safe practice of how to use and remove a leash	Insignificant	
Manual handling injury	Participants / instructors	Major	Possible	Medium	Boards must be carried one at a time or in pairs (dependent on age)	Low	

Risk assessment – jetty jump / slipway entry and exit for open water swimming

Activity:	Jetty jump / slipway entry and exit for open water swimming	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Unauthorised access	All visitors	Extreme	Likely	High	Signs at jetty entrance, barrier chain always across and only removed by instructor to allow access	Medium	
Being pushed	All participants	Major	Possible	Medium	Safety briefing given to all participants before moving onto jetty / slip way to include no running or pushing and to listen to instructions	Low	
Collision with jetty	All participants	Major	Possible	Medium	Instructions to group not to front or back flip and to jump away from the jetty.	Low	
Tripping over cleats	All participants	Major	Unlikely	Low	Participants made aware of cleats and instructors to position group away from directly standing behind the cleats	Insignificant	
Powerboats hitting jumpers	All participants	Extreme	Unlikely	Medium	Jumps must not commence if powerboats are in the jumping area. If a jetty jump has commenced powerboat drivers must part on the opposite side to the jumpers	Low	
Entanglement with other water users and buoys	All participants	Extreme	Unlikely	Medium	Jetty jump must not commence when other water users are using the same jetty area	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Collision in water	All participants	Major	Possible	Medium	Any jumpers in the water must swim clear before any further jumps take place	Low	
Fingers caught between jetty	All participants	Minor	Unlikely	Insignificant	Safety brief to include where to sit or where to hold on to the jetty	Insignificant	
Panicking on emersion	All participants	Major	Possible	Medium	All participants entering the water will need to gradually immerse themselves into the water via the beach prior to jumping from the Jetty. Weather conditions to be taken into consideration before doing jump. Participants are asked swimming ability before attempting. Use reaching pole / throw line	Low	
Specific for Open Water Swimming							
Drowning	All participants	Extreme	Possible	High	Canoe / stand-up paddleboard / powerboat rescue to be on water at all times and within close proximity. Open water swimmers will not be wearing personal flotation device, so further training for staff should take place		Safety cover staff have received in house training according to standard operating procedures

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Risk of hyperthermia / exhaustion	All participants	Extreme	Possible	High	Lake Temperatures to be monitored and used as a guide for swimmers. Time guidelines as follows: 0.3-4.4 degrees C- 15- 30 minutes 3.3-10 degrees C- 30-60 minutes 10-15.6 degrees C- 1-2 hours. GW Safety Cover Staff have the overall say and can decrease water access times for swimmers if deemed necessary.		
Slip way entrance / exiting the water	All participants	Major	Possible	High	All participants are advised to wear suitable footwear specifically for water use. Participants will be advised to walk with care, and that no more than 2 participants are entering the water at any one time via the slip way.		
Communicating with swimmers once on / in the water	All participants	Major	Possible	High	All participants to be briefed on “3 whistles” (SOP’s) prior to activity.		
Swimmers needing to exit the lake immediately via bank / jetty / power craft	All participants	Minor	Possible	Medium	Swimmers to leave the water calmly and follow instructions of the safety cover. Swimmers to exit lake via closest or most accessible method, be vigilant of any obstacles that may cause harm		

Risk assessment – jetty hoist

Activity:	Jetty hoist)	Date revised:	31 August 2022
Location:	Grangewaters lake	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Wheelchair user falls in whilst in chair	Wheelchair participants	Extreme	Possible	High	Wheelchair user must be unstrapped before going onto the jetty, all staff given relevant training. All participants to wear a correctly fitted buoyancy aid. Wheelchair must always be held by carer or instructor when not in motion on the jetty or brake applied	Low	
Hoist failing	All participants and helpers	Major	Unlikely	Low	Hoist left on 'lift' when not in use. Hoist must be checked annually by independent inspections and regularly by competent member of Grangewaters staff team	Insignificant	
Participants falling out of sling	Participants	Major	Possible	Low	Correct sized sling to participant and attached to the correct loops – staff training and monitoring	Insignificant	
Boat drifting when hoisting	All participants and helpers	Major	Possible	Low	Boats to be appropriately attached to jetty – fore and aft. Staff training and monitoring	Insignificant	
Hoist swinging uncontrolled	All participants and helpers	Major	Possible	Low	Two people to help control the hoist arm	Insignificant	

