

Via Ferrata Cornwall Procedure 2023.2

THIS INCLUDES RISK ASSESSMENTS, LESSON PLANS AND
GENERAL PROCEDURES

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Via Ferrata

Normal Operating Procedures

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Policy statement

Via Ferrata Cornwall CIC (VFC) is proud to develop and provide activities that challenge and inspire growth in all users but with young people as its primary focus. We strongly believe that by creating environments that explore risk then learning is natural and fun and as such we have created a set of policies and procedures to manage the risks to what we believe to be an acceptable level. To remove the risks completely removes huge elements of the key learning so the control measures set in this policy are a balance we believe sits between absolute safety and rich, lifelong development.



Through consultation with our staff, service users and external professionals we have created a set of Normal Operating Procedures (NOP, this document) that govern how we operate our activities and also a more general set of policies and procedures (policy folder) that apply to all aspects of delivery.

Our staff are well trained and some are very experienced. To meet service user's needs, we at times operate activities that are not normal. We actively encourage staff to think creatively and put our services users at the heart of their delivery and in these situations bespoke risk assessments, lesson plans are agreed with the Centre Manager.

This document outlines the centre wide and activity specific requirements in the form of Risk Assessments, Normal Operating procedures (NOPS) and Session Plans and how we would normally expect to operate.

A handwritten signature in black ink on a white background.

Tony Baker
Centre Manager



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Updates

Version	Date	Update	Updated by
1	11/1/22	1. Draft version – minor tweaks	TB
2023.1	31/1/23	1. TA review and updates edited	TB/EY
2023.2	13/3/23	1. Zip tour updates and other activity additions	TB

Via Ferrata Cornwall CIC and BF Adventure Relationship

Via Ferrata Cornwall CIC (VFC), Company Number 12471065 was established by and is wholly owned the parent charity & company BF Adventure Ltd (BFA); Charity Number 1071862, Company Number 3546772. VFC is a VAT registered trading entity with a driving focus to generate profit with the aim to supporting the Charity BF Adventure.

VFC is its own legal entity but shares much of its resources with BFA, these include:

- **Site** – both companies share the same site with VFC licenced by BFA to operate specific activities and in specific areas. (I.e. Via Ferrata Course/Activity)
- **Resources** - these are purchased by either company for their specific activities and listed as 'assets' against each company. Each company loans or hires out activity resources to the other on a case-by-case basis
- **Staff** – VFC employs no staff directly with staff seconded from BF Adventure, all staff are employed under group terms and conditions, contracted and paid via the parent charity BFA.
- **Training**- All staff are trained and assessed through BF Adventure and qualifications are managed though the BFA management systems
- **Insurance** - both companies operate under the same comprehensive insurance policy
- **Licence** – both companies have separate licences
- **Directors** / trustees – both companies have their own governance
- **Policies** – much of VFC policies are taken directly from BF Adventure, these policies include:
 - Staff handbook
 - Policy folder
 - Safeguarding procedures

Risk Management

Process of documenting risk management

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- All activities are risk assessed by an experienced Instructor
- From the risk assessment a lesson plan and Normal Operating Procedure (NOP) is written and produced
- A training, assessment and refresher schedule ensures that all staff adhere to this through monitoring and training
- Staff read (and receive training where necessary) the NOP specific to the area of training and agree to work to the written standard

Information flow

- Information flow is encouraged every morning during the morning briefing; information such as new risks, environmental factors and specific hazards relevant to the expected groups can be shared
- The use of email to communicate safety notices and changes to procedures are used as required

Session quality

- Staff are observed daily through “walking the floor”, this is a snap shot observation of a variety of sessions recorded in the delivery diary
- On a more formal basis it is the aim of VFC is to observe a significant proportion of at least one session for every member of the delivery team per year. These will be logged in the personnel file
- Performance and supervisions reviews

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Generic Risk Assessments

The following risk assessment are relevant across all activities and support the activity specific risk assessment and Normal Operating Procedures.

The vast amount of the general policies are pulled from the generic BF Adventure NOP, the following documentation re the VF specific risks

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • Communication • EAP and Absconding procedures – On and Off site • Equipment • First Aid • Inspections • Medication • Site safety and Terrain • Staff • Technical Advisors • weather

Communication

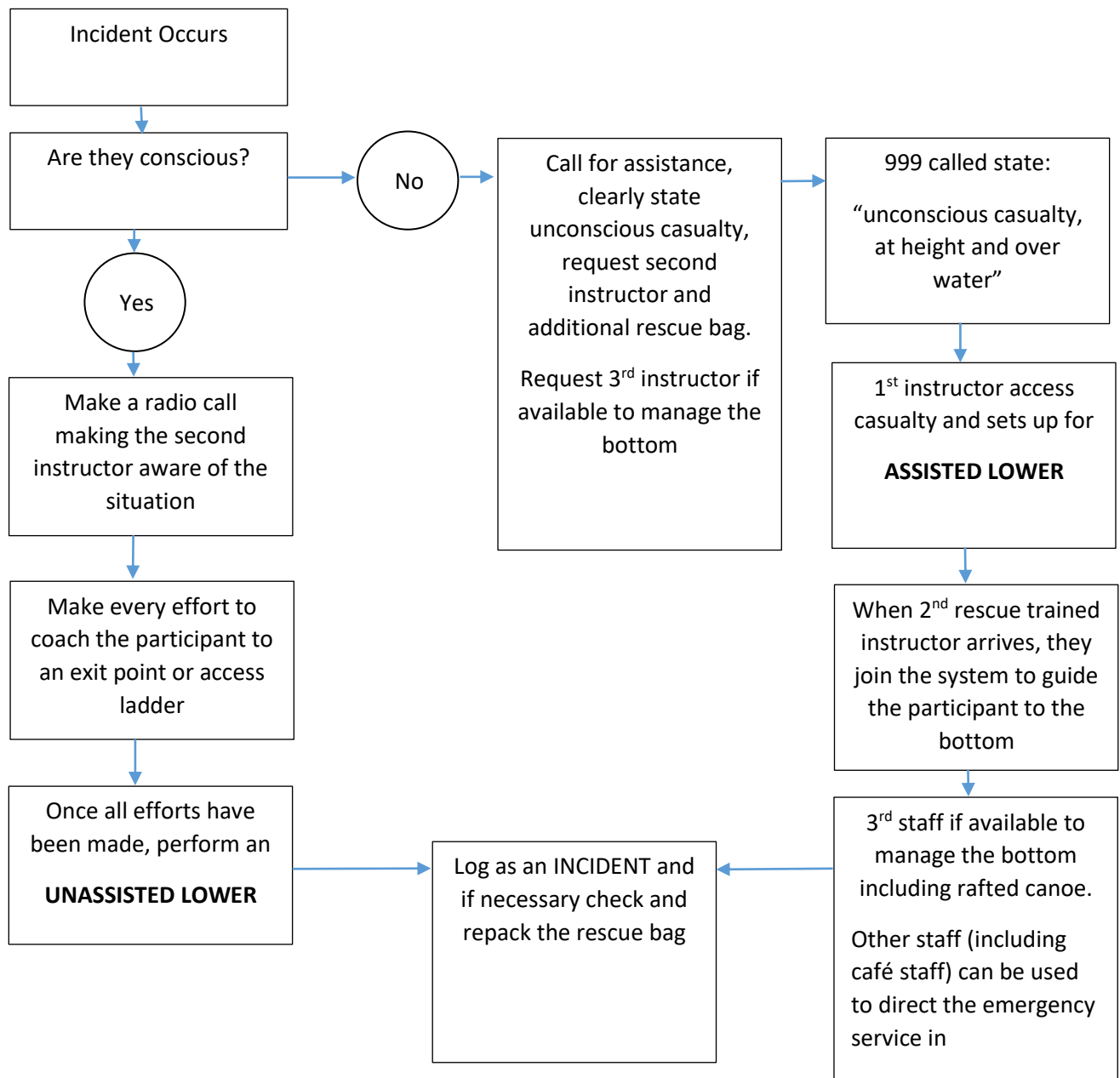
Risk	Who it effects	How is this controlled?
Injuries worsening through poor communication between staff on site	Staff Guests	<ul style="list-style-type: none"> • All staff to carry personal phone as a means of back up • Setting up done as a pair with line of sight • General VF chatter on specific channel 3
situation becoming worse as sensitive information communication relayed on a general frequency is heard by non-essential staff and participants or the channel is block due to general chatter delaying an emergency response	staff and guests	<ul style="list-style-type: none"> • Radios have allocated channels for communication: <ul style="list-style-type: none"> ○ Channel 1 – open channel with BF Adventure ○ Channel 3 – dedicated VF channel ○ Channel 4 – general communication of non-sensitive content ○ Channel 2 – incident, accident and emergency channel ○ Channel 5 – general chatter channel for long communications

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Emergency Action Plans (EAP)

All EAP from standard BF NOP are followed, these are the specific rescue protocols



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First Aid

As per BF NOP

Inspections

The following inspections at VFC take place

Inarguable course check	Completed upon construction	EN15567	Report and certificate issued
Parodical course inspections	Anunally (high Time)	EN15567	Annual reports
Operational course Inspections	3 months	Internal procedures	Internal reports created
Routine Visual course Check	Before every course use	Internal procedures	Internal app used, logged in excel
PPE initial inspections	Before PPe first use	PPE regs, WAHR, PEWER	Stored on gear log
PPE full check	6 month	PPE regs, WAHR, PEWER	Stored in gear log
PPE periodic check	3 months (cpmpleted with PPE full check every 6 months)	Internal procedures	Stored in gear log
PPE daily check			Visual check, not logged

Medication

Risk	Who it effects	How is this controlled?
People experiencing difficulty due to personal medication not being made available / pre-existing medical conditions causing injury	Staff Guests	<ul style="list-style-type: none"> Guests are required to complete a medical form prior to sessions and are expected to carry medication as part of the booking process Medical requirements briefed at the start of the session too Clear descriptions are outlined on the website as to what is expected physically and mentally to offer an informed choice Activity and challenge are to be suitable for the participant

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Administration of medication being inadequate due to lack of training leading to conditioning worsening	Guests and staff	<ul style="list-style-type: none">• VFC staff are not qualified to administer medication so users of the site need to take reasonable precautions while at VFC• In certain circumstances authorised by a manager, staff can administer medication if a medication sheet has been completed
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Site safety and terrain

Risk	Who it effects	How is this controlled?
Being hit by cars in the top car parks and inleading to impact injuries	Staff, guests, visitors	<ul style="list-style-type: none">• Speed signs placed in various locations
Unauthorised access by members of the public leading to theft, safeguarding incidents and customer discomfort	guests, staff	<ul style="list-style-type: none">• Gate is locked when staff are not on site, normally between 2200-0800• Signs placed on all access points to the site make people aware that its private property• See residential risk assessment for security measure during residential stays

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Staff

Risk	Who it effects	How is this controlled?
Guests and staff having a negative experience resulting in misadventure and physiological damage	Guests Staff	<ul style="list-style-type: none"> VFC will operate a "Challenge by Choice" policy which puts users in control of their adventure. Staff will receive basic training with this Staff will be monitored and feedback provided
Instructors accidentally becoming injured during activities	Staff	<ul style="list-style-type: none"> There will always be at least 2 staff on site so should an instructor become injured help can be raised by the instructor or the group.
Human Errors from staff leading to a range of risks from minor to critical failures of the safety system	All	<ul style="list-style-type: none"> Staff training is a minimum of 3 days Staff assessment is external Staff access with 2 people Staff will conduct buddy check when accessing Staff retrained every 2 years Staff refreshed with CPD day every year Staff rescue practice at least every 2 months Staff are multi activity trained to avoid prolonged repetitive tasks 1 hour break scheduled between VFC sessions VF session are guided tours to keep human interaction and avoid prolonged repetitive process based tasks (i.e. just the zip instructor for the whole morning) Duality and groups actively encouraged to fit own equipment during kitting up Kit check sites in place before the start of the course in the ADQ and also at the start of the Canoe quarry tour Rescue bag checked before each session Observation occur from managers / coordinator frequently

Lone working

Risk	Who it effects	How is this controlled?
Staff getting stuck / injured on the course and the lack of peer support leading to major injuries or death	Staff	<ul style="list-style-type: none"> Staff to access in pairs in the canoe quarry Staff can access the ADQ within line of sight of a trained instructor Rescue bag to be carried Radio to be carried

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Technical Advisors

A technical Advisor is someone with a recognised level of specific expertise, higher than is required for leading or supervising an activity at the level offered.

Skill assessment for TA

Criteria	requirement
Skills	<ul style="list-style-type: none"> • Rescue competent • VF competent • WAH competent
Knowledge	<ul style="list-style-type: none"> • Good level of knowledge with EN 15567 and EN 16869 • Excellent knowledge with a variety and up to date rescues • Excellent knowledge with mountaineering and climbing skills • Preventative systems to avoid rescue • Good up to date industry knowledge • Knowledge of law and legal frameworks
Experience	<ul style="list-style-type: none"> • Experience of training people in ropes courses • Experience of training people in climbing / mountains / via ferrata • Experience of teaching rescues
Qualifications	One or both of the following <ul style="list-style-type: none"> • ERCA trainer adventure park • MCI

Weather

Risk	Who it effects	How is this controlled?
Injuries worsening due to inappropriate clothes being worn	Staff Guests	<ul style="list-style-type: none"> • Groups sent out a suggested equipment list before arrival to VFC • Staff have access to uniform (coats, waterproof trousers) • Weather forecast obtained in the morning briefing and staff informed. Issues and activity concerns and or restrictions communicated in the morning briefing by the via ferrata manager
High winds causing branches to fall leading to impact injuries	Staff, guests	<ul style="list-style-type: none"> • Sessions called off in high wind by the via ferrata managers. Direction is a key factor as the course is usually very sheltered in most wind conditions, staff will base any decision based on how the prevailing condition are “actually” effecting the course and people ability to access the course safely.
Lightning strikes striking people leading to injuries and death	Staff, guests	<ul style="list-style-type: none"> • Observing a lightning strike activities are to cease for 20 minutes or until the “go ahead” had been authorised by a manager

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Cold and snowy conditions leading to hypothermia	Staff and guests	<ul style="list-style-type: none"> • Conditions below freezing points are to be considered individually based on the following circumstances: <ul style="list-style-type: none"> ○ Age of group ○ Group background ○ Activity in question ○ Subsequent impact on resources (frozen pipes, iced up roads, activity closures) ○ Equipment available ○ Learning outcomes
Hot weather leading to heat exhaustion and heat stroke	Staff and guests	<ul style="list-style-type: none"> • Water taps positioned around site • Shelters and group spaces available • Clients advised to wear sun tan lotion • Programme pitch and pace changed to match groups ability
FOG		<ul style="list-style-type: none"> • Staff to maintain line of sight with the group at all times • In level 2 and 3 supervision areas, if staff cannot see the group, they must position themselves with the groups to maintain line of sight • When walking around the top of the quarries in fog, staff must be attached to a safety system at all times • Zip operation where the instructor cannot see the exit ramp can only happen if there is a second member of staff at the exit ramp with a radio to ensure the zip is clear.

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The following procedures are run alongside the general risk assessment located in section 3 of this folder

Normal Operating Procedures

- A quick list of must do behaviours that are present during a session

Session Plan

- This details the framework in which the risk assessment and NOP are produced from. All sessions should operate within the framework

Risk Assessment

- This details the process of how risk is managed on sessions

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Via Ferrata Adventure Zone and classic tour

Location	VFC, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe quarry		
Assessed by:	Tony Baker	Date	28/2/20
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment	
Experience Training and Qualifications	<ul style="list-style-type: none"> In house trained Externally assessed by MCI and or ERCA trainer
Ratios:	<ul style="list-style-type: none"> 1:16 in adventure zone (level 1 and 2 supervision) 1:30 (level 3 supervision)
Safety factors	<ul style="list-style-type: none"> PPE- checked and fitted by staff User restrictions: <ul style="list-style-type: none"> Age – 8+ (10 in the classic tour pending competence check in adventure zones) Height – min 113 cm Weight max – 18 stone Briefing and competence is mandatory – see lesson plan Weather: <ul style="list-style-type: none"> FOG – staff must be able to have lone of sight with users at all times Wind – cancelled in winds over force 5, awareness of impact on zip with easterly winds
Operational Factors	<ul style="list-style-type: none"> Daily checks before use – logged in VFC diary Maintain PMU (position of maximum usefulness) Check medical information Check acceptance of risk and wavers
Accessible Factors	<ul style="list-style-type: none">
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue	
Safety equipment	<ul style="list-style-type: none"> FAK, Radio, first aid kit Rescue bag (checked before use) Cows tails Safety hook tool Work position system WAH harnesses and helmet (work at height) Uniform Zip trolley

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Kit for Participants	<ul style="list-style-type: none"> • Edelrid radius comp harness • helmet • lanyard and safety hook • Gloves • Lanyard/pouch for camera
Set up notes	<ul style="list-style-type: none"> • staff to carry (or position, see risk assessment) rescue bag • set up access lines • print off course information 1 hr before

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • safe experience • fun and challenge
Time	<ul style="list-style-type: none"> • adventure zone 1.5 hours • adventure zone and classic tour 2.5 – 3 hours
Equipment needed	<ul style="list-style-type: none"> • see equipment and venue
Set up notes	<ul style="list-style-type: none"> • see equipment and venue
Briefing	<ul style="list-style-type: none"> • Café brief <ul style="list-style-type: none"> ○ Intro <ul style="list-style-type: none"> ▪ Name and identify yourself as their instructor ▪ Check activity ▪ Check paperwork (tick in) ○ hospitality <ul style="list-style-type: none"> ▪ Clothing, footwear and carriables ▪ Toilet ▪ Boundaries ▪ Photo ▪ smoking ○ Medical and covid – back, asthma, epilepsy and heart conditions ○ Company – <ul style="list-style-type: none"> ▪ thanks, you are supporting BFA ▪ bfa supports at risk young people ▪ you may see these YP round site, watch language etc • Kit store brief <ul style="list-style-type: none"> ○ Risks – have been significantly reduced but are not eliminated ○ Kit adjustments – only by instructors ○ Fitting of equipment • Training platform <ul style="list-style-type: none"> ○ CBC and opt out and refund points ○ Parental supervision- parents in centre and able to assist

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	<ul style="list-style-type: none"> ○ Operating brief: <ul style="list-style-type: none"> ▪ Lead with safety hook – keep high and demonstrate a bad? fall ▪ Show how to pass “zaza’s” and operate hook ▪ Explain junctions ▪ Listen and follow signs ▪ How to raise help – instructor names ▪ Self help ▪ Lean and dangles ▪ 1 per crossing unless otherwise stated ● Traverse to oak tree <ul style="list-style-type: none"> ○ Same as operations, staff to: <ul style="list-style-type: none"> ▪ Observe ▪ Question ▪ Ask for demos (lean, dangle, “INSTRUCTOR”) ○ Tips and techniques <ul style="list-style-type: none"> ▪ 3 points of contact ▪ Long arms ▪ Rest points ▪ use of lanyard ○ Rest points – make best use of
Main delivery	<ul style="list-style-type: none"> • 45 – in pairs check and set up the VF • 30 – meet and greet, fit equipment make way to training area • 30 – briefing, training and make way to oak tree • 30 – make way from oak tree to café over the suspension bridge • 5 - After the adventure zone assess competence, complete the skills checklist with the group • 5- Have a small break before going to classic tour • 60 -Allow the group appropriate space on classic tour, re check PPE • 30 – finish with zips and make way back to café
Summary	<ul style="list-style-type: none"> • Gain feedback • Congratulate all users • Promote other products
Pack away	<ul style="list-style-type: none"> • Unpack rescue bags to air • Store all equipment, separate damaged equipment • Log, upload and store paperwork • Feedback in the diary notes for tomorrow and check staffing and tomorrows sessions
Other notes	<ul style="list-style-type: none"> •

Risk Assessment for VFC adventure zone and classic tour

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Hazards	<ul style="list-style-type: none"> • Anchors • Wire • Staples • Postman's walk • Top cliff safety systems • environment • falling • PPE • Users • Staff • Rescues • Water • Zip • Bridge • Paths • Cliff edges • Café • Wildlife • Vertical access • Rocks and quarry faces • Unauthorised access • Allergic reactions • Weather
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Anchor points

M16 A4 studdintg set into granite rock with Rawl kemfix II codue + brackets zaza2. Set into anchor with a minimum depth of 125mm,

brackets individually ID "A XX"




Install depth	Min 125mm
Hole diameter	18mm
Chemical anchor	R-CAS-V-16
Torque setting	80NM
material	A4

Anchor points breaking resulting in significant to falls from height and the weight of the system on the 2

- M16 threads have a **sheer pull, recommended** load when imbedded at **the minimum depth** of 100mm for A4 steel of 25.2KN
- M16 threads have a **tension pull, recommended** load of 24KN at the **minimum depth** of 100mm for A4 steel
- All points pull tested to 800KG
- Anchor points set in at the minimum depth of 100mm

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adjacent anchors. Possible multiple participant injuries and the safety cables move significantly		<ul style="list-style-type: none"> • Install studs have a visual blue line marker to identify when correct instillation depth is reached • Codue + instillation instruction followed • Daily pre course checks • Operational checks at last every 3 months • Annual inspection 
Over loading leading to anchors breaking resulting in significant falls from height and the weight of the system on the 2 adjacent anchors. Possible multiple participant injuries and the safety cables move significantly		<ul style="list-style-type: none"> • Participants max of 3 between anchor bolts for the purpose of rescue, normal operation 1 x adult with 1 x child • Bolts spaced 5-10 meters apart (15 M is max) • Sag to span set at 1:15 • Estimated weight on each anchor based on 3 x people weighing 80KG (240KG), hanging from the safety cable is 600KG KG. figures are estimated as the anchors heights, sag and span vary depending in the route and the instillation area. (See construction manual for more details) • Anchors tested beyond this limit to establish a secure instillation. The test limit is above the estimated maximum load of 600KG (see above) but far less than the design load at the recommendation of the manufacture (RAWL) • Anchors are connected to adjacent wire to add redundancy to the system (with the exception of the end anchors) • Weight limit set to 115 KG (18 Stone) • To avoid overloading any single anchor point, rescue practice must not involve 2 rescues on adjacent wire sharing the same anchor point.
Nuts coming loose		<ul style="list-style-type: none"> • Nyloc nuts to be used and tightened to 80NM • Tighten using torque wrench • Visual inspection daily and tighten as necessary
Resin being faulty / installed incorrectly		<ul style="list-style-type: none"> • Product info followed • Load test on safety critical points to prevent falls from over 1 M • Anchor points (AP) numbered for easy reference

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		<ul style="list-style-type: none"> • Daily inspection (not logged), and faults or concerns reported • Termly inspection (internal logged) • Annual inspection by external company • Sample instillation evidence by photos of drilling, clearing (blow and brush) the hole, depth of hole can be located in the build book
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Safety cables 12mm wire rope, installed as per code + instruction to brackets using 3 x 12 mm wire rope grips or 2 x 12 mm ZAZA jaws. Wires individually ID with serial number		
Breaking resulting in critical failure of safety system possibly resulting in a fatal fall from height		<ul style="list-style-type: none"> • 12mm wire rope used with 7.12 TONNT Minimum breaking load • All points checked daily by staff for signs of wear and vandalism • Operational check at least every 3 months • 12 months inspection by engineer
Abrasion on rock resulting in weak points and breakages leading to possible fatal falls from height		<ul style="list-style-type: none"> • Extra brackets used on corners to bring the wire rope away from edges where possible • The course installed to limit potential wear points • Course checked daily • Full internal inspection every 3 months • Full annual inspection • Blue piping used on areas of high abrasion to protect the cable
Cutting hands on wire rope		<ul style="list-style-type: none"> • Risk is small • Clients advised of risks of holding onto the wire rope • Gloves to be worn
Incorrect attachment to the safety system resulting in compromised safety possibly resulting in significant injury or death	participants	<ul style="list-style-type: none"> • Coudou pro system used which is a category E system as defined by the UK ropes course guide which mean that once attached, participants need a tool to remove themselves from the system • Participants should be attached to the system by a trained instructor • Participants can remove themselves from the system but a system should be in place to prevent re attachment to the system where a trained instructor is not in a position to check the attachment. <ul style="list-style-type: none"> ○ Adventure quarry – this is manned by a member of staff who will supervise the exit and prevent re entry. This is done through the placement of a safety hook on the system on the wire that required a tool for its removal ○ Canoe quarry – the exit is at the entrance to the zip wire, this is another locked exit requiring a

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		<p>tool which the staff have to exit. This is overseen by the zip member of staff.</p> <ul style="list-style-type: none"> Traditional cows tails and lanyards can also be used. Care should be taken to select an appropriate system to ensure compatibility.
Rusting on wire rope leading to breakages and potential fatal falls from height		<ul style="list-style-type: none"> Daily usage checks 6 week logged check 12 months inspection Replace as necessary Wire installed in 25M sections
Incorrect cable height leading to injuries sustained during a fall onto the system and impact with other users.		<p>The adventure zone and classic tour will have a safety system at a height above the users attachment point as illustrated below. People under 40KG will not generate enough force to deploy the energy absorber. As such no one will require an energy absorber as all lanyards are above attachment point height. See diagram below from extract of petzl JOKO Y</p> <p>C. Fall factor Facteur de chute</p>  <ul style="list-style-type: none"> Mini wire height set at 107 CM Max height is 140 too allow the smallest 0.4 centile 8 yr old (113cm) to reach the safety cable Routes below 3 meters should be designed so minimise the impact of a ground impact
Falling onto the safety cable and sliding down to the natural low point. Possible impacting other users and possible bumps and bruises from	Participants	<ul style="list-style-type: none"> Users set at 1 per wire rope unless supervising children in which one can be supervised Sag to span set to avoid minimum sliding The angle of climb is set low Where there is a chance of sliding, coudou pro stops will be used or additional anchors set in place to remove the sag and the chance of sliding

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impacting the rock or staples		
High fall factor falls leading to injury to participants and critical damage to equipment	Participants	<ul style="list-style-type: none"> The course is designed to operate below the safety cable to facilitate very low fall factors Participants need briefing about this risk

Stapels

16 mm factory made galvanised rebar stapels 1000mm long set 75mm (minimum install depth) into granite from Deveron metals

Stapels breaking and coming loose resulting in a fall onto the safety system and impact injuries at height		<ul style="list-style-type: none"> 16 mm galvanised rebar used and used wildly in other via ferratas Daily observation Operational check at least every 3 months 12 month inspection Not to be used as a primary safety system as not tested Stapels secured using Rawl Chemical anchors which has a high strength rating Positioning and resting lines can be attached to these stapels Stapels inserted min of 75mm into rock minimum
Stapels rusting leading to structural failure		<ul style="list-style-type: none"> Rebar is galvanised
Stapels cutting hands		<ul style="list-style-type: none"> Risk is moderate Gloves must be used Clients advised at time of booking of risks of small cuts, abrasions and sores
Sores and slipping off stapels		<ul style="list-style-type: none"> Good shoes / hiking boots / wellies to be worn Participants made aware at time of booking and during registration process

Postmans walk

12mm galvanised wire M16 A4 studs capsule R-CAS-V-16 (SEE ANCORS) set, to A4 M16 ring nuts. Swaged at one end and wire rope gripped at the other to allow for on going adjustment

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Slipping on wire rope resulting in impact injuries	All users	<ul style="list-style-type: none"> Wire rope to be set at a sag to span of 1:10 to minimise the angle of the wire rope to reduce the chance of slipping Good shoes to be worn
Equipment failure due to overloading and or poor material choice	All users	<ul style="list-style-type: none"> M16 anchor stud (see anchor instillation) Wire rope is suitable (see construction for properties) 1 x adult and 1 x child on the element at a time
Falling due to in balance	All users	<ul style="list-style-type: none"> Participants to use the safety cable as a hand rail to aid balance No tight rope walking allowed

Suspension bridge

Coudou pro zip 5 installed at either end of the suspension bridge safety cable and supporting

(note: Safety cable - VIA plates off the suspension bridge vertical wires which are suspend from the load baring suspension cables)



Overloading the attaching component leading to failure, deformity and possibly a fall from height

All users

- Anchor is a M16 A4 stud, chemically anchored at a minimum depth of 125mm using RAWL R-CAS-V-16, see anchors for more information
- Attachment to the stud is an M16 A4 eye nut
- 2 tonne lift shackle attaches the eye nut to the zip 5 plate
- The zip 5 can span a 150 m gap with one person
- The zip 5 alone can support 25KN
- Overall weight limit of the suspension bridge is set by High Time TC and has been rated at 10 people
- VFC has chosen to operate with a maximum of 10 clients, BF limits to 5 people on the bridge at a time to facilitate smooth running of the session and to make action in the event of a rescue simpler
- Additional VIA plates are suspended along each of the vertical load baring cables which share the load of the participants and the weight of the bridge

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Restraint safety system set at top of cliffs to prevent a fall from height using 12mm wire rope, junctions and vi plates

Zip wire loop – finishing the zip and coming off the system leading to falls from height and reattaching incorrectly	Participants	The end of the zip wire connects back into the top system using a junction resulting in a continue attachment scenario
Accidental re-attaching to the system post zip wire	Participants	The exit is controlled by the instructor at the zip launch end. No one can fully exit or enter the system without the instructors physical intervention
Adventure quarry safety system	participants	The walk along the exposed cliff edge is protected by a restraint system preventing a fall from height

Environmental factors

Heat related injuries		<ul style="list-style-type: none"> Participants advised to drink plenty of water on hot days. Drinks can be purchased in the café and water can be left in locations identified by staff but not carried on the course Participants to wear t shirts
People slipping off when the course is wet		<ul style="list-style-type: none"> Good shoes essential Participants advised that the course could be slippery where appropriate Safety system in place to prevent a fall from height Helmet worn to protect the head during a slip
People getting cold or wet during the course		<ul style="list-style-type: none"> Participants advised to wear warm clothes / coats as long as they don't interfere with the fit of the harnesses Information on what to bring will be emailed out on booking a course
High wind effecting the natural usage of the course		<ul style="list-style-type: none"> Session will be stopped in Sessions called off in high winds. Direction is a key factor as the course is usually very sheltered in most wind conditions, staff will base any decision based on how the prevailing conditions are "actually" effecting the course and people ability to access the course safely. The zip and Burma have different operating conditions, see the specific risk assessment

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Normal Operating Procedures

Falling		
Participants falling leading to impact injuries and or death	Participants	<ul style="list-style-type: none"> The course is designed to have the participants attached to a safety cable from start to finish. Exiting the system can only be done by completing the course, accessing a designated exit point located in a safe location or removal from the system using a specialist tool only held by instructors. Participants are checked by a trained member of staff at the point off attachment Harness chosen have automatic locking buckles so if clients do adjust the harnesses they can not be rethreaded incorrectly Harnesses checked at start and at intervention points these are: <ul style="list-style-type: none"> Start of classic tour Start of zip wire Reputable system of safety used Pull tests carried out on all anchors at start of build Daily and termly and annual inspections carried out Training from staff and competence checked Participants cannot reattach themselves as the course will be secured using a safety hook over the wire at all entrances and exits which can only be operated by staff
Inversions in a harness leading to discomfort and the possibility of falling "out the harness"	Participants	<ul style="list-style-type: none"> Full body harness have been chosen to prevent this

PPE		
PPE failing leading to falls from height	Participants	<ul style="list-style-type: none"> Staff trained on how to fit and check equipment at the point of training. This is an assessed criteria PPE checked visually by staff before each use PPE checked every 3 months by a competent and trained member of staff, these will be logged

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Normal Operating Procedures

		<ul style="list-style-type: none"> All fault PPE will be placed in the second opinion bin were a senior member of staff will decide the next course of action Participants briefed not to alter or adjust equipment Manufacturers recommendations will be followed
Incorrect storage leading to failure	Participants	<ul style="list-style-type: none"> PPE stored in dedicated shed away from chemicals, UV light Equipment stored on purpose made racks to allow air flow for drying Low level heat source in constant use to eliminate damp from the storage shed
Incorrect fitting leading to falls from height	Participants	<ul style="list-style-type: none"> 2 sizes of harness are available Staff trained on how to fit these

Users		
Landing on other users resulting in impact injuries		<p>There are 3 places where falling from the course may result in an impact with the users below.</p> <ul style="list-style-type: none"> Signs are placed to warn against this and to only proceed when the top route is clear This is a briefing criteria and competence checked before moving to the classic tour
Frustration from bottle necks leading to overloading of elements		<ul style="list-style-type: none"> Staff trained to “stack” participants using their best judgement with the most confident people at the front of the group
Not understanding training leading to dangerous occurrences		<ul style="list-style-type: none"> The briefing is tactile, pictorial and practical allowing users to take on information and for staff to observe competence
Children not being supervised correctly getting into distress and stuck.		<ul style="list-style-type: none"> Children aged under 18 years old must be accompanied by an adult. Person aged 18 or above who is either the parent/legal guardian or has the authority of the parent/legal guardian of the child participant(s).VFA will set in place adequate training to accompany the child participant(s) and is in a position to see the child participant(s) and intervene verbally

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Normal Operating Procedures

		<ul style="list-style-type: none"> 8-13 yrs 1 adult to 2 children. Adult to be placed in the centre of the children to enable support to be provided to both children 14-18 years – Adult must be on site but is not needed to take place on the tour Children who fit into the edelrid comp 2 harnesses to use longer lanyards (70cm TBC) The training zone is for children 10 years and over. They can book on the full classic tour if competence and confidence is apparent then the instructor can permit 8yrs + to participate in the classic tour
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Staff		
Skill fade leading to mistakes		<ul style="list-style-type: none"> Staff need to retrain every 3 years Rescue practice at least every 4 weeks or prior to the first session of the day if this period has lapsed
Staff accessing the course poorly or slowly and becoming ineffective in an emergency		<ul style="list-style-type: none"> Staff to access on cows tails Staff to be trained and able to use an adjustable work positioning system Staff trained in vertical access using a petzl ASAP Staff must at the point of assessment be confident to access all parts of the course
Staff practicing poor skills leading to incorrect behaviours and practices		<ul style="list-style-type: none"> Training will be at least 2 days internally looking at personal competence, briefing, equipment, customer care, NOP and indoor rescue practice Assessment will be 2 days focusing on rescues, customer training / supervision and operation Assessments for rescues carried out by MIA Assessments for operation and customer training carried out by trainers approved by MIA and Centre Manager
Poor positioning leading to lack of line of sight and not knowing that participants are in distress		<ul style="list-style-type: none"> Staff trained on the position of maximum usefulness (PMU). This will vary depending on the groups and location. Suggested locations to keep a line of sight are: <ul style="list-style-type: none"> Adventure zone – on the floor up to the oak tree, the new island on the corner by the Burma bridge Classic tour – the island, ladder ledge and the zip wire and top of quarry
Staff not identifiable / visible leading to a delay in		<ul style="list-style-type: none"> Staff uniform is orange Rescue bags carried by staff are bright colours

Via Ferrata

Normal Operating Procedures

participants summoning help		
Having an accident while accessing alone		<ul style="list-style-type: none"> • Staff to always access a quarry in pairs • Staff to each carry a radio and personal mobile phone

Rescues		
See training manual for the rescues		
Poor rescues leading to fall from height		<ul style="list-style-type: none"> • 2 rope system used, belay and ASAP line • Staff trained and rescue practiced regularly • All rescues are lower rescues, this is where the staff operating the safety system stays at the top. • In the event of an unconscious casualty, a competent member of staff can be used during the lower to support the casualty. Equipment used for all rescues are rated for 2 people
Lack of available staff to facilitate a full rescue leading to delays and injuries worsening		<ul style="list-style-type: none"> • 2 staff must always be on site and rescue trained during VFC operations • Should there be an unconscious incident and there is no one on site to act as the competent assistant during the lower then the emergency services have agreed to be involved as standard practice
Slow response to participants in distress leading to injuries worsening		<ul style="list-style-type: none"> • Participants trained to avoid rescues during the training period by: <ul style="list-style-type: none"> ○ Being taught to take breaks at the rest points ○ Being shown and taught and the demonstrating competence in leaning and hanging in their harness ○ Participants demonstrate how to pull themselves up from a hanging position ○ Participants encouraged to peer support • Rescue bags either carried or placed in strategic locations to facilitate a quick rescue. These must at least be in the quarry (oak tree or bottom of zip wire) if groups are operating in the respective quarry • Training time to access the participant in 5 minutes from the alarm being raised • Participants brief and demonstrate competence in raising assistance by shouting staff and waving

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Normal Operating Procedures

Staff injuries during rescue		<ul style="list-style-type: none"> User weight limit set at 18 stones to protect staff from manual handling injuries during a rescue Staff to carry work positioning system to create a stable stance. These can be attached to staples as long as their cows tails stay secured to the main safety cable
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Unauthorised access		
People accessing the course with out supervision either during empty activity slots or when the centre is closed		<ul style="list-style-type: none"> The centre is remote, people would have to make a purposeful trespass to access the course Signs placed on entrance gates to the site Signs places on access gates to the activity locations Signs placed on possible access points to the course Adventure zone has locked gate at the bottom and 2 gates with signs at the top
Core clients access the course as a form of control or in crisis		<ul style="list-style-type: none"> Staff to supervise clients closely and select activities in the ADQ carefully matching its suitability to the clients needs

Unauthorised access		
Allergic reation to the latex in gloves	All users	<ul style="list-style-type: none"> Adult gloves are made bit Nitrile instead of latex Junior gloves contain latex as we cannot source gloves that do not contain latex. Disclaimer added to the website and booking information
		<ul style="list-style-type: none">

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Normal Operating Procedures

Zip Tour operating procedures

Location	VFC, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe quarry		
Assessed by:	Tony Baker	Date	28/2/20
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment	
Experience Training and Qualifications	<ul style="list-style-type: none"> In house trained Externally assessed by MCI and or ERCA trainer
Ratios:	<ul style="list-style-type: none"> 1:16 Max of 32 on the zip course + 16 max on the training course (total 48 max)
Safety factors	<ul style="list-style-type: none"> PPE- checked and fitted by staff User restrictions: <ul style="list-style-type: none"> Age – 8+ more detail... Height – min TBC Weight max – 18 stone Briefing and competence is mandatory – see lesson plan Weather: <ul style="list-style-type: none"> FOG – staff must be able to have line of sight with users at all times Wind – cancelled in winds over force 5, awareness of impact on zip with strong winds
Operational Factors	<ul style="list-style-type: none"> Daily checks before use – logged in VFC diary Maintain PMU (position of maximum usefulness) Check medical information Check acceptance of risk and wavers
Accessible Factors	<ul style="list-style-type: none"> Adaptions can be made for people with hearing impairments, some physical disabilities Visually impaired people, people with learning difficulties depending on the severity may not be able to complete the course. An individual risk assessment should take place people unable to walk (required for safe landings) or hold the handles (required for directional control which leads to a safe landing) will not be allowed to take part
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue	
Safety equipment	<ul style="list-style-type: none"> ZT rescue bag Access harness, fall arrest lanyards, work position lanyard, helmet, safety hook key
Kit for Participants	<ul style="list-style-type: none"> Petzl swan harness, helmet, safety hook and lanyard, connect adjust and pully gloves
Set up notes	<ul style="list-style-type: none"> Pre course check and log Visual check of all PPE

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Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • Safety of all participants • Fun adventure
Time	<ul style="list-style-type: none"> • 1.5 hours
Equipment needed	<ul style="list-style-type: none"> • see equipment and venue
Set up notes	<ul style="list-style-type: none"> • see equipment and venue
Briefing	<ul style="list-style-type: none"> • NAMES completed at the reception area • Toilet – offer people the change to visit the bathroom • Pockets and valuables – ensure loose items are stowed away or removed • Clothing – ensure hair, tassles, jewellery are all suitable for removed
Main delivery	<ul style="list-style-type: none"> • Part 1 – kitting up and practice course 30 minutes <ul style="list-style-type: none"> ○ Skill checker • Part 2- first go round the quarry, 30 minutes • Part 3- free time 15 • Part 4 -dekit, feedback 15 minutes
Summary	<ul style="list-style-type: none"> • Ask how it went • Feecabck and promotions on social media • Check the kit and ready for next session / storage
Pack away	<ul style="list-style-type: none"> •
Other notes	<ul style="list-style-type: none"> •

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Normal Operating Procedures

Risk Assessment for Zip Tour

Hazards	<ul style="list-style-type: none"> • Zip system • Zip wires 1,2 and 3 • Zip training course • Anchors and safety systems between zips • Cliffs • Other users (items being dropped) • weather • Zip 3 cage • Staff • Stays (tipping and head) • Zippers (line of sight) + self rescues • PPE • Trees
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Zip system (connect adjust, track guide with kong arvo adventure 80cm slings with safety hook

Incorrect set up		<ul style="list-style-type: none"> • Staff trained and assessed in correct use • System checked and set up in the training area
Client mis use including accidental tampering		<ul style="list-style-type: none"> • System backed up by coudou pro safety hook which is a category E system and tamper proof • Connect adjust once set does not need adjusting • Connect adjust will be tied off using an over hand knot to prevent further adjustment making it too long • Easy stow point on harness when carrying • Positive hand placements on the trolley to avoid accidental knocking of the connect adjust
Loading the trolley with a too short back up system		<ul style="list-style-type: none"> • Connect adjust maximum setting is shorter than the kong sling meaning this cannot happen
Ease of use		<ul style="list-style-type: none"> • Coudou safety hook requires minimum operation once installed on the wire • Petzl track is designed to be easy to operate • Young children may require support from parents – see zippers and for more info on parental supervision
grabbing the wire		<ul style="list-style-type: none"> • Gloves issued to offer some protection • Trolleys have handles to offer a positive grip position • Training are used to teach correct technique and also assess competence • Skill checker used to capture client confirmation of training