Risk assessment – mountain biking

Activity:	Mountain biking	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Head injury	Participants / instructors	Major	Possible	High	Helmet to be worn at all times. Safety brief to include safe riding and technique. Staff training and monitoring.	Low	
Collision	Participants / instructors	Major	Possible	High	Safety brief to include safe riding and technique. Front and rear high visibility jackets worn off site on roads.	Low	
Falling from bike	Participants / instructors	Major	Likely	High	Safety brief to include safe riding and technique. Correct bike size fitted to each participant. Rider ability matched to session	Low	
Equipment failure	Participants / instructors	Equipment Damage	Likely	Medium	Regular maintenance programme followed. Each bike to be checked prior the start of each session. repair kit taken out on rides	Insignificant	
Cuts / abrasions / grazes	Participants / instructors	Minor	Likely	Medium	Route and course maintenance. First aid kit to be carried by instructor	Insignificant	
Clothing caught	Participants / instructors	Minor	Possible	Low	Loose trousers, clothing and laces to be tucked in. Taped trouser legs where necessary. Bike maintenance – for example, chain ring guards	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Other site / road users	Participants / instructors	Major	Possible	Medium	Group control when off site to include pre-checked routes. A whistle to be held by instructors. Responsible adult or instructor to be positioned at the front and back of group if appropriate	Low	
Heat Exhaustion	Participants / instructors	Major	Possible	Medium	Regular stops on hot days with water breaks and shade if appropriate	Low	
Mis-use of Bikes	Participants	Equipment Damage	Possible	Insignificant	Safety brief given to the group before collection of bikes on the safe use of the bikes and activity session.	Insignificant	
Tyre failure	Participants / instructors	Minor	Likely	Medium	Use of front and rear lift for wheels. Any puncture to be replaced by new tube as soon as is convenient.	Low	
Falling off path	Participants / instructors	Major	Possible	Medium	Care to be taken along the north path of the little Grange lake, riders to dismount and walk if inexperienced. Fenced barrier and route diversion along steep north bank of Little Grange	Low	
Eye injury	Participants / instructors	Major	Possible	Medium	Tracks to be cut back and maintained. Eye protection to be worn at offsite venues away from Grangewaters.	Low	
Tracks beyond rider ability	Participants / instructors	Major	Unlikely	Low	All participants must complete every riding level before moving to next one. Instructors will only deliver to levels that they trained and assessed too.	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Wire stay across path from the zip line	Participants / instructors	Extreme	Possible	High	The group must be stopped on the approach to the wire and pointed out the hazard and care to be taken whilst negotiating the route under the wire.	Low	
Collision	Participants	Major	Possible	Medium	Number of bikes using the track to be kept at a maximum of three, safety brief to include safe riding and technique. Establish direction of travel and ensure observers are in the correct area. Regular maintenance of padding on trees where necessary	Low	
Falling from platform / tyres slipping	Participants / instructors	Major	Possible	Medium	Ensure participants ability is suitable – that is, are they competent and confident and completed level two. Safety brief to include safe riding and technique. Check the condition of the wood on the track, if wet it will be more slippery, consider walking around feature.	Low	

Risk assessment – orienteering

Activity:	Orienteering	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Getting lost	Participants	Extreme	Possible	High	Defined boundaries and use of a course according to the age / ability of group. Supply whistle to each pair or group when required.	Low	
Stranger danger	Participants	Extreme	Unlikely	Medium	Defined boundary, instructor to control direction of groups and close supervision of younger group members. Whistle used by groups to attract attention. Courses used within the fenced area for younger groups. Groups to receive safety brief including – not talking to strangers and staying together as a group	Low	
Water	Participants	Extreme	Unlikely	Medium	Safety brief to include not going onto fishing swims or near the water's edge. All marker posts are kept clear of the water's edge	Low	
Trips / Falls	Participants / instructors	Major	Possible	Medium	Paths to be kept clear and free of trip hazards, encourage groups to use paths and not to fight through deep undergrowth	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Cuts / abrasions / grazes	Participants	Minor	Possible	Low	Orienteering course maintenance programme.	Insignificant	
Activity equipment	Participants	Minor	Possible	Low	Safety brief to include – not using or going on any of the activity equipment and the no go zones marked on the map	Insignificant	
Interference from other sessions	Participants	Minor	Possible	Low	Safety brief to include – no go zones marked on the map, specially pointing out where the overshoot area is of the archery range	Insignificant	
Quad bikes	Participants / instructors	Major	Possible	Medium	If unauthorised quad bikes are using the outer paths of the site, orienteering must take place within the fenced area	Low	
Cars on road / car park	Participants / instructors	Extreme	Unlikely	Medium	Safety brief to include – safe use of the road, walking along the kerb and staying together as a group.	Low	