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Normal Operating Procedures

		<ul style="list-style-type: none"> Connect adjust set so wire a stretch. The trolley on the ground is set that the handle is at chin height
Child operation – unable to follow instructions, learn, make responsible decisions and not getting to the end / be blown back in head winds leading to distress and assistance		<ul style="list-style-type: none"> Young children may require support from parents. 8-14 year olds need to have their system set up visually checked by some aged over 14 years. This includes ensuring the trolley is on the wire and the back up hook is attached on top of the trolley at the back. This can be done from a distance of up to 10 meters away Rescue system set in place to enable support from an instructor to pull a YP to the end of the system Training course set up so YP can be risk assessed Refund point set up between the training course and zip 1 so the instructor or parents can stop the activity without the pressure of a financial commitment
Trolley malfunction (rescue)		<ul style="list-style-type: none"> Rescue trolley accessible to staff stationed at the VF shed. This includes a hoisting system (petzl JAG or chain hoist) attached to an ISC zippy. This will put their zip trolley onto a new system and retain their existing couldou pro safety hook
Hair / clothing in trolley		<ul style="list-style-type: none"> Hair tied back Sting, tassles, jewleys that may get caught is removed or made safe before departure Trolley set above head height to reduce the chance of entrapment
Trolley inversion		<ul style="list-style-type: none"> No jumping Handles to be used at all times Zipers trained and assessed for competence on the training course in the points above Trolleys checked daily, 3 month and 6 month Back up system in place in case of a critical failure Rescue system in place, see trolley maifunction.
Pole / rock / wall impact at the end of the zip		<ul style="list-style-type: none"> Landing ramp in place as passive breaking system Stop in place at least 1.5 metes from pole / rock / wall to prevent a head on collison Training course set up to practice landings Correct technique taught to land feet first and walking Trolley with handles purchased to hold a forward facing position Only people deemed competent will be allowed past the training course
Jumping at the point of take off damaging trolleys and		<ul style="list-style-type: none"> Launch ramps all have steps / ramps to allow people off all heights the opportunity to stat the zip with a loaded system People taught not to jump and how to correctly launch Practice course built

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Normal Operating Procedures

getting them stuck	<ul style="list-style-type: none"> Competence must be demonstrated before zip commences A redundant system (safety hook) is in place in case of trolley failure Rescue system set up to recover stuck participant
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Zip wire 1,2 and 3		
Incorrect instillation		<ul style="list-style-type: none"> High time contracted to build the training course and all the zips Type A inspection to check build quality and operation
Incorrect landing		<ul style="list-style-type: none"> Handle used to keep feet forwards Training course used to practice at low levels. Lanyard length set so participants weight is on the lanyard as opposed to the handles Ramps on all exits to provide a gentle landing
Incorrect take off		<ul style="list-style-type: none"> training course use to show zippers correct and safe operation as well as assess competence Tight lanyards at launch ensure a smooth and hassle free departure No jumping – this may damage wire and trolley and could lead to trolley inversion and cross loading
Falling before zip 1		<ul style="list-style-type: none"> Safety system in place using the coudou pro to gain access to the course Attachment to the course for zippers first time is supervised
Incorrect attachment to zip 1 leading to difficulty around the rest of the course		<ul style="list-style-type: none"> Staff based between zip 1 left and right to check attachment Staff supervise people first attachment to zip 1
Client cross clocking on entrance to zip 1		<ul style="list-style-type: none"> Zippers for zip 1 have a different entrance for the left and right zip
Zip 1 nervous people		<ul style="list-style-type: none"> Staff at zip one launch site to offer support Different routes in means that people on zip 1 right do not hold up people on zip 1 left Training course set up to allow people to practice Refund point issued after training course so people who after training, believe the challenge will be too much

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Normal Operating Procedures

Colliding with the previous zipper as they have not vacated the landing area		<ul style="list-style-type: none"> • Zippers training and assessed to ensure that the previous participant is passed the via 5 plate. This provides a safe margin or error as they would have had to pass the stop and jaw and the via 5 plate so it will be very difficult to reenter the impact zone • Zips 1 and 2 have been engineered so that the exit line do not cross the path of the zippers on the other line • Zip cage has the possibility of an impact as the zipper on the right line needs to pass the zip path of the person on the left line. This will have a separate briefing after the training course and a pectoral sign in place at the launch of zip 3
Impacting the poles on finishing zip		<ul style="list-style-type: none"> • Passive break system - the landing ramp • Stop and jaw attached 1.5 M from the wall as back up to prevent a pole / back wall impact • Training course allows people to practice and be assessed as competent before going onto the main course
Collisions or interactions mid zip on zippers on lines left and right		<ul style="list-style-type: none"> • Lines set at least 2 meters apart so this cannot happen
Tripping over wires and stays while moving around course		<ul style="list-style-type: none"> • Blue pipe in place on trip hazards • Signs in place to advise people of trip hazards

Zip training course		
Falling from platforms		<ul style="list-style-type: none"> • Max foot height is 1.5 meters • Handles in place to allow for ease of attachment and to provide confidence at height • Platforms are wide enough for a comfortable stance • Stops are placed on the vertical access wire mid way up to reduce the chance of a ground impact. These must be used by zippers climbing the poles
Difficult attaching system		<ul style="list-style-type: none"> • Coudou safety hook requires minimum operation once installed on the wire • Petzl track is designed to be easy to operate • Young children may require support from parents – see zippers and for more info on parental supervision • Staff on hand to support in the training area and can access the platform using separate staples

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Normal Operating Procedures

Incorrect instillation including platforms, poles wires, and stays		<ul style="list-style-type: none"> • High time contracted to build the training course and all the zips • Type A inspection to check build quality and operation
People being hit by zippers while observing		<ul style="list-style-type: none"> • Participants / learners on the training course are set back at least 2 meters from the zip wire
Poor observation of teaching		<ul style="list-style-type: none"> • Platform large enough for staff to attach facing the training wire so participants can easily see what's going on leading to better teaching • Participants safety wire set between 2-3 metres away so observations are easy • Pictorial signs used at key points around the training course
Impacting the poles on finishing zip		<ul style="list-style-type: none"> • Passive break system in the landing ramp • Stop and jaw attached 1.5 M from the wall as back up
Impacting zippers in the landing area		<ul style="list-style-type: none"> • Zippers training and assessed to ensure that the previous participant is passed the via 5 plate. This provides a safe margin or error as they would have had to pass the stop and jaw and the via 5 plate so it will be very difficult to reenter the impact zone • The course is set up to be low and slow so impacts here during training will be minimal
		<ul style="list-style-type: none"> •

Anchors and safety systems between ips		
Zip anchors		<ul style="list-style-type: none"> • Set up by high time as part of their instillation
Tree anchors (restraint systems)		<p>Trees used for restraint anchors are on the top of the quarry and participants are at least 5 meters from the edge. There is no risk of fall and the tree anchors are simply to keep participants attached to the wire rope so the safety hook is not incorrectly installed for the next zip.</p> <p>Because of this, we have used trees that allow for a place to hang an anchor and will never be in a position to hold a fall from height</p> <ul style="list-style-type: none"> • Trees are visually checked daily • Anchors hanging from trees will be tamper proof and will either be:

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Normal Operating Procedures

		<ul style="list-style-type: none"> Attached using a M16 stainless thread through the tree with nut and washers either end Hung using a short wire rope sling and attached using a mallian rapid
Rock anchors (restraint and fall arrest system)		<ul style="list-style-type: none">
All anchors		<ul style="list-style-type: none"> Daily inspections in course opening check 3 month inspections Type A inspection on opening Type C inspection annually

cliffs		
Falling off		<ul style="list-style-type: none"> Category E safety system used which is tamper proof All non instructor areas are clearly sign posted and have suitable fence
Rocks and stone falling		<ul style="list-style-type: none"> Daily checks in place looking for obvious signs of rock fall Temple run section has a maintained path to ensure people below on VF tours have an experience with no rock fall People operating below on the VF tours wear helmets Landing ramp on zip 2 has netting to retain rocks and also retaining wall at the bottom to catch stray rocks Temple run path is netted to prevent stone fall
Temple run boulders		<p>The temple run is a pile of large but well established boulders. Disturbing these boulders could result in a catastrophic rock fall leading to very serious injury, critical course damage and fatalities.</p> <ul style="list-style-type: none"> Anchors used are unquestionably sound

Other users		
		<ul style="list-style-type: none">
Unauthorised access		<ul style="list-style-type: none"> Remote site limits potential access Access gate with signs at: <ul style="list-style-type: none"> VF store entrance Top of adventure quarry ADQ gate Access track at staff living area Temple run entrance bottom and top Zip 3 landing cage

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Normal Operating Procedures

		<ul style="list-style-type: none"> zip 3 landing cage will have a chain across it Further controls for start of zip tour??? Zip 1 entrance blocked off by placing wire rope termination with a safety hook to prevent access without staff knowledge
VF clients getting confused and attaching to ZT		<ul style="list-style-type: none"> Clear signage Staff supervision Staff always positioned at zip 1
		<ul style="list-style-type: none">

weather		
Wind – landing too fast of finishing early		<ul style="list-style-type: none"> Max operating?? Self rescue taught on training course for people who don't get to the end. Connect adjust et up so we can reach the wire. People taught the self rescue in the training course Staff rescue plan Breaking systems in place to prevent wall impact for people coming in fast System set up to always come in feet first for people coming in too fast
fog		<ul style="list-style-type: none"> Line if sight must be maintained at all times. If too foggy, additional must can be deployed
rain		<ul style="list-style-type: none">
lightening		<ul style="list-style-type: none"> Generic rules on thunder and lightening apply

Zip 3 cage		
Anchors and cage		<ul style="list-style-type: none"> Installed pre 2010 by challenge course consultancy Type c annually by high time Operational inspection every 3 months Inspected daily visually by staff
Impacts from landing		<ul style="list-style-type: none"> Stops and jaw in place Ramp in place for a walk off finish System is set up for a walk off finish
Unauthorised access from public		<ul style="list-style-type: none"> Signs and gate / chain in place at the top of the stairs

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Normal Operating Procedures

Zippers getting confused and attempting the course backwards		<ul style="list-style-type: none"> • Clear exit signs posted in the cage
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Staff		
Poor teaching and unsafe practices		<ul style="list-style-type: none"> • Staff internally trained as part of the VF tour training • Staff assessed externally by technical expert • Frequent observations from managers • Regular rescue refresher • Annual CPD • Requalification every 2 years
Repetitiveness		<ul style="list-style-type: none"> • Staff to keep their delivery varied • Staff stay with the group for kitting up, briefing and for first launches and rotate with other staff regarding session observations
Skill fade		<ul style="list-style-type: none"> • Regular rescue refresher • Annual CPD • Requalification every 2 years
Safety on platforms		<ul style="list-style-type: none"> • Staff need to attach a safety system when on a platform <ul style="list-style-type: none"> ○ It is too low for a fall arrest so this should not be used ○ A work position system attached to a rated attachment point should be used
Recue heavy people		<ul style="list-style-type: none"> • Maximum user weight is 18 stone, this means that moving people in an emergency is manageable for all staff using our rescue methods

stays		
Tripping		<ul style="list-style-type: none"> • Stays that cause a trip hazard should be covered with a plastic tube with contrasting colour • Signs placed near hazards • Trip hazards mentioned in the training course • No running briefed
Hitting heads / necks		<ul style="list-style-type: none"> • Helmets work by staff and zippers • Signs placed near hazards • Head height hazards mentioned in the training course

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Normal Operating Procedures

- No running

zippers		
Not getting to the end		<ul style="list-style-type: none"> • Participants trained on how to self rescue • Wind conditions monitored and adjustments made • Rescue system set up to retrieve people
Getting lost		<ul style="list-style-type: none"> • Course follows pre fixed wire ropes • Line of sight is maintained through course design
Unsafe behaviours		<ul style="list-style-type: none"> • Training course used to teach and assess safe behaviour for things like the following: <ul style="list-style-type: none"> ○ No running ○ Pushing ○ Making sure you clear the landing zone right away ○ No leaning back on the wires between zips • Line of sight by staff is good and staff can monitor the group
Incorrect attachment		<ul style="list-style-type: none"> • Category E system in place to ensure the safety system is always correct • Connect adjust system is simple (1 action) and the training course should be enough to build competence
Children attaching incorrectly		<ul style="list-style-type: none"> • Under 12 year olds need to have a visual check by someone 14+ before departure. This visual check is for: <ul style="list-style-type: none"> ○ Ensure the trolley is on the wire ○ Ensure the safety hook is correctly stowed ○ Ensure the landing ramp is clear • 1 x 14yr + person can monitor a max of 2 children under 12 years old
Dropping items and shoes		<ul style="list-style-type: none"> • Items to be secured in zip pockets only or left in cars / VF shed • Shoes to be securely fastened
Poor understanding of training		<ul style="list-style-type: none"> • Pictorial signs include: <ul style="list-style-type: none"> ○ Exit immediately ○ Wait to before the landing is clear ○ Attach the trolley here ○ Do not lean back on the safety cable ○ 1 at a time (temple run)
competence		<ul style="list-style-type: none"> • 6 practice zips need to take place before deployment • Staff to demo the whole training course • Staff to observe everyone on the zips

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Normal Operating Procedures

		<ul style="list-style-type: none"> • People must complete the course independently without assistance • Skill checker signed by zipper to assess competence should include: <ol style="list-style-type: none"> 1. Safe and correct operation of attaching to the system 2. Hands only on the handles 3. Land feet first 4. Exit immediately and only launch when previous zipper is clear to the via 5 plate 5. Under 12 year old supervision 6. NO jumping off the platforms / ramps 7. Read and observe signs 8. How to raise assistance
Zippers getting int trouble / unsure what to do		<ul style="list-style-type: none"> • Training course covers most foreseeable issues and people are assessed as competent before going onto the course • Participants told to wave at staff and shout “instructor” if they need assistance. This is captured in the training course • Staff will have line of sight over the course •
Too many zippers		<ul style="list-style-type: none"> • Ratio of staff to zipper is max of 1:16 • Max people on the course is 32 at any one time. This does not include the training zone
Medical		<ul style="list-style-type: none"> • Medical declaration is asked for at the time of booking • Staff will ask groups at the time of briefing if they have any medical information they need to disclose • Medical advice is provided on our website and in the booking process. The below conditions should be consulted with by a doctor prior to bookings: <ul style="list-style-type: none"> ○ Weak knees, joints and back could cause an issue on landing. ○ Heart conditions ○ Diabetes ○ Epilepsy ○ Pregnancy • The following conditions should be consulted with VF staff prior to booking: <ul style="list-style-type: none"> ○ Amputations ○ Visual and hearing impairments ○ Learning disability • People with the following conditions may not take part in the activity: <ul style="list-style-type: none"> ○ Wheel chair bound people •

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Normal Operating Procedures

PPE		
Incorrect fitting		<ul style="list-style-type: none"> • All PPE fitted is checked by staff • Participants told not to adjust their harness around the course • Full body harness used
failing		<ul style="list-style-type: none"> • PPE checked visually before and after deployment • PPE checked at least every 3 months • Full PPE checks carried out by a qualified PPE checked at least every 12 months • Equipment purchased is fit for purpose and compatible
Smoking and vaping		<ul style="list-style-type: none"> • No smoking once the session has started, signs in place • Vaping TBC
Being adjusted post checked by staff		<ul style="list-style-type: none"> • Participants briefed not to adjust their harness • Buckles are auto locking meaning that any adjustments that occur despite briefings are more likely to be safe than buckles that need to be rethreaded • All harnesses are rechecked at zip one launch spot

Trees		
		•
		•
		•

Terrain		
Slips trips and falls		•

Via Ferrata

Normal Operating Procedures

Adventure Barn

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX		
Assessed by:	Tony Baker	Date	27/12/22
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> • NA
Capacity	<ul style="list-style-type: none"> • 400 max
Safety factors	<ul style="list-style-type: none"> • No climbing on the climbing wall or the side walls • No blocking fire doors • Facilities and equipment checked before use
Operational Factors	<ul style="list-style-type: none"> • Climbing – see climbing NOP • Archery – See archery NOP <ul style="list-style-type: none"> ◦ Set up nets, signs, shoot away from main door, no other users allowed in the barn • Staff to brief and alter the activity if the floor is wet
Accessible Factors	<ul style="list-style-type: none"> • The barn is accessible
EAP	<ul style="list-style-type: none"> • See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> • Radio, FAK on side
Kit for Participants	<ul style="list-style-type: none"> • Sports equipment is available
Set up notes	<ul style="list-style-type: none"> • Visually check area and equipment before use

Via Ferrata

Normal Operating Procedures

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • General • Internal Structure • Climbing Wall • Sports Facilities • Groups and Events

Risk	Who it effects	How is this controlled?
General		
Slips trips and falls	All	<ul style="list-style-type: none"> • Activities played in the barn must be suitable, as a guide: <ul style="list-style-type: none"> ○ No contact sports like rugby ○ Sports games should be played as appropriate ○ Check the condition of the floor and change the plan if the floor is wet and or slippery
Water egress from poor weather leading to slips, trips and falls	All	<ul style="list-style-type: none"> • Staff aware this is a potential and to brief group accordingly • If the activity cannot be made safe then the activity should be altered
Structure	All	<ul style="list-style-type: none"> • INSPECTION interval TBC
Overcrowding leading to difficulties in evacuating	All	<ul style="list-style-type: none"> • Maximum users in the barn is 400
Internal structure		
Climbing the internal structure of the barn without a rope leading to falls from height onto concrete floor and significant injury and or death	all	<ul style="list-style-type: none"> • Access to supervised groups only • No entry signs • All groups should be considered as appropriate before being allowed access to the barn. The barn internal structure has potential access points for people to climb high (up to 9M) (internal framework, wooden structure, the climbing wall). Careful consideration to the groups, their background and displayed behaviour should be considered by their member of staff before being allowed access
Climbing wall – see climbing NOP and RA		
Sports facilities		
Damage to facilities though ball and contact sports	Barn	<ul style="list-style-type: none"> • The barn is designed to be robust, lights are designed to take an impact as is the shutter door
Facilities failing leading to injuries to users	Users	<ul style="list-style-type: none"> • Facilities to be checked before use by staff to make sure they are suitable and safe • Equipment checked before use - Faulty equipment isolated and removed from use

Via Ferrata

Normal Operating Procedures

Running into the wall and supporting pillars	Users	<ul style="list-style-type: none"> Games played are appropriate for the group in the barn, this will be risk assessed dynamically by the staff No additional padding is used so all groups told to stay away of hazards through a briefing at the start of activity
Archery in the barn	All	<ul style="list-style-type: none"> All Archery NOP followed Signs to be placed on all doors warning of archery in progress Nets must be used to prevent damage to barn wall Shooting must be done away from entry points, rule of thumb is shoot from West to East side of the Barn Only archery group can use the barn, no other groups permitted
Groups and events		
Evacuating in an emergency	All users	<ul style="list-style-type: none"> Fire doors checked in line with fire risk assessment 3 fire door in place Maximum users set see general Risk Assessment Visiting groups / group leaders made aware of fire evacuating during welcome brief and information cascade down to all users

Via Ferrata

Normal Operating Procedures

Adventure Quarry

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Adventure Quarry		
Assessed by:	Tony Baker	Date	27/12/2022
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> Internal Training Competent assistant (adult with specific training) 5 year retraining
Ratios:	<ul style="list-style-type: none"> 1:12 – Assessed staff 2:16 – 1 x Assessed staff and 1 x competent assistant
Safety factors	<ul style="list-style-type: none"> Spiders web – face up, full team support from both sides, spotting as required for Head, neck and back Shrinking islands – spotters in place, “let go” command, support and team work when moving the heavy platforms, Wall – spotting, watch fingers, agree height of wall Gabion’s and lower temple run– no jumping, use planks as a draw bridge, do not use if there is 30 CM from the top of the first gabion to the water, care and briefing on the path by the start of the long bridge Ice – refer to RA for operating condition if water is iced up Rope bridges – walk on bridges, maximum of 3 people Raft crossing – 3 people max, sensible behaviour briefing, life ring accessible, no jumping
Operational Factors	<ul style="list-style-type: none"> Lock gate at the end of the day Return equipment to the PS container as appropriate
Accessible Factors	<ul style="list-style-type: none"> Some activities will require additional staff such as gabion’s and raft crossing On raft crossing the chair must be suitable (see DM), see risk assessment
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> Radio, FAK on side, life rings in position Warm cloths close for accidental fall into water PFD needed if gabions are covered Staff prepared to enter the water if needs be
Kit for Participants	<ul style="list-style-type: none"> Sturdy shoes and sensible clothes
Set up notes	<ul style="list-style-type: none"> Spiders web and activities according to plan need setting up before the group arrives Staff to visually check equipment before use and also the rock in the surrounding quarry

Via Ferrata

Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • To encourage team work • To develop cognitive and communication skills • To be fun and engaging • To be safe
Time	<ul style="list-style-type: none"> • 1.5-3 hrs
Equipment needed	<ul style="list-style-type: none"> • All equipment is set up except the spiders web • Blindfolds and other equipment can be used to add challenge to the activity
Set up notes	<ul style="list-style-type: none"> • Check the quarry before use • Set up the spiders web as needed • Visual check of apparatus before use
Briefing	<ul style="list-style-type: none"> • Introduce yourself and gain rapport with the group • Introduce challenge by choice • Safety rules, stay together, listen to instructions • Medical information
Main delivery	<ul style="list-style-type: none"> • The main delivery is dependent on the group and their aims for the day. The adventure quarry can be used so each activity leads onto the next or activities can be used in isolation as a warm up or break out activity. • Each separate activity should have an element of safety briefing; this can be guest led or instructor led. In both situations all relevant areas of safety highlighted in the NOP and risk assessment must be covered and understood by the group and group leaders
Summary	<ul style="list-style-type: none"> • These can be done to fit the group's needs, reviews can take place at the end of the activity, at the end of the task or randomly throughout the session.
Pack away	<ul style="list-style-type: none"> • Pack away the spiders web and leave the activity area as you would expect to find it • Lock the adventure quarry bottom gate after use
Other notes	<ul style="list-style-type: none"> •

Via Ferrata

Normal Operating Procedures

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • ADQ – general risks • Ice • Spiders web • Shrinking islands, plank crossing, gabions and duck island crossing • Plank crossing • Rope bridges • Raft challenge • Cargo net • Wall • Lower temple run • Problem solving activities

Risk	Who it effects	How is this controlled?
<ul style="list-style-type: none"> • General Risks 		
Poor management of groups leading to injuries	Participants	<ul style="list-style-type: none"> • Ratios set at 1:12 • Ratios can be extended 2:16 with one member of staff being assessed working alongside another member of staff who is trained. Conditions for this are: <ul style="list-style-type: none"> ○ Both staff operate either together or in line of sight of each other ○ Supporting member of staff is comfortable with role and position asked of them • Staff to receive internal training before operation • Staff with significant prior experience can be granted permission to operate in the quarry following an induction. A record of their experience should be kept on file
Unauthorized access leading to drowning, impact injuries, falls from height, crush injuries and more	Public	<ul style="list-style-type: none"> • The main gate, the top entrance and the accessible abseil is locked when not in use • On arrival to site guests are advised not to pass any gate unless accompanied by an instructor • Staff to be vigilant of unauthorised access
Clients accessing high places though climbing to accessible high places or by using the via ferrata course and its access ladders leading to falls from height	Users	<ul style="list-style-type: none"> • All groups are led by a member of staff • Sessions structured so there is good group control and staff have line of sight at all times
Falling into water and drowning	Staff Guests	<ul style="list-style-type: none"> • The depth of the quarry is less than 1 M (see gabions and raft risk assessment)

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Normal Operating Procedures

		<ul style="list-style-type: none"> A life ring is positioned around the quarry to aid rescues Instructors are prepared to enter the water should the need arise When the gabions are all covered the water becomes too deep and buoyancy aids must be worn When there is a 30cm gap between the water and the top of the first gabions the water is too low and cannot be used The protocol for rescues is: <ol style="list-style-type: none"> 1. Coach- talk to them to stand up 2. Reach- gabion plank 3. Throw- use the life rings 4. Go- wade in
Non swimmers and people with disabilities not being able to stand up leading to drowning	Guests	<ul style="list-style-type: none"> Staff prepared to enter the water to provide assistance Any equipment utilised by the participant to aid them in their disability must not become a hazard should they enter the water
Falling into the water and hitting rocks leading to impact, back and or head injuries	Guests Staff	<ul style="list-style-type: none"> The two water activities (raft crossing and gabions) are in water deep enough to avoid these types of injuries
Evacuation from the water	Guests Staff	<ul style="list-style-type: none"> The easiest form of evacuation is by walking / floating / towing people across the water A raft is available to move people around if necessary Life ring in position between the raft crossing and the gabions
Rock falls and stone being dislodged by climbers leading to crush and head injuries	Guests Staff	<ul style="list-style-type: none"> All staff look at the quarry for signs of instability and feed back to the centre manager as and when Unstable areas are: <ul style="list-style-type: none"> ○ The NW corner of the quarry- the path has been rerouted to avoid this area ○ The viewing square, this has marking to monitor any movement Participants on climbs are controlled and routes are well used to avoid loose stones One area of potential instability by the viewing square has monitoring marks and is inspected regularly
When the lake is frozen. Participants falling through the ice and becoming trapped under the ice leading	Staff Guests	<ul style="list-style-type: none"> Falling into the water is unlikely and rarely happens but should the adventure quarry be frozen then it can only be used if the ice breaks when lightly pushed (so it is very thin)

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Normal Operating Procedures

to distress and possible drowning		<ul style="list-style-type: none"> Spare clothes, warm drinks and foil blankets should be available on location to warm people up should immersion in the water occur Very young people will not be allowed to use the water if it is frozen, see the duty manager on the day for clarification on this decision
Equipment failing leading to crush or impact injuries	All	<ul style="list-style-type: none"> Staff to visually inspect equipment and apparatus before use All kit suspected to be faulty should be reported to line managers and if possible isolated
General lack of awareness of environment leading to inappropriate behaviour and subsequent injuries including slip trips and falls	Guests	<ul style="list-style-type: none"> A “gate brief” to be given prior to entry to the adventure quarry making people aware that: <ul style="list-style-type: none"> Surfaces are uneven, Walk not run There is a real risk of getting muddy and or wet, make sure people have access to spare clothes Falls are possible, participants are encouraged to work together, listen to instructions and only to access parts of the quarry they have been asked to Surfaces will be slippery when wet, tread carefully and support each other
Falling down the goat track leading to impact injuries	All	<ul style="list-style-type: none"> All users of the quarry will be on a lead activity / walk by a be member of staff All users of the goat track will receiving a briefing which will include: <ul style="list-style-type: none"> Take their time Use the wall for balance Be aware there is a big step down in the middle – do not jump Instructors can choose to spot users on the middle step down if the groups requires it. This must risk assessed on a case by case basis but suggested for groups of younger people and people who may be less mobile
Spiders web		
Touching of sensitive parts of the body during the lifting leading to allegations of abuse	Guests Staff	<ul style="list-style-type: none"> Participants are encouraged to face up when being passed through the web Staff to remain vigilant during the lifting
Hyper extension and injures from being dropped / lowered onto the web	Guests	<ul style="list-style-type: none"> The spiders web is made from stretchy bungee and will stretch Group coached / demonstrated on how to lift people Team work encouraged

Via Ferrata

Normal Operating Procedures

People being dropped leading to impact injuries	Guests	<ul style="list-style-type: none"> • The instructor to maintain group control • People only lifted when adequate support in place both sides • Participants briefed to focus attention onto back head and neck when lifting as a priority to keep safe • The head, neck and back will be encouraged to pass through first so the “receivers” have easy access to these and can maintain a better grip • Instructor to help if necessary • Participants to only be passed through the holes and underneath i.e. not over the top
Shrinking islands, gutter run, gabions, plank crossing and duck island		
Participants falling onto other people resulting in crush injuries	Guests Staff	<ul style="list-style-type: none"> • All spotters have received training or have received guidance from the instructor on correct spotting technique i.e. good stance, hands up and ready
Multiple people falling off together resulting in crush injuries	Guests	<ul style="list-style-type: none"> • During the briefing people are instructed on the “let go” command and its importance • Challenge levels are set appropriately • Spotters used
gabions only- manual handling and head injuries while moving planks	Guests Staff	<ul style="list-style-type: none"> • Planks are as light as possible without compromising safety • People shown how to safely move the planks or people educated how to move them during the activity to avoid manual handling and crush injuries
Duck island equipment failing leading to impact injuries and drowning	Staff, guests	<ul style="list-style-type: none"> • Equipment inspected beforehand by staff for security and stability • Users limited to 4 per activity station or 2 per tyre • Water height is a maximum of 1 meter. Staff should be prepared to enter the water to assist people as necessary • PFD’s can be used with specific service users based on individual risk assessment (i.e. people with epilepsy, very small children etc.) • No jumping between apparatus and support and team work encouraged
Head injuries from falling or landing on equipment	Users	<ul style="list-style-type: none"> • Team work encouraged • No running or jumping on or between any apparatus • Gabians – these are mostly soft rubber coverings so the risk is very low. There are the vertical support poles that have the potential to cause an injury so specific mention in briefing not to jump is important.

Via Ferrata

Normal Operating Procedures

Water related hazards and control measures- refer to the start of the risk assessment

Rope bridges		
Overloading the bridge resulting in critical failure and the bridge collapsing	Staff Guests	<ul style="list-style-type: none"> Signs stating load bearing capacity on each end of the bridge, this is a maximum of 3 people
Wear and tear leading to critical failure and the bridge collapsing	Staff Guests	<ul style="list-style-type: none"> Annual inspection from wire rope inspector / engineer
Slipping or tripping on the bridge leading to cuts and grazes as a result of the natural bridge movement	Staff Guests	<ul style="list-style-type: none"> All users must only walk on the bridge, running is not permitted Signs in place to reflect this Non-slip decking used in the construction
Raft crossing		
Raft being overloaded and tipping over resulting in distress and possible drowning	Staff Guests	<ul style="list-style-type: none"> Estimated safe working capacity is 210 KG (3 x average male at 70KG) Sensible behaviour encouraged Staff to monitor activity
People on wheelchairs falling into the water	Staff Guests	<ul style="list-style-type: none"> <i>This is a higher risk activity with the benefit for the participant being a very rewarding, sensory stimulating and a fun challenge. The following needs to be considered:</i> Is the chair suitable for the activity (good brakes, good for above water use, participant easily escapable from the chair)? Is there enough support at either end and on the raft? Is the raft stable enough- will the people on the raft understand the dynamics of its stability? Is the participant able to communicate their level of comfort within the challenge? Control measures: <ul style="list-style-type: none"> 2 people (including the participant) on the raft maximum The additional person (member of staff if confident) should be confident to operate the chair safely Only light chairs to be used i.e. no motors. BFA has a selection of low suitable chairs Weight should be low and movement slow and controlled

Via Ferrata

Normal Operating Procedures

		<ul style="list-style-type: none"> ○ Instructor to maintain excellent group control through challenge ○ Permission from the duty manager / team leaders must be gained before the challenge takes place ○ Adequate support at either end must be in place to facilitate a smooth transition on and off the raft ○ The instructor and one other competent adult must be prepared to enter the water to provide assistance should the raft tip over ○ Participants in chairs must not be tied into them and any seatbelts or other restraints are removed. ○ Support from either side must be present ○ Users and parents / support workers must be made aware of and happy with the risks and control measures
Jumping off the raft and landing short resulting in impact injuries and also knocking other raft users off in the process	Guests	<ul style="list-style-type: none"> • no jumping off the raft, only controlled dismounts and launches
Crush injuries from fingers and other limbs being caught between the raft and the bank	Staff, guests	<ul style="list-style-type: none"> • Staff to monitor and if necessary brief the participants engaged in raft activities
In the water see start of risk assessment		
Lower temple run		
Falling from the path into the quarry, this is a fall from height of about 2 meters and could result in impact injuries and possibly drowning	Staff, guests	<ul style="list-style-type: none"> • Water here is very shallow, about 1 meter so staff can access this by wading into the water to support the casualty • The path is wide but uneven. Groups taken up above the stairs should be steady on their feet or additional support set in place to assist people
Slipping on the path leading to impact injuries, head injuries and difficult evacuations	Staff, guests	<ul style="list-style-type: none"> • The lower temple run is very narrow and navigates around large boulders so the use of this course is not for racing or speed • Participants briefed to take their time, work together • Participants advised if appropriate to keep their weight low and possibly use 3 points of contact • Some people may require assistance and or spotting

Via Ferrata

Normal Operating Procedures

Problem Solving		
Cuts, grazes from faulty equipment	Users	<ul style="list-style-type: none">Equipment check every term in our inventory checks
Minor injuries from misuse of equipment	users	<ul style="list-style-type: none">Staff visually check equipment upon set upActivities can be deployed in any indoor / outdoor venue. Its location is assessed by the staff setting it up taking into account the group, the activity and the intended learning outcome.

Via Ferrata

Normal Operating Procedures

Archery

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Top Field / Barn or any other site assess location that has been approved by the CM		
Assessed by:	Tony Baker	Date	28/12/23
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment	
Experience Training and Qualifications	<ul style="list-style-type: none"> In house trained or Archery GB qualification Competent assistants – people who have been trained, not assessed Refresh every 3 years
Ratios:	<ul style="list-style-type: none"> 2 archers per target, max 1:12 or 2:16 with competent assistant
Safety factors	<ul style="list-style-type: none"> Flag in place Safety zones clearly set up and briefed Arrows and bows stored separately No walking directly at the targets Broken arrows and bows isolated Briefing in place – see lesson plan All arrows are oversized Staff to be aware of the overshoot area
Operational Factors	<ul style="list-style-type: none"> Safety briefing before shooting Equipment correctly fitted to participant Staff always in PMU and have line of sight Arrow collection managed appropriately Staff to manage the range and shooting to promote a safe range <p>More detailed info in lesson plan</p>
Accessible Factors	<ul style="list-style-type: none"> Adapted kit such as triggers and stand in place
EAP	<ul style="list-style-type: none"> See EAP at the start of this document Radio signal can sometimes be poor, but mobile signal is good

Equipment and Venue	
Safety equipment	<ul style="list-style-type: none"> Radio, FAK
Kit for Participants	<ul style="list-style-type: none"> Bow, arrows and arm guard
Set up notes	<ul style="list-style-type: none"> Visually check all kit before use Set up flag Set up range- targets up, bows strung, arrows collected

Via Ferrata

Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> To ensure participants are as safe as necessary To enthuse participants through a very quick taster session of archery and basic coaching To provide an enjoyable session
Time	<ul style="list-style-type: none"> 1.5 hrs
Equipment needed	<ul style="list-style-type: none"> Bows, arrows, arm guards, targets Flag
Set up notes	<ul style="list-style-type: none"> Place targets on the bosses Place quivers onto the ground
Briefing	<ul style="list-style-type: none"> Build rapport- introduce yourself, the session and learn names Aims and objectives for the session- agree with the group Safe zones-shooting, waiting, no go zone Stop command Previous experience Discuss any medical needs Safety rules
Main delivery	<ul style="list-style-type: none"> This is a general overview of how the session should run. Games and coaching can vary massively depending on the group and their experience. Explanation and demonstration: Introduce all the equipment to the group Demonstrate how the equipment works safely Explain appropriately how to shoot effectively and safely Coaching: A combination of individual and group coaching should be applied here in order to reach a basic level of competence. Guests should have initial coaching and on-going coaching on technique in order to gain as much skill as possible Activity; a series of games and scoring can be used to make the session fun and enjoyable.
Summary	<ul style="list-style-type: none"> The session should be reviewed to draw out learning and where necessary, learning points and actions are considered for their next session
Pack away	<ul style="list-style-type: none"> Store the equipment as shown on your latest training
Other notes	<ul style="list-style-type: none"> No Balloons to be used to reduce environmental impact

Risk Assessment	
Hazards	<ul style="list-style-type: none"> Arrows Bows Shooting Overcrowding Over drawing collecting Arrows quarry edges

Via Ferrata

Normal Operating Procedures

Risk	Who it effects	How is this controlled?
Walking, tripping and falling into the arrow when collecting the arrows from the target leading to face and chest injuries	Staff Guests	<ul style="list-style-type: none"> • Always walk on the range • Good demonstration and explanation (maybe practice) on how to collect the arrows safely • Collecting arrows may not be appropriate for all groups, instructors to assess this during delivery • Range maintained to avoid trip hazards • Trained staff on sessions
People being hit by arrows from peers as they pull arrows out of the target	Staff Guests	<ul style="list-style-type: none"> • Only one person per side of the target may pull arrows out • Instructors teaching people how to pull out the arrows and also continuously checking to see if the area around them is safe and clear of other participants
Walking into arrows on the floor when collecting arrows leading to cuts to shins	Staff Guests	<ul style="list-style-type: none"> • Instructors to track the arrows that fall short and inform the group to be careful • Guests instructed to walk down the centre of the range or down the side of the range where there will be significantly less arrows • Trained staff on sessions
Arrows hitting people in the eyes while being carried	Staff Guests	<ul style="list-style-type: none"> • Participants shown how to safely carry arrows • Participants monitored by the instructor • Arrows are placed in the quivers when not being carried or shot • Trained staff on sessions
Over drawing leading to injuries to people on the shooting line	Staff Guests	<ul style="list-style-type: none"> • All arrows are long arrows to reduce this risk • Staff trained to recognise over drawing • Staff trained how to measure arrow length
Bows breaking leading to injuries to the users	Staff Guests	<ul style="list-style-type: none"> • Bows checked half termly and when being strung up • Bows appropriately sized to participants • Trained staff to check bows • Bows checked before issues to participants • Bows and strings to be paired which ensures the correct length string is used for each bow
Bruising to inner arm while losing the arrow	Staff Guests	<ul style="list-style-type: none"> • Arm braces used when appropriate • Long sleeves recommended for all users • Staff trained in the appropriate use of equipment
Hair and loose items becoming caught in the bow string during shooting leading to poor shots and potential small injuries	Staff, Guests	<ul style="list-style-type: none"> • Long hair tied back and the bow string is free from obstructions (i.e. coats tassels, necklaces) • Staff trained in correct firing position to minimise risk

Via Ferrata

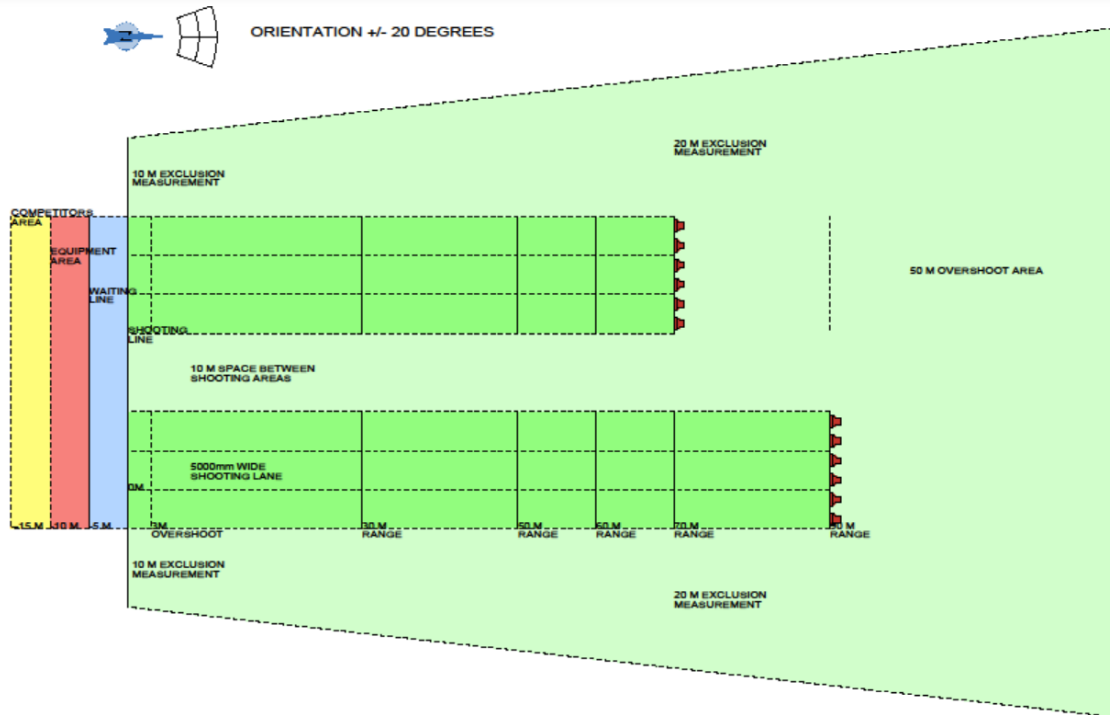
Normal Operating Procedures

Being hit by arrows leading to severe injuries and death	Staff Guests Public	<ul style="list-style-type: none"> Trained instructors on sessions teaching appropriate techniques to a minimum of BF Adventure archery training BFA will have 1 x Archery GB instructor on site to oversee training and procedures Guests monitored for safe behaviour Session stopped and people excluded for poor behaviour 50 M+ overshoot area or large embankment to reduce the risk of members of the public being shot The area behind the range will be inaccessible to the public Red flags used to warn others that archery is in progress When arrows and bows are loaded then it is taught that the arrow will only point at the floor or the target Guests will not enter the "no go" area unless instructed by the coach The area behind the Archery range does not have any sessions that run there on a normal basis. Arrows can only be picked up once in position on the firing line and not before <p>See picture after risk assessment:</p>
The coach being distracted as too many people are in and around the shooting area / line leading to a variety of injuries	Staff Guests Public	<ul style="list-style-type: none"> Only people actively shooting will be allowed on the shooting line People not shooting will be in the waiting area Only 2 people per target can shoot (excluding people coaching them) Suggest Ratio of 1:8 1:12 ratio can be applied with additional adult supervision Where appropriate, team members / leaders / parents can support shooters through coaching inside the area. This will be managed by trained staff
Overdrawing especially on the larger bows with junior arrows leading to shooting injuries on the hand holding the bow	Staff, guests	<ul style="list-style-type: none"> Only long arrows are to be used on the larger bows, these are identified with red tags Staff trained on over drawing, how to recognise and coach if necessary
Slip, trip and blackthorn injuries from staff collecting	Staff	<ul style="list-style-type: none"> The area behind the archery range to be maintained enough to allow for staff access