Risk assessment – camping

Activity:	Camping	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Hypothermia	Participants / instructors	Extreme	Possible	High	Participants to wear correct clothing, to carry spare clothing, adequate sleeping bags for the conditions, well-maintained tents and equipment. Staff in constant supervision.	Low	
Burns	Participants / instructors	Major	Possible	Medium	Training in campcraft and the safe use of stoves, fuel and matches. Stoves always lit on level ground. Cooking area situated away from tented area.	Low	
Stomach upsets	Participants / instructors	Major	Possible	Medium	Water from designated area set by trained staff, all food to be thoroughly cooked and hot.	Low	
Trips or falls	Participants / instructors	Major	Possible	Medium	Torches to be used at night, Training and safety brief on campcraft to include awareness of guy ropes.	Low	
Stranger Danger	Participants	Extreme	Unlikely	Medium	Group kept together around central camp area. Group to work in pairs.	Low	
Emotional upset	Participants	Major	Possible	Medium	Reassurance from staff team and monitoring. Use of peers to comfort	Low	

Risk assessment – archery

Activity:	Archery	Date revised:	31 August 2022
Location:	Grangewaters archery range	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Being struck / hit by arrow	Participants / instructors / visitors	Extreme	Possible	High	Safety briefing to include use of safety line and shooting line. Safety / danger signs to surround the fenced overshoot area. Any spare arrows must always remain with the instructor. Arrows to be stored separately to the bows. No un-shot arrows must remain on the line if arrows at the targets are being collected. Participants advised to stay in waiting shelter until their go	Low	
Walking onto arrow embedded in ground or target	Participants / instructors	Extreme	Possible	High	Safety briefing and demonstration to include procedure for collecting arrows. Participants to walk up the side of the targets and retrieve arrows from outside in	Low	
Injury when transporting the arrows	Participants / instructors	Extreme	Possible	High	Instructor to carry arrows to and from range in quiver. Participants to point arrows towards ground when carrying them on the range.	Low	
Pulling target boss over	Participants / instructors	Major	Possible	Medium	Instructor to demo safe collection of arrows	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Bruising from bow string	Participants	Minor	Likely	Medium	Brief for arms to be covered by clothes, offer use of arm brace if available and demonstrate effective draw technique.	Low	
Trip or fall	Participants / instructors	Major	Likely	High	Safety brief given to group to include no running and use of platforms. All groups are to be advised of slippery / uneven approach to the range, and advised to walk in the middle of path	Low	
Glue inhalation	Instructors	Extreme	Likely	High	Staff training on replacement of fletchings and the importance of a ventilated area.	Low	

Risk assessment – bushcraft

Activity:	Bushcraft	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Manual handling	Participants	Major	Possible	Medium	Risk disclosure and safety brief given to groups to include safe lifting practice and pairs to carry logs.	Low	
Being struck by pole / tree stump	Participants / instructors	Major	Possible	Medium	Participants to carry logs or poles in pairs. Any knots to checked and tightened by instructors if required. Brief to all participants on spatial awareness.	Low	
Rope burn	Participants / instructors	Minor	Possible	Low	Risk disclosure on using ropes, with care taken not to run rope over bare skin	Insignificant	
Graze or cut on hands	Participants / instructors	Minor	Possible	Low	Supply gloves where groups are moving sharp objects or clearing a level area	Insignificant	
Injury to eyes	Participants	Extreme	Possible	High	Risk Disclosure on safe movement around survival area	Low	
Splinters	Participants / instructors	Minor	Possible	Low	Gloves to be worn when moving logs, undergrowth etc	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Burns	all	Major	Possible	Medium	All staff and participants to know how to deal with burns. Disclosure to be made to groups about the dangers of fire. Evening activity fires to be set by competent adult. Seating to be placed at suitable distance from fire	Low	
Fire spread	all	Environ	Possible	Insignificant	Campfires not to be left unattended unless no flames are present. Fire safety equipment to be available – that is, extinguisher or blanket. Only use designated fire pit areas as advised by Centre Manager / Team Leader	Insignificant	
Scalding	all	Major	Possible	Medium	Fires to be left to burn out, water should not be used where possible, this will reduce risk of steam.	Low	
Damage to environment	all	Environment	Possible	Insignificant	For evening activities designated fire pit must only be used	Insignificant	
Smoke inhalation	all	Major	Possible	Medium	Ensure there is plenty of room for smoke to escape from fire, only seasoned wood should be burnt	Low	
Nails	all	Minor	Possible	Medium	Where possible natural wood should be used for fires, and pallets should be avoided	Low	