Via Ferrata

Normal Operating Procedures

arrows in overshoot area		
Arrows bouncing off quarry edges on the side and end of the range resulting in people being struck by the arrows	Staff, guests	<ul style="list-style-type: none"> Nets to be placed at the end of the range



Via Ferrata

Normal Operating Procedures

Bush Craft

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe Quarry Any suitable site		
Assessed by:	Tony Baker and Paul Cox	Date	14/1/22
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment	
Experience Training and Qualifications	<ul style="list-style-type: none"> In house training breaks down to these 18 units. Units 1-6 are mandatory to enable an instructor to run a basic Bushcraft session. <ul style="list-style-type: none"> Unit 1 – Wilderness Play Unit 2 – Knife Law / Sharpening Unit 3 – Cutting tool Safety Unit 4 – Cutting techniques Unit 5 – Basic Firecraft Unit 6 – Basic Shelter building Units 7 – 18 introduce more complex skills development and enable the instructor to provide additional educational content. Unit 11 provides training and assessment to enable instructors to supervise young people to use tools 2 year refresh Offsite trips require Outdoor First Aid Qualification 16 hours or similar
Ratios:	<ul style="list-style-type: none"> 1:12 - shelter 1:8 Fire 1:30 – arts and craft and cooking (needs adult support 1:10, this can be a teacher) 1:16 bivvy (must be at least 2 adults)
Safety factors	<ul style="list-style-type: none"> Allergies to be disclosed at the start of the session Ferns to be picked carefully, gloves can be used if necessary Dangerous plants such as fox glove to be identified and briefed as appropriate Staff to be aware of ticks and this information passed onto YP 3 tier risk assessment to take place before each session FIRE LIGHTENING <ul style="list-style-type: none"> Knee height, use fire square, clean site (no leaf litter etc.), attended at all times, water and burn gel on hand, fire blanket, canopy check above fire Fully extinguish fire before leaving the site 3 people max at fire square, safe stance taught, no walking over fire Staff to monitor all fires SHELTER <ul style="list-style-type: none"> Knife to be used by competent people only Units 2,3 & 4 Heavy logs should be carried as a team or dragged TOOLS <ul style="list-style-type: none"> Stored in safety box when not in use Tools only to be used by trained staff Unit 2,3 & 4

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Normal Operating Procedures

	<ul style="list-style-type: none"> Participant must receive specific training from qualified staff member – Unit 11 Tool use should be from a stationary position, tool length safety zone to be enforced, safe tool stances to be taught Knives to be kept sharp YP to be directly monitored by staff during tool use - Unit 11 qualified Clean water close by for cleaning cuts COOKING (Other than Marshmallows) <ul style="list-style-type: none"> Staff must hold valid L2 food and hygiene Staff must have been trained in unit 10 Food handling refer to L2 food and hygiene best practice Oven gloves to be available, burn kit available Hand washing regularly during activity
Operational Factors	<ul style="list-style-type: none"> Consideration to site based on group and activity to be considered 3 tier risk assessment to place as per training
Accessible Factors	<ul style="list-style-type: none"> Lower field site is accessible
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> Radio, FAK Fire – water, burn gel, fire blanket Cooking – hand wash facilities, oven glove, water Tools – clean water Rucksacks – used for moving equipment
Kit for Participants	<ul style="list-style-type: none"> Good footwear, long trousers encouraged
Set up notes	<ul style="list-style-type: none"> Relevant paperwork in place for offsite trips

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Normal Operating Procedures

Basic Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> To encourage team work To develop an awareness and appreciation of the natural environment To be fun and engaging To be as safe as necessary
Time	<ul style="list-style-type: none"> 1.5 hours, 3 and 6 hours
Equipment needed	<ul style="list-style-type: none"> Various depending on content Rucksacks used to move equipment to keep hands free as much as possible
Set up notes	<ul style="list-style-type: none"> Equipment should be pre-packed and probably pre-planned depending on the session 3 tier risk assessment to take place
Briefing	<ul style="list-style-type: none"> Introduce yourself and gain rapport with the group Safe movement and behaviour To be aware of the environment and of others Medical information
Main delivery	<ul style="list-style-type: none"> The main delivery will vary massively depending on the group and its size, number of instructors, the number of adults and also the content and aims of the session. Session will usually contain: <ul style="list-style-type: none"> Creating the right learning environment Briefing and demonstrations / tasks Monitoring, supervision and mentoring Reviewing and sharing of learning
Summary	<ul style="list-style-type: none"> Leaving the environment how we found it and relating the session back to life
Pack away	<p>Leave the equipment and site as you found it or better and ready for the next session.</p> <ul style="list-style-type: none"> When necessary report low stocks of equipment and resources to the staff responsible for bush craft ASR or to the Team Leader for replenishment.
Other notes	<ul style="list-style-type: none">

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Normal Operating Procedures

Risk Assessment	
Hazards	Staff Activity location Weather Natural materials Insects Fire Shelters Tools Cooking

Risk	Who it effects	How is this controlled?
Inexperienced staff using poor techniques leading to injuries of themselves and participants	Staff and guests	<ul style="list-style-type: none"> All staff to demonstrate competence in Units 1-6 as a minimum in order to run a basic bushcraft session. This supports the use of fire and shelter in the wider woodland environment Arts and craft are taught during training but have no assessment All staff to receive refresher training on an 2 year basis
Slips, trips and falls	Staff and guests	<ul style="list-style-type: none"> Sites are to be kept as natural as possible to maintain a suitable environment Guests to be instructed to tread carefully and wear correct footwear Appropriate sites will be selected according to the weather and the group capabilities 3 tier risk assessment to take place as per training Rucksacks provided for staff and young people to carry equipment to site. This improves line of sight and keeps hand free for balance In wet conditions, care site choice should be taken and this should form part of the 3 tier risk assessment. Briefing, team work and route choice should be taken place to provide a safe route to bush craft. Extra care taken in and around exposed roots as they are very slippery when wet.
High winds bring down live and dead wood onto site users	Staff and guests	<ul style="list-style-type: none"> Sites are not to be used in winds exceeding force 5-6 Staff to be mindful of dead wood hanging in trees and if necessary this should be reported to the centre manager 3 tier risk assessment to take place as per training
Cuts, scratches and stings from collecting	Staff and guests	<ul style="list-style-type: none"> Group should be briefed to take care when collecting natural materials

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leaf litter and natural materials		<ul style="list-style-type: none"> Any allergies should be made aware to the instructor at the start of the session Ferns should be picked carefully or ideally gloves should be used Toxic or potentially poison weed, berry, flower, etc. to be identified and kept away from during session
Tick bites leading to limes disease	Staff and guests	<ul style="list-style-type: none"> Guests are encouraged to wear long trousers when in the bush craft area Advice given to people who are bitten by ticks Instances of ticks have never been recorded at BF adventure so although we have the above control measures the overall risk is very low
<ul style="list-style-type: none"> Fire lighting 		
Fire getting out of control leading to burns	Staff and guests	<ul style="list-style-type: none"> All fires built during bush craft sessions should have flames smaller no bigger than knee height All fires are to be constructed in fire squares Fire sites are to be clear of leaf debris All fires are to be managed by competent instructors Fires should not be left unattended All fires should be extinguished safely before leaving the site Water and burn gel available on all sessions Fire blanket should be kept in the fire lighting equipment
Tripping and falling onto the fire leading to burns	Staff and guests	<ul style="list-style-type: none"> Clear rules should be set appropriate to the group about behaviour around the fire 4 people are allowed to attend to the fire square at any one time The area around the fire should be keep tidy, organised and free from trip hazards Suitable sites clear of natural obstacles should be selected Groups are told to walk around the fire Groups told about the safe and low stance 3 tier risk assessment to take place as per training
Fire spreading leading to destruction of surrounding area	Staff and guests	<ul style="list-style-type: none"> Fire sites should be kept clear of leaf litter Fires should be monitored by instructors at all times Instructors to monitor the amount and length of firewood being used and style of fire being built, (Tepee, Pyramid, Long, etc.) Fire square site should ideally be under a clearing in tree canopy or with canopy at least 4m, (12-13ft) above ground level

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Group numbers and fire sites becoming too spread out leading to unsupervised fires getting out of control leading to burns and fires spreading	Staff and guests	<ul style="list-style-type: none"> • Ideally water station by each fire square if not 1:2 • The maximum group size for bush craft is 12 participants to one instructor • For fire lighting the recommended ratio is 8 participants to one instructor • A maximum of 4 fire squares (including a main teaching fire site) can be supervised by one instructor • The recommended maximum ratio of participants to 1 fire square is 4 at any one time • Instructors are to regularly visit all fire sites to ensure they are being maintained
• shelters		
Shelters collapsing onto guests resulting in injuries	Guests and staff	<ul style="list-style-type: none"> • Supervision and, if appropriate, instruction should be provided by instructors to ensure structure built does not cause harm • 3 tier risk assessment to take place as per training
Cuts resulting from using the knife when used to cut sisal	Guests	<ul style="list-style-type: none"> • Unless specifically taught (see knife risk assessment), only competent staff are allowed to use knives during sessions
Lifting and moving large logs leading to manual handling injuries	Guests	<ul style="list-style-type: none"> • Teamwork encouraged when moving large logs • Groups briefed on safe lifting techniques • Logs too heavy to carry should be dragged or used during the session
• Tools		
Unauthorised use leading to injuries to themselves or others	Guests and public	<ul style="list-style-type: none"> • Knives, Axes strikers and ignition materials are stored in the equipment store and locked using a coded padlock • Stoves and fuel securely stored
People using knife inappropriately leading to cuts	Staff and guests	<ul style="list-style-type: none"> • Staff can use knives once they have demonstrated competence in line with training Units 2,3 & 4 this includes: <ul style="list-style-type: none"> ○ Appropriate grip ○ Safe use ○ Correct stance ○ Awareness ○ Training ○ Knife law • Guests can use knives once they have received training and have demonstrated competence. This should be carefully measured and be a well-structured process. • Only staff approved for teaching knife work can teach this at BF Adventure (Unit 11)
Accidental slips with knives leading to cuts	Staff and guests	<ul style="list-style-type: none"> • People using the knives should be stationery

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to other people and themselves		<ul style="list-style-type: none"> All knives not being used must be sheathed immediately All knives not being used or carried must be placed in a secure box or carried by the instructor When using knives, they must be in a zone clear of other people (except the instructor when under instruction) at least a tool length away. This can be achieved by sitting on prepositioned stumps, creating zones by marking the floor or setting and checking behaviour 3 tier risk assessment to take place as per training
Lack of skill or control by guests leading to cuts	Guests	<ul style="list-style-type: none"> Always used with blades away from body Knives to be kept sharp Staff to demonstrate competence and where necessary, receive training on how to use a sharpening block A series of skill-based challenges progressing in difficulty should be introduced which can be used, these can look like: <ul style="list-style-type: none"> Using a stick / potato peeler to represent the knife to practice technique Stripping bark of green sticks or feather sticks Whittling small sticks
People using Axes inappropriately leading to injury	Staff and guests	<ul style="list-style-type: none"> Staff can use Axes once they have demonstrated competence in line with training Units 7 this includes: Unit 7 yet to be written
Injuries from sharpening tools leading to cuts and bleeding	Staff and guests	<ul style="list-style-type: none"> Ensure a tidy and flat work station with enough space for the task at hand When sharpening ensure a well-ventilated space and only work the knife away from your body Wear a glove on the non-handled part of the hand to remove excess fluid and metal burrs
Cutting an artery leading to severe bleeding	Guests and staff	<ul style="list-style-type: none"> All staff to be first aid trained and to carry well stocked first aid kits Safe stances when using knives will be taught and actively encouraged. These actively cut away from the femoral artery Guests using knives will be directly monitored by the instructor unless express permission is granted by the centre manager for guests to operate knives unsupervised Ensure that there is some clean water nearby to aid cleaning the wound (toilet block or water tap by equipment store)
<ul style="list-style-type: none"> cooking 		

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Cross contamination and ill cooked food leading to food poisoning	Staff and guests	<ul style="list-style-type: none"> • Staff cooking with guests will have a level 2 food hygiene certificate • Where possible, meat will not be used in cooking outside • When meat is to be used in cooking, effort should be made to prepare and cook the meat in a kitchen environment • Meat cooked outside should be prepared in conditions that meet the requirements laid out in the Level 2 food and hygiene certificate
Burns and scalds from handling hot pans	Staff and guests	<ul style="list-style-type: none"> • Oven gloves to be taken to the cook site • Burn kit and fire blanket available
Inappropriate use of Trangia and storm kettles leading to burns	Staff and guests	<ul style="list-style-type: none"> • Staff and guests should receive training before use • Trangia to set up in a safe place(s) such as next to a linier feature, in a well-marked area • The base should be stable • All lighting should be supervised by an instructor • Fuel should be stored at least 5 metres away from the Trangia when it is alight or being lit • The stove must NOT be refuelled until the burner unit has been completely extinguished. This is with the cap on for at least 5 minutes allowing enough time for it to cool down • When using the storm kettle, the cork must be removed when heating the water • Care should be taken when pouring out water out of the storm kettle. This should be done in an area away from people as the water can spill from the storm kettle. • Gloves should be worn when picking up / pouring from storm kettle
Poor hygiene leading to food poisoning	Staff and guests	<ul style="list-style-type: none"> • Hand washing solution will be used before people handle any food • All pots and pans are to be washed in environmentally clean soapy water

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Normal Operating Procedures

Paddle Sport

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe Quarry		
Assessed by:	Tony Baker	Date	29/12/2022
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment	
Experience Training and Qualifications	<ul style="list-style-type: none"> • BC qualifications • BF Paddle Sport award (new for 2021) • SUP equivalent qualifications can be used but must be authorised by the CM
Ratios:	<ul style="list-style-type: none"> • 1:8 kayaks, canoes and SUP • 1:12 rafted canoes
Safety factors	<ul style="list-style-type: none"> • Yellow roped off area to be avoided • Briefing before going on water to include: general talk about the area, setting boundaries, what to do if they capsize, recap on medical info, event in an emergency and communication • Issue and ensure all PPE fitted correctly
Operational Factors	<ul style="list-style-type: none"> • Station radio either on the instructor or on the side • Consider the games being played and whether helmets should be worn • Be mindful of swimmers and people jumping, keep area around them clear • Keep beach as free as possible for other groups to launch
Accessible Factors	<ul style="list-style-type: none"> • Seats, and moving aids are available for session use
EAP	<ul style="list-style-type: none"> • See EAP at the start of this document • Radio black spots in the quarry for staff to be aware, personal phones on locations as a means of back up communication • Only access point is the beach so evac as per training to this spot

Equipment and Venue	
Safety equipment	<ul style="list-style-type: none"> • Radio, FAK on side, means of towing / moving people, • Consideration to weather (spare clothes, wetsuits, blankets, warm drink, sun cream, hats, water etc)
Kit for Participants	<ul style="list-style-type: none"> • PFD, craft, paddle • Helmets only need to be used if the games or content increase the risk of a head injury
Set up notes	<ul style="list-style-type: none"> • Visually check craft and PFD's prior to issue

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Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • Teach participants the basics of paddling • Enthuse guests through a positive experience and allow an avenue for progression • Ensure the session is as safe as necessary
Time	<ul style="list-style-type: none"> • 60-180 minutes
Equipment needed	<ul style="list-style-type: none"> • Kayaks / canoes, paddles, buoyancy aids, helmets (instructor's decision), • First aid kit, radio • Toys, balls etc. • All users of the lake will wear: <ul style="list-style-type: none"> ○ Correctly fitted buoyancy aid ○ Good fitting shoes ○ Wetsuits are available to guests on cold days or if a wet session is planned ○ Helmets are available if the group and / or the session plan deem it necessary. This decision is the instructor's to make • BF adventure has a cover up policy which prohibits the sole use of bikinis and swimming trunks and promotes the use of T shirts and shorts for all users <p>Swimming pool:</p> <ul style="list-style-type: none"> • If BFA equipment is allowed to be used it must be washed with clean water before use • Helmets are to be worn at the discretion of the instructor, the following guidelines apply: <ul style="list-style-type: none"> ○ Nature of session- playing ball games and raft games will require helmets, skill tuition and rolling do not necessarily need helmets ○ Pool shape and depth- deep pools do not need helmets, pools with shallow areas need helmets or boundaries need to be set ○ Participants-if the session is novice playing games and having fun which involves significant and possibly fast movement, then participants should not be swimming in the water. For coaching sessions, it is permissible for people to swim in the water around the kayaks provided the people paddling are experienced paddlers. <p>When operating offsite the additional equipment must be carried:</p> <ul style="list-style-type: none"> • Towline • Throw line • Group Shelter • Spare clothes • Water / hot drinks • Whistle • Spare paddles • Mobile phone • Map
Set up notes	<ul style="list-style-type: none"> • All equipment will be visually checked prior to use • For all off site activities, an offsite form must be completed and authorised by a BCU Level 3 coach

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	<ul style="list-style-type: none"> • Unlock canoes / kayaks • Gather medical information • Collect wetsuits if needed
Briefing	<p>Introduce yourself and start building rapport</p> <p>The instructor will brief the following:</p> <ul style="list-style-type: none"> • Area- identify the safe areas to operate in with the group • Boundaries- set clear boundaries for the start of the session with operating area but also attitude / behaviour • Capsize- ensure that the group are aware on what to do if they capsize • Doctor-medical information • Emergency- ensure the group are aware on what to do if there is an incident • Agree aims for the session • Check swimming ability
Main delivery	<p>Kit up the group and fit into kayaks</p> <p>Discuss boundaries and safe operating areas</p> <p>Agree behaviour and procedures for capsizes and also in emergencies</p> <p>Set up games and coaching sessions appropriate to the group's aims, suitable games may include:</p> <ul style="list-style-type: none"> • Tag games • Ball games • Raft games • Races • Movement and rescue skills <p>Coaching – staff to where possible, teach basic strokes, linking these to games. The paddle power syllabus can be included</p>
Summary	<ul style="list-style-type: none"> • Typically, reviewing here can include: <ul style="list-style-type: none"> ○ Personal skill acquisition ○ Personal challenge ○ Support and cooperation while paddling ○ Summary on water safety
Pack away	<ul style="list-style-type: none"> • Check the equipment and place back into storage as inducted • All damaged equipment taken out of service and reported to the Staff who have this ASR or to the Team Leaders
Other notes	<ul style="list-style-type: none"> •

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Normal Operating Procedures

Risk Assessment	
Hazards	Water Weather Rocks Games Kayaks / canoes / SUP Other users Pontoon staff SEA - sea trips and estuary's Rivers up to grade 3 Foundation Safety and Rescue Training SUP

Risk	Who it effects	How is this controlled?
Drowning	Guests Staff Public	<ul style="list-style-type: none"> All users wear good fitting Buoyancy Aids fitted by a trained instructor Briefing by a qualified instructor <ul style="list-style-type: none"> BC awards or Internal training (see manual) NEW for 2021 Life ring positioned at lake side Staff have rescue training BCU FSRT Staff are refreshed every 3 years with rescue techniques internally by a Level 3 coach Staff are first aid trained which covers CPR Equipment is maintained in a safe state Staff visually inspect all PFD before use PFD checked in line with safety check policy
Hypothermia from falling into the water	Staff Guests	<ul style="list-style-type: none"> Users have available wetsuits which will be issued as necessary Foil blankets available in first aid kits Staff are first aid trained Staff working on the lake have access to a radio and can call for assistance if needed Weather forecast is obtained daily and logged in the delivery diary; any concerns regarding the weather is passed to staff in the morning briefing OFFSITE- spare clothes and shelter carried
People receiving head injuries in shallow part of the quarry from a capsize	Staff Guests	<ul style="list-style-type: none"> Shallow areas of the lake are taught to staff during the lake quarry induction Shallow sections roped off
People falling onto the rocks and other	Staff Guests	<ul style="list-style-type: none"> Games played are suitable for the environment Good briefings to groups playing games