Risk assessment – environmental activities / work

Activity:	Environmental activities / work	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Injury from use of spades, forks, shovels and rakes	Participants / instructors	Major	Possible	Medium	Safety brief given on safe use of each tool. Not to leave tools as a trip hazard or where someone may inadvertently step on them. Instructor to ensure participants have appropriate footwear (closed toe shoes to be worn).	Low	
Splinters / thorns	Participants / instructors	Major	Possible	Medium	Participants to use gloves where coarse and rough timber is being used, participants must be aware of their environment particular care must be taken around black thorn.	Low	
Falling	Participants / instructors	Major	Possible	Medium	Safety brief given to group, including uneven ground with holes to be marked by marker poles. Tools to be carried appropriately	Low	
Injury from use of hand tools	Participants	Major	Possible	Medium	Safety brief given on use of hand tools, including hand saw, hammer, and battery-powered screwdrivers. (No person under 18 to use power tools)	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Manual handling	Participants / instructors	Major	Possible	Medium	Participants to be instructed, if necessary, on safe lifting technique. Spread the load between more people if necessary	Low	

Risk assessment – team building / challenge course

Activity:	Team building / challenge course	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Injury whilst blindfolded	Participants	Major	Possible	Medium	Instructor to be vigilant with risk disclosure given to the group	Low	
Tripping / slipping off elements	Participants / instructors	Major	Possible	Medium	The group to be made aware during the safety brief given by Instructor	Low	
Falling from obstacle / being dropped	Participants / instructors	Major	Possible	Medium	Safety brief given before each obstacle, spotters to be used on lower obstacles, group members must use safe lifting techniques. Instructors must be in a position to stop fall if needed	Low	
Head Injury	Participants	Major	Possible	Medium	Helmet to be worn whilst using any of the equipment with helmet signs on	Low	
Equipment Failure	Participants / instructors	Extreme	Possible	High	Daily, monthly and annual inspections by centre staff of all obstacles	Low	
Emotional	Participants	Extreme	Possible	High	Challenge by choice, staff training.	Low	
Rope burn	Participants / instructors	Minor	Possible	Low	Safety brief to be given on any rope obstacle on safe use of the ropes	Insignificant	
Entrapment in the tunnel	Participants	Major	Possible	Medium	Challenge by choice, Instructor training on safe removal if necessary	Low	
Manual Handling	Participants	Major	Possible	Medium	Risk disclosure and safety brief given to groups to include safe lifting practice	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Entrapment of fingers	Participants	Minor	Possible	Low	Safety brief before the cargo net to include safe climbing on ropes and how to 'go over the top'	Insignificant	
Splinters	Participants	Minor	Possible	Low	Daily, monthly and annual inspections by centre staff of all obstacles	Insignificant	
Foreign body in the eye	Participants / instructors	Major	Possible	Medium	A safety gap must be left between each participant when doing each obstacle, Instructor must carry saline solution in a first aid kit	Low	
Injury from mobile equipment	Participants	Major	Possible	Medium	Heavy or awkward objects to be carried in pairs. Safety brief to be given at each task location	Low	
Destroying teams	Participants	Extreme	Possible	High	All instructors must ensure that whilst developing teams it is easy to destroy them. work to develop basic skills such as strengths of the team / individuals, If more able, more advanced team building techniques can be applied but the instructor must ensure they leave enough time to rebuild and repair any damage incurred to the team	Low	

Risk assessment – evening campfire

Activity:	Evening campfire	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Burns	All	Major	Possible	Medium	All staff and participants to know how to deal with burns. Disclosure to be made to groups about the dangers of fire. Evening activity fires to be set by competent adult. Seating to be placed at suitable distance from fire	Low	
Fire spread	All	Environ	Possible	Insignificant	Campfires not to be left unattended unless no flames are present. Fire safety equipment to be available – that is, extinguisher or blanket. Only use designated fire pit areas as advised by Centre Manager / Team Leader	Insignificant	
Scalding	All	Major	Possible	Medium	Fires to be left to burn out, water should not be used where possible, this will reduce risk of steam.	Low	
Damage to environment	All	Environment	Possible	Insignificant	For evening activities designated fire pit must only be used	Insignificant	
Smoke inhalation	All	Major	Possible	Medium	Ensure there is plenty of room for smoke to escape from fire, only seasoned wood should be burnt	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Nails	All	Minor	Possible	Medium	Where possible natural wood should be used for fires, and pallets should be avoided	Low	

Risk assessment – pioneering

Activity:	Pioneering	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Falling	All	Major	Possible	Medium	Spotting provided where needed. Structures to be tested by staff for stability.	Low	
Head injury	All	Major	Possible	Medium	Disclosure to be given to participants, where possible 2 people should be involved in the carrying of equipment	Low	
splinters	All	Minor	Possible	Low	Poles to be checked on regular basis for damage, any damaged poles to be removed from service	Insignificant	
Rope burn	Participants / instructors	Minor	Possible	Low	Care taken when knot tying and safety brief given on ropes not being run over bare skin	Insignificant	
Manual handling injury	Participants / instructors	Major	Possible	Medium	Risk disclosure on safe lifting practice. Staff training. The whole team needs to be involved in lifting the raft	Low	
Crush injury	Participants	Major	Possible	Medium	Participants are not to carry raft from front whilst being moved, towards the water	Low	

Risk assessment – general towers

Activity:	General towers – risks that will affect all towers	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Head injury	Participants / instructors / visitors	Major	Possible	Medium	Helmets to be worn by all whilst within the perimeter fence. laid out prior to session	Low	
Equipment failure primary (out of use)	Participants / instructors	Extreme	Possible	High	Daily, monthly and annual inspections by qualified staff.	Low	
Equipment failure secondary (monitor)	Participants / instructors	Extreme	Possible	High	Daily, monthly and annual inspections by qualified staff. Staff will check ropes and hardware on daily use.	Low	
Splinters	Participants / instructors	Minor	Possible	Low	Daily, monthly and annual inspections by qualified staff. A course maintenance programme to be followed.	Insignificant	
Fence breaking and stones	Participants	Minor	Possible	Low	Safety brief given to group before entering fenced area to include not sitting on fence or throwing stones, constant instructor vigilance.	Insignificant	
Jewellery, Clothing or hair snags	Participants	Major	Possible	Medium	Rings and loose jewellery to be removed, loose clothing tucked in and hair tied back.	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Rope burns	Participants / instructors	Major	Possible	Medium	Staff to supervise belaying. Staff training + monitoring.	Low	
Emotional	Participants	Extreme	Possible	High	Challenge by choice, staff training.	Low	
Injury from uncontrolled belaying	Participants	Extreme	Possible	High	All instructors will have completed a comprehensive training, shadowing, competence and assessment training. Belay demonstration given by instructor to include lowering. Gri Gri not to be used with novice climbers. Climbers must not leave the ground until the supervising instructor has checked the competence of the belayers. Correct belay procedure to be followed, including backup belaying. Peer belaying to be constantly monitored and co-ordinated by instructors. Based on the ability of the group, the instructor will use 3, 2, 1 or no peer belay groups. Instructor to be in charge of no more than 3 ropes at any one time and must be able to see and supervise all of these. Instructors to tie knots in dead rope at designated intervals on the tower.	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Falling	Participants	Extreme	Possible	High	Appropriate harnesses for activity to be used, whether sit, chesty or full body. All harnesses to fitted correctly and checked by instructors. Staff to closely supervise belaying. Staff training + monitoring.	Low	
Falling down central climbing shaft	Participants / instructors	Extreme	Possible	High	Both first-floor level wooden barriers to remain across when not in use. Metal rails on top platform to remain across when not in use	Low	