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boats while playing games resulting in injuries		<ul style="list-style-type: none"> Where necessary, helmets can be worn
Injuries to feet and ankles from uneven floor and objects on the bottom of the quarry	Staff Guests	<ul style="list-style-type: none"> Good fitting footwear must be worn (i.e. trainers)
Becoming trapped in the kayak during a capsize	Staff Guests	<ul style="list-style-type: none"> Training must be provided before using a spray deck. Instructors and guests to be confident in the user's ability to operate the spray deck from a capsize Spray decks to be checked in line with the safety checks Kayaks to be in line with safety checks to ensure there are no snagging potentials Footwear have no snagging points that could hinder the user during a capsize Craft visually checked by staff before use Craft check in line with safety check policy Staff are FSRT trained and can perform a suitable rescue if necessary
Overcrowding causing the instructor to lose line of sight with clients leading to injuries and poor intervention in the case of an accident	Staff and guests	<p>Ratios are set to the following:</p> <ul style="list-style-type: none"> Kayaks and SUP: 1:8 (2:12 with a competent assistant, see centre manager) Canoes 1:8 (2:12 with a competent assistant) Rafted canoes 1:12 operating a maximum of 2 rafted canoes
Manual handling injuries from moving the kayaks / canoes	Staff Guests	<ul style="list-style-type: none"> Instructors and assistants hold either the BCU coaching qualifications or the relevant personal performance award which covers how to move craft around safely or receive internal training Clients are encouraged to work together Instructors to promote good practice (straight back, lifting from the legs) where possible
Falling off the pontoon resulting in impact injuries and/or drowning	Staff Guests	<ul style="list-style-type: none"> No running on the pontoon Signs in place at the pontoon
Rafted canoes falling apart resulting in people falling into the water	Staff Guests	<ul style="list-style-type: none"> BFA has specific rafted canoe kits; these are to be used as the primary means for constructing rafts. The use of these will be covered in the canoe quarry induction
Colliding with other users causing damage and injuries to all users	Staff and guests	<ul style="list-style-type: none"> Staff to coordinate specific operating areas to avoid collisions Activities managed at the time of booking to reduce the risk of overcrowding

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Becoming lost off site leading to distress of the group	Staff and guests	<ul style="list-style-type: none"> Maps carried on all sessions Staff inducted to the area Limitations on location size set out in site assessments British canoeing coaches or equivalent can operate in a wider setting in line with their remittance with approval from the CM, see sea and white-water RA
Boats falling off the trailer leading to crush and head injuries	Staff and guests	<ul style="list-style-type: none"> Training provided by BC level 2 + coaches Team work encouraged and spotting Step ladder can be used if it is footed Only staff to tie high attachment points All knots checked by the driver
Other users leading to collisions and bad relations	Public, staff, guests	<ul style="list-style-type: none"> Good group control maintained Observe all and any rights of way, navigation and signposted instructions Always be courteous to all users of the river Maintain a respectful level of noise
Staff unable to assist clients in difficulty or in distress due to inability	All	<ul style="list-style-type: none"> Staff to be able to operate craft, these to include as a minimum: <ul style="list-style-type: none"> Canoe and kayak qualifications: <ul style="list-style-type: none"> BC 2 star Canoe only <ul style="list-style-type: none"> BC Explore in a canoe / BC canoe award Kayak only <ul style="list-style-type: none"> BC explore in a kayak / BC Kayak award Staff to be able to rescue by having a minimum BC FSRT Staff to be able to coach games and facilitate simple learning in very sheltered water by having a minimum of a paddle sport instructor qualification There is a raft of equivalent qualifications that can be approved by the CM on a case-by-case basis
SEA, sea trips and estuary's		
Tides, races, over falls and other sea conditions causing injury, harm, fatigue or distress to paddlers	All	<ul style="list-style-type: none"> When operating in sea conditions, the coach / leader must only operate within their qualification remittance. Examples of this can be found in the link below British Canoeing environmental definitions and deployment guide Remote site form must be submitted to the centre manager prior to activity and must be approved Towlines, spare clothes and spare paddles must be carried to prepare for a turn in the weather Maximum ratio of 1:6
Launching though surf leading to injuries	All	<ul style="list-style-type: none"> As per the above terms and reference, the maximum wave height is 1 M to crest. Careful consideration as to how to launch the group to take into account, sequences, setting clear boundaries, setting up actions in the event of a capsize and instructor location.

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		<ul style="list-style-type: none"> Helmets must be worn for all landings and launches through surf
Injuries at Sea including hypothermia and the loss of ability to paddle	All	<ul style="list-style-type: none"> The following equipment must be carried: <ul style="list-style-type: none"> Spare clothes First aid kit Survival bag / group shelter Spare paddles VHF radio Tow line (sea kayak) Helmets (Instructor choice)
Rivers up to Grade 3		
Specific river conditions leading to injuries including drowning, death and damage to limbs	All	<ul style="list-style-type: none"> When operating in White Water conditions, the coach / leader must only operate within their qualification remittance. British Canoeing environmental definitions and deployment guide BCU 4 and 5 star leaders <ul style="list-style-type: none"> 4 star leaders- can lead on grade 2 water 5 star leaders can lead on grade 4 water Remote site form must be submitted to the centre manager prior to activity and must be approved A means of towlines, spare clothes (if the groups personal equipment is not good enough) and spare paddles must be carried Maximum ratio of 1:6
Head injuries from capsizing, impacting rocks and general white water paddling	All	<ul style="list-style-type: none"> Appropriate, well-fitting helmets must be worn at all times. Instructors can allow breaks while on the river bank during lunch if necessary but an overall awareness must be acknowledged by the instructor to take into account terrain, other groups and unplanned rescues.
Equipment failing due to incorrect specification and or use	All	<ul style="list-style-type: none"> Equipment used must be suitable for white water use measured against the expected conditions Equipment for consideration should include: <ul style="list-style-type: none"> Kayak- bulkhead foot rests, manoeuvrability, strength, design (volume and designed use), paddler suitability Paddle- strength, weight Buoyancy aid- well fitting, floatation Helmet- strength and fit Foot wear- grippy and well fitting
Injuries worsening due to poor or ill prepared rescues	All	<ul style="list-style-type: none"> Staff must be appropriately qualified, see above Rescue equipment should be appropriate to the conditions but must include: <ul style="list-style-type: none"> Throw line(s) Means of towing Slings and Krab (possibly pulleys)
Foundation Safety and rescue Training (FSRT)		

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Manual handling related injuries though learning to rescue kayaks and canoes	ALL	<p>The training is designed to move people from being dependant on others while taking part in paddle sport to being independent. The process looks at educating people in a variety of rescues that includes:</p> <ul style="list-style-type: none"> • Moving and handling people • Moving and handling equipment including swamped canoes and kayaks with and without air bags <p>Both of these can be heavy and awkward and have a higher-than-normal risk of injury, especially to people with pre-existing injuries.</p> <p>FSRT at BF Adventure will:</p> <ul style="list-style-type: none"> • Make people aware of the risks before the course is set to take place • Encourage and demonstrate good manual handling practice • Educate learners to the risks throughout the course • Allow for reasonable adjustment where appropriate • Use kayaks and canoes with air bags for the majority of the training but will include some without air bags for the purpose of education • Encourage team work but also promote competence with self-rescue
Hypothermia though prolonged exposure to the water	All	<p>Course in the winter should be planned appropriately taking into account the weather and the available personal equipment, this includes:</p> <ul style="list-style-type: none"> • Informing learners prior to the event what equipment they need to bring • Lending out equipment • Modular sessions to limit exposure to cold water • Possible use of a swimming pool
Impact on heads to other boats during rescues	All	<p>Helmets are not compulsory, factors to be considered before deciding to wear a helmet are:</p> <ul style="list-style-type: none"> • Ability of the group – very inexperienced people may have a greater risk of head impacts • The type of learning – teaching towing is less risky than unconscious rescue so helmets can be used for a specific part of the session as opposed to the whole training • Weather – helmet may aid heat retention on cold days and also make it harder to hear people on windy days
SUP		
Falling off the sup onto shallow areas from a standing position and in a much less stable position than SOT,	ALL	<ul style="list-style-type: none"> • Helmets to be worn where necessary for example during games with groups of young people • Shallow areas roped off • Participants briefed on shallow areas and risks • Participants briefed to keep away from sides of the quarry

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kayaks and canoes leading to impact and head injuries		<ul style="list-style-type: none"> • Paddlers if very unstable to stay in the kneeling position
Staff inexperience leading to poor techniques, slow rescues or injuries to themselves and / or participants	All	<ul style="list-style-type: none"> • Staff must have a suitable qualification or training, these can be: <ul style="list-style-type: none"> ○ In house training by a competent and trained paddler ○ BC SUP conversion module ○ BC coach or performance or leadership award ○ Other SUP award at the discretion of the CM
Poor equipment leading to frustration and injury	All	<ul style="list-style-type: none"> • Staff will ensure the equipment is fit for purpose and make sure that fins are intact and the SUP is properly inflated •
Injuries and difficulties from the leash	Users	<ul style="list-style-type: none"> • BF will use ankle leashes as standard for its SUP sessions • Other leashes can be used as the quarry presents minimum risk from natural elements such as underwater debris and moving water. The likelihood of having to release the leash in the event of an emergency is very low
Damage to fins when paddle into shore	Kit	<ul style="list-style-type: none"> • Participants briefed to exit the board in knee deep water
Twisted ankles though exiting in shallow water	All	<ul style="list-style-type: none"> • Users briefed to exit carefully in knee deep water

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Normal Operating Procedures

Catapult

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Lower field, Barn, top field or in rafted canoes		
Assessed by:	Tony Baker (input from GCR)	Date	29/12/2022
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> NOP must be read and staff have observed at least 1 session
Ratios:	<ul style="list-style-type: none"> 1:16 (normally set at 1:12)
Safety factors	<ul style="list-style-type: none"> No one in, under, on top or less than 5 meters in front (when being fired) of the structure Structure must be free standing Poles moved in pairs or dragged Only tennis balls, bean bags etc to be used Targets to be used on field or catching is appropriate for the group
Operational Factors	<ul style="list-style-type: none"> Set up clear shooting areas Structure and knot checks to take place before firing by staff
Accessible Factors	<ul style="list-style-type: none">
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> Radio, FAK
Kit for Participants	<ul style="list-style-type: none"> Min of 4 poles, 6 ropes, 2 bungee, 1 x cloth and 5 x balls
Set up notes	<ul style="list-style-type: none"> Staff can carry poles by themselves

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Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • Planning skills as a team • Creating a structure as a team, cooperating and collaboration • Fun with simple competition
Time	<ul style="list-style-type: none"> • 45-90 mins
Equipment needed	<ul style="list-style-type: none"> • 4 x poles per group • 10 pieces of ropes • Firing bungees • Balls (min of 4 per team) • Guest kit
Set up notes	<ul style="list-style-type: none"> • An area big enough to fire and build i.e. Lower field, the barn or top field • The marquee can be used with the plastic balls • Set up a shooting line, arrange the equipment neatly and lay out scoring zones using rope
Briefing	<p>Introduce the aims of the session and the safety rules.</p> <ul style="list-style-type: none"> • Build rapport and get the group in teams of around 4-8 people. • NAMES and ABCDE
Main delivery	<p>Briefing</p> <ul style="list-style-type: none"> • Lifting, 2 minimum to pole • Never drop the poles • Do not build under the pole, build it on the floor and raise it • Always stand behind the structure when someone is firing • Knots to be checked regularly by instructors • Structure must be free standing <p>Demonstration Show the group how to lift the poles and also how to tie a simple square lashing</p> <p>Discuss building options, the usual designs are: A frame Triangle X</p> <p>Building Ask the group to design a free standing structure using the equipment provided that can host the firing bungee.</p> <p>Work with the teams to organise them into small team and help them tie the knots. The structure needs to be secure and freestanding so it's worth getting the knots tied well.</p> <p>The groups should be allowed time to be creative and explore their own designs. Staff should support and encourage and do everything possible to make their designs safe.</p>

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	<p>Games and competitions can be introduced to add value and fun to the session. These could include:</p> <ul style="list-style-type: none">• Accuracy challenges• Distance challenge• Cricket
Summary	<ul style="list-style-type: none">• A discussion based on how they worked together and how they could make improvements for next time
Pack away	<ul style="list-style-type: none">• Care should be taken when dismantling the catapult and all equipment should be packed away in preparation for the next group
Other notes	<ul style="list-style-type: none">•

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Normal Operating Procedures

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • Poles • Projectiles • Firing mechanism

Risk	Who it effects	How is this controlled?
Poles falling onto people leading in impact and head injuries	Staff, participants	<ul style="list-style-type: none"> • Staff running the session must have observed a whole session before running this session. This can be a training session as long as it has as part of it a full session included in it • People must not build the catapult “under or inside” the structure. Building mostly takes place on the ground then the structure is lifted into position • The poles are a manageable size appropriate to the group • Structure must be free standing before firing commences • People are not allowed to stand on top of the structures • Staff will monitor a maximum of 16 people, normal ratios are 1:12 • Staff will be first aid trained
Manual handling injuries and impact injuries from lifting and manoeuvring the poles	Staff and participants	<ul style="list-style-type: none"> • During session, all users are encouraged to carry the pole in pairs or drag them • Setting up the session staff are permitted to move the poles on their own. Staff must carefully decide how to do this safely. It is recommended that moving poles is done one at a time.
People being hit by projectiles leading to impact injuries and eye injuries	Staff, participants and other users	<ul style="list-style-type: none"> • Tennis balls and bean bags are the only things to be used, these are soft enough to minimise any injuries • In normal conditions, shooting at targets is best practice • Instructor can allow groups to catch the projectiles if they deem the activity suitable • Only the equipment supplied for firing is to be used and this consists of simple elastic / bungee and tea towels. This limits the potential force to a low and predictable level • People must not walk immediately in front of the catapult. A safe distance of around 5 meters is to be maintained

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		<ul style="list-style-type: none"> A clear shooting area is to be used such as the lower or top field that has good visibility and is manageable by staff
Being hit by the firing system (bungee and elastic) leading to bruises and eye injuries	Staff, Participants	<ul style="list-style-type: none"> The structure needs to be free standing, this means that no one is in front of the system while it is being fired People not shooting need to be behind the shooter unless they are catching Staff to check all knots before firing and offer advice as appropriate Staff to monitor all catapults structure and firing systems appropriate throughout the session

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Normal Operating Procedures

Climbing and Abseiling

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Adventure and Canoe Quarry		
Assessed by:	Tony Baker	Date	29/12/2022
Reassessed by	In 12 months from the above date		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> In house training and assessment – see RA for more details Climbing only SPA/RCI – can operate anywhere on site and off site at suitable risk assessed locations. See RA Other awards are acceptable, CM/TA need to approve these Accessible abseil – use of wheel chairs and tandem abseil have internal training Accessing by staff – internal training Internal qualifications need annual CPD (internal assessment) and re assess every 2 years (by TA)
Ratios:	<ul style="list-style-type: none"> 1:8
Safety factors	<p>General safety factors</p> <ul style="list-style-type: none"> Checks – visual kit checks when picked up from store, duality encouraged, pre climb FULL system checks, faulty kit isolated and reported to manager Helmets and harness provided for all unless there are designated safe zones Staff must protect themselves when setting up to prevent a fall from height All set ups as per training manual Visual check of venue / apparatus Access path to be briefed, team work encouraged, people with mobility need to walk around though hub area and avoid path Briefing to take place – See LP <p>Climb specific safety factors</p> <ul style="list-style-type: none"> Staff monitor 2 adjacent ropes max Belay – suitable techniques used see training manual Staff to be in control of inactive rope by tailing or use of knots at ALL times during climb and lower <p>Abseil specific safety factors</p> <ul style="list-style-type: none"> Staff to monitor 1 rope Participants briefed on access path SPA/RCI are able to abseil with personal safety “test” in place before the use of the prussic wall – see RA <p>Accessing through abseiling</p> <ul style="list-style-type: none"> See RA
Operational Factors	<ul style="list-style-type: none"> Station radio either on the instructor or on the side Hair, jewellery, toggles, tassels etc to be tied back and rings removed (where possible) Chest harnesses or fully body harnesses available for participants who require additional securing in their harness Set up in accordance with training manual

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	<ul style="list-style-type: none"> Prussic wall abseil – canoe in place with staff at the bottom with suitable PFDs and helmets
Accessible Factors	<ul style="list-style-type: none"> Accessible abseil ramp in place
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> Radio, FAK, rigging and belay equipment
Kit for Participants	<ul style="list-style-type: none"> Shoes, harness, helmet,
Set up notes	<ul style="list-style-type: none"> Visually check all equipment when taken from stores Faulty equipment to be isolated and reported to manager Full system check to take place if arriving at the activity that has been set up by someone else

Lesson Plan

Aims and objectives	<ul style="list-style-type: none"> To have a safe experience to challenge themselves physically and mentally to learn about climbing and how its risks are managed to have a positive experience
Time	<ul style="list-style-type: none"> 1.5 – 3 hours
Equipment needed	<ul style="list-style-type: none"> appropriate sized harnesses and helmets per participant rigging equipment rope belay devices ground anchors (optional)
Set up notes	<ul style="list-style-type: none"> sign out equipment Ensure that all set ups are neat and tidy with no unnecessary trip hazards. Visually check and function test all equipment Run rope through hands looking for lumps, frays and flat spots Lay out harnesses for the group to use Function test belay devices before first climb
Briefing	<ul style="list-style-type: none"> Introduce your self Challenge by choice Remove loose items, tie hair back and remove rings Listen to instructions Medical information Access paths
Main delivery	<p>Fitting of equipment</p> <ul style="list-style-type: none"> This should be done appropriate to the group and enable them to repeat the process in the future. A system of checking should be in

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	<p>place to ensure that all equipment is correctly fitted and to reassure the participant</p> <p>Introduction and demonstration</p> <ul style="list-style-type: none"> This should visually prepare the group for the challenge, showing them what is expected allowing them to make informed decisions while climbing or whether this is an appropriate challenge for them <p>Climbing</p> <ul style="list-style-type: none"> All care should be made to make the climbers feel at ease. While connecting to the system climbers are encouraged to set an aim / goal and work within their expectations of the experience. Activities can be played and techniques taught relevant to the groups and the session aims and objectives
Summary	<ul style="list-style-type: none"> A summary of the experience should follow to see if they met the aims of the session
Pack away	<ul style="list-style-type: none"> Reset the harnesses and helmets and return to the correct place Ropes coiled neatly and hung in store Rigs placed back on hooks in the store Log in the equipment and note any comments
Other notes	<ul style="list-style-type: none">

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Risk Assessment	
Hazards	<ul style="list-style-type: none"> • Equipment • Falling from height • Quarry edge • Loose stones • Unstable rock • Access path in quarry by the slabs • Belaying • Participants • Lowering off • 2 rope systems • Smoking • staff • Training wall • Accessing and route setting • Wheel chair abseiling • Tandem abseiling • Adventure barn • Route Setting

Risk	Who it effects	How is this controlled?
General climbing		
Equipment		
Equipment failing due to improper use leading to fall from height	Guests Staff	<ul style="list-style-type: none"> • Instructors to hold suitable qualifications that have competence to show that they have been trained and understand through an assessment of a technical expert (MIA) how all the equipment used for climbing is correctly fitted. • BFA use in house qualifications taught by SPA / RCI holders with experience of training staff, see the matrix after this risk assessment for more information • The syllabus has been approved by our external MIA assessor • Assessments completed by MIA as stipulated in the qualification matrix that follows this risk assessment • Staff have an annual internal update to refresh skills • The use of any new equipment is properly taught to staff by appropriate staff
Equipment failing due to improper checks leading to falls from height	Guests Staff	<ul style="list-style-type: none"> • As part of staff training and assessment staff are expected to demonstrate competence when checking equipment

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		<ul style="list-style-type: none"> Equipment visual check will be carried out upon taking the kit from the store before being issued to clients or set up Checks will be done before every use visually Detailed checks are to be done every at least every 6 months in line with manufactures recommendations, these will be logged for future reference. Damaged equipment / equipment which staff are unsure about will be removed from use and if necessary retired or sent away for a second opinion
Falling from height		
Participants falling from height while taking part in the activity	Guests Staff	<ul style="list-style-type: none"> All people operating on the activity will wear a safety harness connected to a safety rope / line managed by a competent instructor Group sized managed to 1:8 Maximum of 2 ropes to be supervised that are adjacent to each other
Equipment not fit for purpose failing leading to falls from height	Guests Staff	<ul style="list-style-type: none"> All equipment will be stored and kept in line with manufactures recommendations All equipment will be used as illustrated by its manufactures and for its intended purpose
System failing through inadequate set up leading to falls from height	All	<ul style="list-style-type: none"> 2 x large boulder used in set up, equalised Set up is simple to set up Staff are trained and assessed in this <p>new for 2023 east crag will have in place a fixed anchor system this will be 2 x petzl Bat'inox (14 mm x 100 stainless steel) equalised using 12mm swaged and tested wire rope slings these anchors will be pull tested annually</p>
Quarry edge		
Falling off the quarry ledge leading to impact injuries	Staff Guests	<ul style="list-style-type: none"> During set up staff make themselves safe when operating at the edge by using safety lines. We define 'at the edge' by anything within 1 meter to the edge BFA has pre made sets of identical rigging systems that include equipment for staff safety, anchor points and belay equipment. These are checked regularly, and taught to all staff by approved trainers in one single way on which it is to be used. All climbs are to be rigged using this system to ensure the safety of all associated users (with the exception of the training wall which has a bespoke and specifically trained system).