Risk assessment – bottom of tower

Activity:	Bottom of tower (peer belay) climb and all high ropes, bottom zip	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Entanglement of ropes, harnesses and collision	Participants	Major	Possible	Medium	Staff to closely supervise belaying. Staff training + monitoring. Participants must not climb directly above or below other participants.	Low	
Helmet strap catching on holds during lower	Participants	Extreme	Possible	High	Instructor to monitor lowering, instructions to climber to face the wall and place feet shoulder width apart and not to spin	Low	
Unclipped on top platform	Participants / instructors	Extreme	Possible	High	Instructors to be clipped to lifeline at all times during session and set up. Participants to stop at the red step and barrier in order to be tied in safely, participants to practice clipping in at bottom of tower before ascending stairs.	Low	
Crate stack falling over	Participants / instructors	Major	Very Likely	High	Position the stack on the platform, consideration to climbers on peg climb and Jacobs's ladder. Crate stack not to be used with three groups in area.	Low	
Cut from wire ends	Participants / instructors	Minor	Possible	Low	Wire spilt ends covered by tape, disclosure to participants	Insignificant	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Falling from ladder or ladder falling over	Participants / instructors	Major	Possible	Medium	Ladders must be secured when in use and supported at the bottom when participants are climbing	Low	
Rope / group control	Participants	Major	Possible	Medium	Once staff assessed competent and confident supervising 3 ropes, on either, climb or Jacobs they will be assessed for all elements of peer belaying at bottom of tower and bottom of the zip	Low	

Risk assessment – top of tower

Activity:	Top of tower – abseiling, zip, cave	Date revised:	31 August 2022
Location:	Grangewaters Outdoor Education Centre	Carried out by:	Lucy Fernie

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Falling from platforms	Participants / instructors	Extreme	Possible	High	On the top platform both the instructor and participant will be attached to a lifeline or safety rope with an approved harness. Staff to verify correct tying in. Staff training and monitoring.	Low	
Falling on stairs	Participants / instructors	Major	Possible	Medium	Route marked on the floor of the tower. Brief given to participants not to run up the stairs	Low	
Rope / group management	Participants	Extreme	Possible	High	Instructors will be assessed competent on bottom of tower before being assessed for Zip top. Instructors will be assessed competent on top Zip before being assessed for abseil, once assessed on abseil instructors will automatically be competent for cave	Low	
Specific for Zip							
Trapped fingers / Clothing	Participants	Major	Possible	Medium	Participants must be positioned on wire out of reach of the trolley, all loose clothing to be tucked in on descent.	Low	
Hitting a branch / tree on descent	Participants	Major	Possible	Medium	Trees to be monitored and cut back when necessary	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Uncontrolled descent from wire to ground	Participants / instructors	Major	Possible	Medium	Instructor will position the ladder trolley for the participants to descend at the end of the line. Instructor to lower participant.	Low	
Collision with bank at the end of the zip line	Participants	Major	Possible	Medium	Weight limit set at 18 stone. Bank height reduced to account for any slackness in the wire.	Low	
Falling from ladder	Instructors or person on ladder	Major	Possible	Medium	Instructor or person at the base of the line to receive appropriate training to ensure safe removal of participants and the zip trolley using trolley ladder	Low	
Participant colliding with person or object at the landing zone	Participants / instructors	Major	Possible	Medium	Person in charge at the landing zone must ensure the area is clear and communicate with the instructor on the tower when it is safe for participants to descend	Low	
Specific for Abseil							
Rope burns	Participants	Major	Possible	Medium	Correct descent technique demonstrated for hand, and enforced by instructor	Low	
Falling to one side whilst abseiling	Participants	Minor	Possible	Low	Demo given to show correct abseil position. Instructor to constantly watch the abseilers position and correct when necessary	Insignificant	
Fingers caught in abseil device	Participants	Major	Possible	Medium	Safety brief given to participants. Hands kept a significant distance from the abseil device	Low	

Risk	People at risk	Con- sequence	Like- lihood	Risk rating	Control measures to minimise risk	PARR	Further action to reduce risk
Stuck on abseil	Participants	Minor	Possible	Low	Releasable abseil system. Staff to be trained and monitored, continuous scenario training.	Insignificant	
Hitting tower	Participants	Minor	Possible	Low	Correct descent demonstrated and constant monitoring by instructor		
Specific for Cave Ladder							
Leg entrapment	Participants	Major	Possible	Medium	Tight safety rope at all times. Close supervision to belayers. Clear instructions and demo given by instructor before climbers ascend	Low	
Belayer control	Participants	Major	Possible	Medium	Belayer to be backed up with a second person holding the back of the belayer harness, a third person to support by holding dead rope	Low	
Hit by ladder	Participants / instructors	Minor	Possible	Low	The ladder to be supported by two members of the group until the climbers reach the sixth rung and risk disclosure on climbing the ladder given with short demo	Insignificant	