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		<ul style="list-style-type: none"> • Guests are instructed on a safe place to wait / view which will be at least 2 M from the cliff edge. For some groups this can be marked off using rope • When guests approach the edge, they need to be attached to a safety line to prevent a fall from height • Signs are placed on the entrance to the quarry to warn people about the risk of falling • Kitting up will take place well away from the edge
Loose stones		
People being hit by loose stones falling from the top of the quarry	Staff Guests Other users	<ul style="list-style-type: none"> • Helmets to be worn under the active climbing areas • Where necessary, safe “no helmet” areas will be briefed • Instructors will monitor the area for unauthorized access to the bottom of the site and if necessary, stop the activity • The top of be swept as necessary
Unstable rocks		
Large rock falls resulting in severe injury and death	Staff Guests Other users	<ul style="list-style-type: none"> • All known areas of instability are out of bounds and are sectioned off to all access • Any new areas of development are subject to extensive testing / external feedback
Access Path		
Slipping on the access path leading to cuts and bruises	Staff Guests Other users	<ul style="list-style-type: none"> • Staff always supervise groups in the quarry • Guests are made aware to walk on the path and not to run • BFA has a shoe policy eliminating the potential of injuries through inappropriate shoes such as flip flops, high heels etc.
Belaying		
Injuries through improper belaying leading to falls from height	Guests	<ul style="list-style-type: none"> • Staff are taught how to operate our belay devices (DMM bugs and Petzl Gri Gri) and are assessed by an MIA in line with manufactures recommendations • Staff are taught and are also assessed on how to use the devices with multiple ropes (a maximum of 2 climbers on separate safety and belay systems) • When guests belay, they will be taught (traditional or bell pull – Petzl Gri Gri only) how to use them and always have the rope backed up either by having it tailed by an instructor or through back up knots about every 3 M • Product manuals will be used during the training and will be available in the training and resource

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		folder for staff to make references to manufacturer's recommendations
Long hair and loose clothing becoming caught in belay device leading to distress from belayer and climber	Guests	<ul style="list-style-type: none"> Long hair needs to be tied back Scarves and other loose clothing need to be removed or secured away Staff to be trained on what to do if this occurs
Rings and watches becoming lodged into cracks on the wall or catching on the corner of holds leading to injuries such as de gloving and bruising	Staff Guests	<ul style="list-style-type: none"> Where possible rings should be removed while climbing If they cannot be removed then a clear briefing provided on what they need to use and not use and participants made aware of the potential hazards Watches to be removed if they are metal. Plastic and fabric strapped watches are OK to wear
Participants altering harnesses between climbs without the instructors knowledge leading to equipment failure and fall from height	Guests	<ul style="list-style-type: none"> Immediately before every climb, the instructor will check the entire system from (excluding the set up at the top of the climb when operating the bottom rope) from climber to belayer (including ground anchor when used) to ensure the equipment is still fitting correctly Guests are briefed not to alter the harness after briefing
Improper belaying by guests due to not understanding the briefing leading to falls from height	Guests	<ul style="list-style-type: none"> If guests are to belay, during the briefing instructors will clearly demonstrate how to belay Before the first climb (and subsequent others if appropriate) there will be a dry run on the ground where participants demonstrate competence by belaying the climber walking towards the wall When guests belay, they will always be tailed by another participant or be part of a bell pull system Instructors will tail participants or place back up knots in the rope about roughly every 3 M so in event of a poor lower off there is a system in place to arrest the fall before hitting the floor
Participants with no waist line / top heavy resulting in a poor fitting into the harness leading to falls from height	Guests	<ul style="list-style-type: none"> BFA have a selection of chest harnesses and full body harnesses which staff are competent to use and have been trained and assessed in.
Belayers struggling to control the climb and lower off heavy people leading to injuries to	Guests Staff	<ul style="list-style-type: none"> Where necessary the use of a ground anchor may be appropriate on bottom ropes On top ropes, an adjustment of the belay position may need to be made to ensure that no injuries occur to the instructor

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the climbers and belayer		<ul style="list-style-type: none"> When lowering using a Petzl Gri Gri, an additional Krab may need to be used. This technique will be taught and assessed before staff use this
Lowering off		
Lowering off too quickly resulting in impact injuries	Guests	<ul style="list-style-type: none"> All lower offs will be slow and controlled All lower off by guests will be in the control of the instructor either by directly belaying them down to the floor or by tailing the belayer with the aim of controlling the lower if necessary
2 rope systems		
Participants falling as the instructors are unable to operate 2 ropes properly leading to fall from height	Guests	<ul style="list-style-type: none"> Staff can only operate 2 ropes if they have been deemed competent through assessment Good group management Only to be used with suitable groups Minimum group size of 6 people
Smoking		
Ash and burns from smoking damaging the equipment resulting in the PPE to be less effective and visually poor	Guests Staff	<ul style="list-style-type: none"> No smoking is permitted on site or in any of the PPE
Off site		
Remote and different environments off site leading to injuries and equipment failure and fall from height	Staff Guests	<ul style="list-style-type: none"> All staff working off site must have the SPA / RCI assessed qualification All sites must be risk assessed and working off site procedures must be followed BFA internally qualified staff can belay as per their qualification if the safety systems created are exactly as they are at BF Adventure All set up and access to climbing must be supervised and checked by SPA/RCI at all time
staff		
Staff making mistakes leading to falls from height including impact injuries and or death	All	<ul style="list-style-type: none"> All staff trained internally and CPD is illustrated in the qualification matrix that follows this risk assessment
Competent assistant making mistakes though lack of experience leading to falls from height and or death	Clients	<p>The Competent Assistant (CA) is a progression award issues to staff and possibly young people who complete a full training course. The aim is to enable a pathway to gain experience in a realistic setting using the minimal skills. The following applies to competent assistants:</p> <ul style="list-style-type: none"> they do not count as part of the session ratios they are subject to the exact same supervision levels as other participants i.e. <ul style="list-style-type: none"> final departure checks are also carried out by the qualified staff

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		<ul style="list-style-type: none"> ○ knots and or tailing must be in place set and managed by the qualified member of staff ○ lowering off must be in control of the qualified member of staff
Slabs- top roping		
Falling off the quarry edge resulting in falls from height	Staff Guests	<ul style="list-style-type: none"> • Safety lines to be worn by ALL when operating on the quarry edge. (Participants 3 M and staff 1 M) • Walking is essential (not running) • Set ups to be as free from trip hazards as possible
Poor staff skills leading to fall from height or unsafe systems being used	All	<ul style="list-style-type: none"> • SPA or RCI staff only to operate top rope climbs
Stones being kicked off or thrown down hitting people on the bottom of the quarry resulting in impact injuries	Guests	<ul style="list-style-type: none"> • The group are told not to throw or kick stones over the quarry edge • Instructor to manage the group • Group are to wear helmets below the climbs
Difficulties in group management as the instructor is at the top and the group is at the bottom leading to situations and injuries	Guests	<ul style="list-style-type: none"> • Where possible group leaders, volunteers and additional staff will be used to manage the group • Where this is not possible the instructor must have a radio and is available to call for backup from office staff • Where there is no additional assistance then the instructor must maintain line of sight of the group and has set in behaviours and boundaries during the briefing
Participants attaching to the rope incorrectly and the instructor not noticing as a result from belaying from the top of the quarry resulting in falls from height	Guests	<ul style="list-style-type: none"> • The use of competent assistants or inducted group leaders can be used • There is an obvious squeeze test before any climbing that shows to the instructor's satisfaction that the system is correctly attached to the participant's harness
Participants adjusting their harness without the instructor being aware and not being able to fully check as they are at the top of the quarry resulting in falls from height	Guests	<ul style="list-style-type: none"> • The use of competent assistants will be used where possible • The harness check will take place at the top of the crag before they are due to ascend. • Participants are briefed to leave their harness alone • If there is any question as to whether the harness has been tampered with or altered in any way by the participant then they must return to the instructor for a re check
Falling off the top of the quarry after the		<ul style="list-style-type: none"> • The safety line will remain on until they are at a safe distance from the quarry edge

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climb as the safety line is taken off		
Abseiling		
Instructors lowering people incorrectly leading to falls from height	Guests	<ul style="list-style-type: none"> Instructors to have been trained and have passed a BFA abseil module
Participants losing control of the abseil and impacting the floor	Guests	<ul style="list-style-type: none"> Safety rope (dynamic rope with an Italian hitch) used by the instructor to prevent a fall from height.
Participants getting hair caught in the figure of 8 resulting in distress and pain	Guests	<ul style="list-style-type: none"> Long hair tied back The abseil rope is releasable meaning that the in the event of hair entanglement, the system can be undone, the hair released, the system retied and the abseil can continue as normal Instructors trained in this procedure
The abseil rope running over the gate of the karabiner and unscrewing it resulting in falls from height	Guests	<ul style="list-style-type: none"> Staff trained with this potential hazard during training and assessed on the correct method of attaching people to the rope is demonstrated repeatedly
Rope burns from descending too fast	Guests	<ul style="list-style-type: none"> All descents to be slow and controlled Safety line in place so the instructors can assist and manage this
Instructors abseiling without safety, losing control and falling from height	Guests	<ul style="list-style-type: none"> Only SPA/RCI assessed instructors can abseil with personal safety systems suitable for purpose and recognised within the SPA/RCI syllabus
Prussic wall - as abseil risk assessment with the following additions		
Incorrect abseiling technique taught leading to falls from height	guests	<ul style="list-style-type: none"> Staff with BFA abseil module and a site-specific induction by an approved trainer can operate abseiling on the Prussic wall In 2019, staff will only be assessed on the prussic wall, this will allow staff to operate on both BF Abseil sites
Slipping on the descent path and falling to the ledge resulting in impact injuries	Guests Staff	<ul style="list-style-type: none"> The group briefed to take it slow and descend in a controlled manner Unconfident people can be coached by the instructor or roped down (SPA/RCI assessed people only) All participants need a "test" before attempting prussic wall to assess ability. The access path in ADQ and or the temple run should be used for this
Participants descending into water at the end of the abseil	Guests	<ul style="list-style-type: none"> A canoe qualified instructor will meet participants at the bottom in a rafted canoe PFD's will be fitted to participants on entering the canoes

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resulting in possible drowning		<ul style="list-style-type: none"> The safety line to remain attached until the PFD is attached
Falling into the quarry / capsizing into the quarry while untying the abseil at the bottom and returning to the bank safely	Guests Staff	<ul style="list-style-type: none"> See canoe risk assessment for control measures
Slipping on the top of the prussic wall when it's wet resulting in distress and cuts / grazes	Guests	<ul style="list-style-type: none"> The session is changed / cancelled or sitting on the edge and turning over as an alternative approach is adopted
Participants and staff falling into the water from the top of the quarry resulting in impact injuries and drowning	Guests and staff	<ul style="list-style-type: none"> All members of staff and participants on the lower platform will be attached to the stakes via a safety line
Prusiking up the wall and becoming stuck	Guests	<ul style="list-style-type: none"> This is only run using MIA or instructors with higher qualifications, who will have the ability to carry out a rescue from above
Staff Accessing the climbing and abseiling sites using abseiling techniques incorrectly leading to injuries and falls from height	Staff	<ul style="list-style-type: none"> All accessing never to be done in isolation Access harness to be used Systems to be releasable so staff can be lowered to the ground in an emergency or a mean of rescue like the VFC rescue system to be in place and staff trained and assessed in the rescue Back up knot pre placed to prevent a fall from height due to faulty equipment or incorrect use of equipment can be used Staff encouraged to belay if appropriate 2 x anchor points to be used to create a working line and a fall arrest line Staff are individually approved by the centre manager
Accessible Abseiling		
Wheel chair falling apart due to incorrect attachment to the safety and abseil line	Guests	<ul style="list-style-type: none"> The primary safety is attached to the participant and not the chair, this allows a margin of safety if the chair's structure collapses, then the participant does not result in a fall from height Staff are trained and a clear picture is displayed on the correct technique used to run the abseil with a wheel chair
Incorrect attachment for tandem abseils leading to falls from height	Staff, guests	<ul style="list-style-type: none"> Staff are trained on how to do this A clear and simple technique and picture are displayed to remind trained staff on how to set up and operate this

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Adventure Barn		
Impacting the floor due to rope stretch or incorrect belaying leading to ankle and other impact injuries		<ul style="list-style-type: none"> • Staff taught that belaying must carefully monitor the first 3 meters with the belay rope being kept tight to allow for rope stretch • Rubber matting to be installed
Topping out leading to distress when lowering or higher fall factors		<ul style="list-style-type: none"> • The anchor point hang below the top of the climbs meaning that the belay team should be able to prevent this • Participants briefed to stop climbing when they can touch the anchor chains
Belayers being pulled off position due to climbers being significantly heavier leading to impact injures and mistakes on belaying		<ul style="list-style-type: none"> • Ballast bags (new for 2019) will be used and ground anchors in a semi direct configuration
Unauthorised access to the climbing wall possibly resulting in falls from height with injuries including death		<ul style="list-style-type: none"> • Doors shut when in use • No entry signs in place • Doors locked when not in use
Anchor points and or the structure failing leading to falls from height and or death		<ul style="list-style-type: none"> • Wall built by professional company • Technical drawing provided • Annual testing by High Time
Injuries though accessing the climbing wall in the adventure barn (maintenance, route setting, tightening of grips etc.) leading to falls from height, injuries and discomfort from hanging in a fixed position and instructors stuck at height	Staff	<ul style="list-style-type: none"> • If possible, use a footed ladder to route set (see maintenance RA for the use of ladder) • When accessing the tower in isolation and using ropes: <ul style="list-style-type: none"> ○ a releasable working line should be set up, this could be self-belaying on gri gri or ID ○ A redundant system must be in place. This could be a separate bottom rope system with a 2nd instructor or a fixed line with a suitable fall arrest system ○ Another 2 members of staff should if possible be present or be on hand to assist in an emergency. A suitable mean of raising help such as radio or mobile phone should be set up) • The access harness should be used for the comfort of the instructor and to avoid injuries from hanging in the harness for long periods. The redundant system should be set on the chest anchor point or the rear anchor point

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		<ul style="list-style-type: none"> 2 additional instructors should be around in the event of a rescue being needed. In the event of a rescue, once instructor should be belayed up and they should attach a separate bottom top rope system to the casualty. Their new belay system should then be loaded and weight bearing and their stuck system released and the casualty lowered down in the new system Staff to receive in house training to include: <ul style="list-style-type: none"> Use of ladder and belay setting up a static releasable working line
Accessing and route setting Staff accessing the wall for maintenance or repairs		
Falling from height resulting in impact injuries or death	Staff	<ul style="list-style-type: none"> staff accessing the wall for purposes other than facilitating recreational climbing must operate with a redundant system and have a rescue plan staff must not operate alone in these tasks <p>Simple wall maintenance (spinners, replacing tracer cord etc)</p> <p>If tasks can be carried out through climbing the wall or by use of a ladder and the task be carried out can be done by using the wall as the primary work position system then this can be carried out using the traditional climbing bottom rope system as the redundant fall system as long as the belay rope remains tight to have a fall factor of 0. The rescue plan is simply a lower off.</p> <p>Complex tasks that involve hanging, suspension (install of new hand holds, loose rock removal, re routing)</p> <ul style="list-style-type: none"> Access harness to be used for comfort Staff should be competent for the task at hand The primary system can be an abseil system using the WAR equipment The primary system should be releasable to allow for a lower off in the event of a rescue The back up system can be a separate belay system or a fall arrest system that has a mechanism to lower people to the ground (or a place that can have a rescue facilitated) If conditions allow, pick of rescues can be used if they fit the same conditions of a VF rescue and the staff on stand by to perform a rescue are competent in this rescue.

In house Staff Qualification Matrix:

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Qualification	Trained by	Assessed by	Validity	remittance
BFA single Rope	SPA/RCI	MIA	3 years reassess + Internal annual internal CPD	Operates single rope only from the bottom
BFA double Rope	SPA/RCI	MIA	3 years reassess + Internal annual internal CPD	Operates a double rope only from the bottom
BFA Abseil module	SPA/RCI	MIA	3 years reassess + Internal annual internal CPD	Allowed to abseil on accessible ramp (and prussic wall is assessed post 2020)
BFA tandem Abseil				
BFA wheel chair abseil				

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Normal Operating Procedures

Low Ropes

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Site specific low ropes course		
Assessed by:	Tony Baker	Date	30/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> BFA Adventure quarry trained An Adventure Quarry sign off will be sufficient to run the low ropes providing the instructor has experience on the low ropes course and has read and signed this NOP 2 year refresher Third party users may use the low ropes if they have had appropriate prior experience an induction by a BF Adventure member of staff and have read this NOP
Ratios:	<ul style="list-style-type: none"> 1:12 2:16 with a competent assistant Additional support / spotters may be required for some sessions
Safety factors	<ul style="list-style-type: none"> Participants must be spotted on all activities but not the platforms Jewellery such as large ear-rings and bracelets to be removed Pole crossing -Max of 2 people per peg Foot wires – use arches of foot, good shoes to be worn, 4 people max per wire, face the middle of the apparatus Trust V – 2 people a time, do not interlock fingers Cargo net – feet below their head height, 3 point of contact, max of 4 people on the net Multi vine and tension traverse– face inwards, spotter of the “swing side” of participant on tension traverse Rope swing – one person per swing
Operational Factors	<ul style="list-style-type: none"> Participants must be briefed to have hold of a person, pole or rope at all times Group to stay with 3 pole span Staff to use CLAP principle throughout
Accessible Factors	<ul style="list-style-type: none"> Consider how many metal poles are on offer for the pole crossing. Consider direct intervention – the right amount will need to be constantly assessed to offer the right amount of challenge for participant achievement
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> FAK, Radio
Kit for Participants	<ul style="list-style-type: none"> Poles from store
Set up notes	<ul style="list-style-type: none"> Visually check apparatus and ground cover before use

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- Other apparatus such as buckets can be used and should be assessed by staff for its suitability

Lesson Plan

Aims and objectives	<ul style="list-style-type: none"> • To encourage team work • To develop cognitive and communication skills • To be fun and engaging • To be safe
Time	<ul style="list-style-type: none"> • 1.5 hours (adaptable as needed)
Equipment needed	<ul style="list-style-type: none"> • All equipment is already set up, except the pole crossing and the tyres and plank • Pans for the water challenge (as needed) • Blindfolds (as needed)
Set up notes	<ul style="list-style-type: none"> • Check the low ropes before use • Visual check of apparatus before use • The elements of the low ropes that require setting up are the pole crossing (the metal poles should be readily available) the tyre and planks (planks should be checked to ensure they are still usable, and the station set up accordingly) and the rope swing (depending on group ability the platforms can be moved varying distances to add or lower the challenge as needed.)
Briefing	<ul style="list-style-type: none"> • Introduce yourself and other staff as necessary • Introduce 'Challenge by Choice' • Safety rules, stay in area, listen to instructions, any other instructions relevant to session, refer to risk assessment and training, movement on wires, movement as a group, spotting, • Medical information
Main delivery	<ul style="list-style-type: none"> • Instructors to place themselves in a position of maximum usefulness – i.e. dynamically look at the risks and place themselves where they can best be managed. • Utilise other staff/ volunteers in accordance with the above. Prioritise elements with a higher element of risk (consider height factor) • Guests can be used to aid the safety of the session through appropriate dynamic training by the instructor (spotting, direct encouragement through the use of offering a hand for balance, etc.) • Dependant on the groups and their aims for the day. The low ropes course can be used so each element flows continually, or can be used in isolation. Each element offers its own challenges and so can be used to build confidence in participant's abilities and skills. Each element can be repeated as much or as little as needed for the desired outcome. • Each element should have a small, dedicated safety brief. This can be instructor led or guest led, however all relevant areas of safety highlighted in the NOP and risk assessment must be covered, and understood by all participants and observers. • Use of games and extra challenges <ul style="list-style-type: none"> ◦ Water carrying challenge; • Standard challenge

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Summary	<ul style="list-style-type: none"> This can be done to fit the group's needs. Reviews can take place throughout the session – and consider reviews during elements that groups appear to be struggling on. A session review can take place at the end of the session
Pack away	<ul style="list-style-type: none"> All equipment used to be returned to the correct storage area.
Other notes	<ul style="list-style-type: none">

Risk Assessment

Hazards	<ul style="list-style-type: none"> General, including postman's walk Pole crossing Foot wires Trust V Postman's walk Vertical cargo net Multivine Rope swing Counterbalance
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Risk	Who it effects	How is this controlled?
General , including postman's walk		
Injuries from poor instruction based on staff lack of knowledge leading to falls and impact injuries	All users	<ul style="list-style-type: none"> Staff will have received one of the following training / inductions: <ul style="list-style-type: none"> Internal training session with observation Adventure Quarry sign off with an induction to the low ropes course including reading the NOP Previous experience of working on a low ropes course which is approved by the Centre manager with an induction including reading the NOP
Equipment / apparatus failing leading to falls, impacting injuries and or crush injuries	All users	<ul style="list-style-type: none"> Equipment built by BF staff with experience of building / maintaining low rope activities Low ropes checked regularly and finding recorded The course is inspected annually by High Time and recommendations implemented
Falling from apparatus awkwardly leading to twisted ankles, neck and back injuries	Guests	<ul style="list-style-type: none"> Good briefing and suitable behaviour i.e. Step down instead of falling down Soft ground cover to be in place Apparatus set at suitable height Consideration of spotters depending on group and abilities Users briefed to always have hold of a person, a pole or someone holding to a pole Lunging for secure points discouraged

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Normal Operating Procedures

Overcrowding on apparatus leading to structural failure or participants falling from lack of space	Guests	<ul style="list-style-type: none"> • maximum users size (see later in risk assessment) must be adhered to at all times • Group management advised, this could be but not limited to: <ul style="list-style-type: none"> ○ The group to stay within a 3 pole gap ○ 1 person move at a time ○ Groups to spot every move <p>Maximum of 4 people per wire and 8 people per platform</p>
Inappropriate use of equipment leading to impact injuries	Guests	<ul style="list-style-type: none"> • instructor briefings to include no jumping / launching to elements, • if necessary, participants are shown how to use the apparatus • clear briefings or agreements between the groups and the instructor detailing correct methods of operation • monitoring by staff and reinforcement of rules
Poor positioning and or awareness of the instructor resulting in them not being able to intervene resulting in falls	Guests	<ul style="list-style-type: none"> • Instructors to maintain line of sight and a position of maximum usefulness • Instructors to remain ready to interact i.e. no hands in pockets or on the phone etc.
Watches, necklaces and bracelets being grabbed by other participants resulting in breakages and minor injuries	Guests	<ul style="list-style-type: none"> • Where appropriate, jewellery should be removed prior to taking part on the low ropes
Rope burns from slipping while holding ropes	Guests	<ul style="list-style-type: none"> • Appropriate briefing • Appropriate challenges set • Support provided for struggling participants
Pole crossing		
Falling from height by placing poles in the high level holes leading to impact injuries	Guests	<ul style="list-style-type: none"> • Soft ground covering • Participants encourages to use lower holes and remain below the instructor waist height
Slipping and impacting the static vertical wooden poles with their bodies resulting in impact injuries	Guests	<ul style="list-style-type: none"> • Participants encouraged to use 3 points of contact • Participants are advised to support each other • Participants advise not to “over stretch” to avoid soft tissue injuries • 2 people per peg maximum
Foot wires		
Slipping from the wires resulting in impact injuries	Guests	<ul style="list-style-type: none"> • Participants advised to walk on the wires with toe to heel or using the arches • Participants advised to take their time

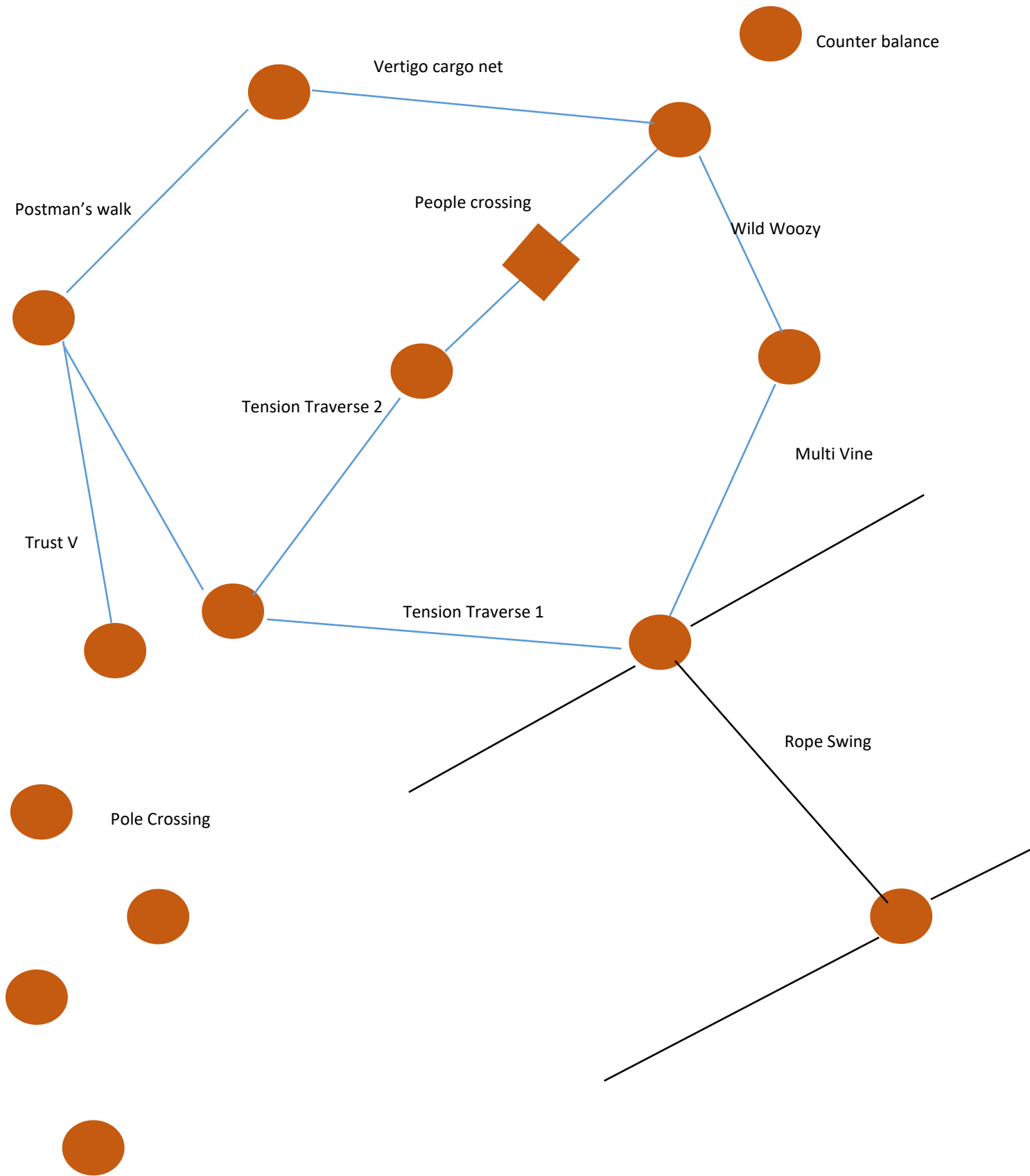
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		<ul style="list-style-type: none"> • Appropriate shoes (as per footwear policy) are to be worn • 4 people max per wire • Participants on foot wires advised to face towards the middle of the course
Trust V		
People falling onto the wires, leading to impact injuries and grazes from the wire	Guests	<ul style="list-style-type: none"> • The activity must be done by 2 people at the same time • People must stay on a single wire and not walk on both at the same time • Fingers must not be interlocked, an appropriate grip is palm to palm
Vertical cargo net		
Falling from height resulting in impact injuries	Guests	<ul style="list-style-type: none"> • Participants are not to have their feet above head height of the instructor • Advice provided to have their hand on the rope at their head height and to have 3 points of contact if necessary • Advice provided to have their body and weight close to the net • 4 people maximum on the net at any one time
Rope burns from slipping with the net	Guests	<ul style="list-style-type: none"> • See above
Multivine, tension traverses (as general +)		
pendulum swing resulting people and or apparatus causing injuries	Guests	<ul style="list-style-type: none"> • Activity designed to minimise injuries • People advised to face inwards meaning that a potential fall will be away from (out from) the apparatus • Spotting required by staff and or other users
Rope swing		
Participants unable to hold body weight and sliding down the rope resulting in rope and friction burns	Guests	<ul style="list-style-type: none"> • Knot placed in the rope to aid them holding their weight • Spotting and assistance can be provided where appropriate
Impacting group members who are on the platform and knocking them to the floor while swinging across	Guests	<ul style="list-style-type: none"> • Challenge appropriate to the group • Group behaviour monitored and managed • Instructor to spot if necessary
Overloading the rope	Guests	<ul style="list-style-type: none"> • One per on the rope at any one time
Fall from height from participants climbing the rope	Guests	<ul style="list-style-type: none"> • Clear challenge set that does not include climbing the rope • Instructor supervision • Clear briefing

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Normal Operating Procedures



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Normal Operating Procedures

Nature Trail

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe quarry		
Assessed by:	Tony Baker	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> None, this is open to the public
Ratios:	<ul style="list-style-type: none"> NA
Safety factors	<ul style="list-style-type: none"> Signs placed at various points with map, and other risk assessed factors
Operational Factors	<ul style="list-style-type: none"> At users discession
Accessible Factors	<ul style="list-style-type: none">
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Risk Assessment

Hazards	<ul style="list-style-type: none"> Slips/Trips/Falls Falls from height Drowning Safeguarding Incident Theft/Vandalism (and/or access to non-public areas) Stings/Bites Dogs/Pets suffering injury Cuts/Bumps/Bruises from wild 'play areas'
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Risk	Who it effects	How is this controlled?
Slips/Trips & falls on Nature Trails	All users	<ul style="list-style-type: none"> Clear signage/map at start of Trail giving guidance that this is not a level access route "Caution uneven ground, Steps and Muddy/Slippery areas" Children & Animals to be supervised at all times. Further signage at areas of higher risk Trail guide to clearly state that caution must be exercised when accessing trails and that usage involves some risk – to be repeated across websites and all social media channels
Falls from Height	All users	<ul style="list-style-type: none"> Clear signage at start of trail warning of unfenced cliff edges and that "All users must

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		<p>remain upon marked trails” & “Children & Animals to be supervised at all times”</p> <ul style="list-style-type: none"> • Marked/Mapped trails to avoid areas of high risk • Clear signage and visible barriers at areas of high risk
Drowning	All users	<ul style="list-style-type: none"> • Clear signage at start of trail warning of unfenced deep water and that “All users must remain upon marked trails” & “Children & Animals to be supervised at all times” • Marked/Mapped trails to avoid areas of high risk • Clear signage and visible barriers at areas of high risk
Safeguarding Incident – Member of the public taking inappropriate pictures and/or inappropriate activity with other site users	Other site users	<ul style="list-style-type: none"> • Trails established to minimise risks of users entering other activity zones, supported by clear signage and ‘No entry’ areas’ • Café, BFA & VFC staff to activity challenge anyone in non-public access areas whom does not have a valid ID badge and/or are with an Instructor • Signage to indicate that no pictures should be taken of non-family group members without permission • Café, BFA & VFC staff to activity challenge anyone taking pictures of unrelated individuals, particularly young people
Theft Vandalism	Damage/Loss of site facilities and infrastructure	<ul style="list-style-type: none"> • Trails established to minimise risks of users entering other activity zones, supported by clear signage and ‘No entry’ areas’ • Café, BFA & VFC staff to activity challenge anyone in other areas whom does not have a valid ID badge and/or are with an Instructor • Access to trails limited to fixed hours when site is in operation and staff available to minimise risks of trespass
Stings/Bites – Insect Stings and Adder bites	All Users	<ul style="list-style-type: none"> • Clear signage and barriers around honey bee areas • Clear warning on trail guide and main maps regarding potential presence of Adders • Dogs to be kept on leads/under control

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Dogs/Pets suffering Injury	Pets	<ul style="list-style-type: none"> • Clear signage requesting that dogs are kept on leads • Clear signage indicating that there is unfenced cliff edges & deep water • Café, BFA & VFC staff to activity challenge anyone with free roaming dogs in café reception areas and at Canoe Quarry viewing area
<p>Cuts/Bumps/Bruises from wild 'play areas'</p> <p>Areas consist of unmanaged low woodland and scrub with a mixture of small and large granite boulders, leaf litter, branches, brambles and gorse et al</p>	Children	<ul style="list-style-type: none"> • Clear signage warning that areas are unmanaged "Children must be supervised and play at own risk" • Areas checked for dangerous materials such as broken glass/rubbish
Getting lost leading to distress and possible injury	All users	<ul style="list-style-type: none"> • Directional signs placed around the course • Map located at the start

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Normal Operating Procedures

Quarrysteering

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe quarry		
Assessed by:	Tony Baker	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> • BF Quarrysteering Instructor – able to lead a group of 8 (or up to 16 with a Quarrysteering trained member of staff / quarry swim instructor) • BF Quarrysteering competent trained member of staff – Able to support the delivery of a group of 8-16 alongside a BF Quarrysteering instructor • Quarry swimming – able to run a session including jumps classed as shallow water entry as per the ratios below. This award is issued for staff not wishing to use the deep water entry jumps • Update every 3 years • Extensive and recent Coaststeering experience can be sufficient with BFA induction with TL / CM.
Ratios:	<ul style="list-style-type: none"> • 1:8 (maximum group size of 16 people) • 2:16 -this can include an competent assistant • RC- 1:12
Safety factors	<ul style="list-style-type: none"> • Group briefing – see LP • Visual check of rocks and quarry falls looking for signs of instability • Shallow water jumps in all areas except the 3 platforms on the back wall • Warm up in shallows, assess swim ability • Shallow water jumps practiced and competence gathered before moving to deep water entry jumps • If water drops below the bottom yellow marker see advice from CM/DM • PPE fitted and checked before going onto water • Medical conditions checked – back injuries, epilepsy, asthma and heart conditions are of particular importance to be aware of.
Operational Factors	<ul style="list-style-type: none"> • CLAP applied throughout activity • Rafted canoes and kayaks can be used during the activity. NOP specific to the craft need following and impact areas need to kept clear at all times and well managed.
Accessible Factors	<ul style="list-style-type: none"> • Floating objects can be use to add swimming • Rafted canoes can be used as a mobile base of operations • Swim line can be set up using the waist mounted throw line to add people getting round the quarry
EAP	<ul style="list-style-type: none"> • See EAP at the start of this document • Group briefed on how to contact help should the instructor become injured

Equipment and Venue

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Normal Operating Procedures

Safety equipment	<ul style="list-style-type: none"> • FAK, Radio (can be left on the side), whistle, allen key • Waist mounted throw line • In cold conditions, blankets, shelters, clothes and warm drink to be taken to site
Kit for Participants	<ul style="list-style-type: none"> • Shoes / wetsuit boots to be worn • Wetsuits, PFD, helmet
Set up notes	<ul style="list-style-type: none"> • Visually inspect equipment before issue

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • The have an aquatic adventure • To face and address risk in a managed and controlled environment • To be fun and rewarding • To challenge people • To operate in small groups
Time	<ul style="list-style-type: none"> • 3 hrs.
Equipment needed	<ul style="list-style-type: none"> • Wetsuits • PFD's • Shoes • Helmets • First aid kit • Radio • Throw line • Survival bag in cold weather • Whistle • Damaged equipment to be isolated • Shorts for staff and clients • Dry bag for storage
Set up notes	<ul style="list-style-type: none"> • Check rescue equipment • Check instructor and rescue kit • Charged radio • Waterproof bag packed with emergency kit • landing zones- obstructions • Check all client kit, move from drying room if necessary • Check medical info if available <p>Visual checks of the following areas on arrival during a sessions to take place:</p> <ul style="list-style-type: none"> • All platforms • All rock features • Grips on the grey rainbow • Platforms and bolts
Briefing	<p>This part is essential and is aimed at making participants become well informed and comfortable with their equipment and the session.</p> <ul style="list-style-type: none"> • Acceptance of risk. All participants should have at this point read and signed or have had this done on their behalf by their parents / legal guardians. This is the best opportunity to talk to people to explain that:

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	<ul style="list-style-type: none"> ○ This involves movement over rock, climbing up rock, swimming and jumping into water ○ The risks are real but managed ○ The session is progressive, the aim to teach and practice safe strategies and develop competence ○ At all time you have choices and will never be asked to do things you are uncomfortable with. • Medical information. Talk to the group and check against the medical form. • Session overview and what will be explained and when • Kitting up and toilet time <ul style="list-style-type: none"> ○ Watches , jewellery and rings removed
Main delivery	<p>Part 2- Warming up, assessing ability and confidence building</p> <p>This part of the session should last around 30 minutes</p> <ol style="list-style-type: none"> 1. Check equipment fitting well on every person 2. Explain cold water shock <ol style="list-style-type: none"> a. Breathlessness b. Keep calm c. Breath slow d. You will warm up 3. Support the person behind you and work as a team 4. How to hold hand (wrist to wrist) 5. Signals <ol style="list-style-type: none"> a. Come to me b. Directional c. Whistle blasts <ol style="list-style-type: none"> i. 1 whistle blast- look at the instructor ii. 2 whistle blast- stop what going on, safely get into the water and group up iii. 3- as 2 but swim back to the beach 6. Action in instructor injury <ol style="list-style-type: none"> a. Radio of office, location of radio and best place for signal 7. Games and warm up around the stack <ol style="list-style-type: none"> a. Washing machine b. Jumping off jetty, shallow water entry c. Traversing jetty d. Games (tag, stuck in, races etc.) 8. Assess competence of group, check ability and adjust plans accordingly <p>Part 3- training and practice sessions (1 hour)</p> <ol style="list-style-type: none"> 1. Safe falling (stack) 2. Shallow water entry (the ledge) 3. Introduction to deep jumps (scramble ledges) 4. Deep water Traverse (goal post area) 5. Technical jumps and oak tree plunge

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	Part 4- Prussic wall jumps (1 hour) <ol style="list-style-type: none"> 1. Briefing from the jackdaw boulders <ol style="list-style-type: none"> a. Landing zones b. Entry to the walls c. Ledge safety d. Progression from ledge 1 to 2 to 3 e. Safe exit <ul style="list-style-type: none"> • Demonstrations and jumping
Summary	<ul style="list-style-type: none"> • Debrief on the session, learning points can include: <ul style="list-style-type: none"> ○ Personal challenge ○ Team work ○ Support structures ○ Empathy ○ Challenge and comfort zones
Pack away	<ul style="list-style-type: none"> • Wash and hang all suits
Other notes	<ul style="list-style-type: none"> •

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • Cliffs • Slips and trips • Rock falls • Terrain • Jumping • Water • Group • Other users • Weather • Communication • Rescues • Swimming • Instructors • Ledges • Climbing grips

Risk	Who it effects	How is this controlled?
Cliffs		
Falling off cliffs resulting in falls from height, significant injury, spinal injury and death	Guests Staff	<ul style="list-style-type: none"> • Good group briefing to include safety around quarry • Route does not at any time go near the top of a quarry • Good group management
Slips and trips		

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Normal Operating Procedures

Slipping and tripping on tricky terrain including the access path resulting in cuts, grazes and falls from height	Guests Staff	<ul style="list-style-type: none"> • Good briefing • Old trainers or secure shoes with good grips to be worn by everyone • Support offered by instructors • Teamwork encouraged • No climbing to happen where there is a high risk of impact as a result from a fall • Instructor and where appropriate group support and or spotting to be encouraged to increase safety • Group numbers managed to a sensible level (max of 16 participants) • Enough staff to supervise participants 1:8
Terrain		
Rock falls resulting in impact injuries	Guests Staff	<ul style="list-style-type: none"> • Areas of instability avoided if possible, there are no known areas we are aware of at present • Helmets to be worn at all times
Participants hitting their head during the activity	Guests Staff	<ul style="list-style-type: none"> • Helmets to be worn and correctly fitted • Activities appropriate to the group
Injuries sustained because the instructor does not know the site	Guests Staff	<ul style="list-style-type: none"> • All staff have site specific training / induction depending on previous experience • Lesson plans taught / read and understood by staff
Contributing significantly to local erosion through over use and damaging the environment	Environment	<ul style="list-style-type: none"> • BFA will aim to have as little impact on the environment as possible by: <ul style="list-style-type: none"> ○ Limiting group to 16 people in size ○ Operating sustainably and responsibly ○ Encouraging this behaviour with all groups ○ Any developments occur in areas where activity is normal ○ Not over developing the site allowing ample space for local wildlife to flourish ○ All work is done with consideration to previous historic use and aesthetically low impact using natural coloured materials ○ all fitting screw into internal threaded sockets meaning that if the activity is changed or removed then the impact of the wall is low and the materials left behind are all flush with the wall and visually very low impact ○ no harmful chemicals such as concrete will be used in the water that may pollute quarry

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Normal Operating Procedures

Cuts and scrapes from the terrain	Guests Staff	<ul style="list-style-type: none"> It is suggested that guests to wear wetsuits Guests made aware of this at the start of the activity Shoes must be worn which have good soles
jumping		
Injuries from jumping and hitting submerged obstacles resulting in impact and potentially spinal injuries	Staff Guests	<ul style="list-style-type: none"> Low impact jumps to be identified Instructors to introduce the correct jumping protocol and practice this is a controlled environment Warm up and training area is used on every group to establish good jumping technique Sufficient depth of the water and rock hazards calculated before jumping is allowed Good communication between staff and group to ensure jumping is well managed Staff training Yellow indicators on the stack illustrate the depth of the quarry. When water drops below the bottom marker, the session needs adjusting to meet the groups needs. This should be coordinated by the CM/DM
Injuries from jumping into water poorly resulting in bruising, discomfort and unconsciousness	Staff Guests	<ul style="list-style-type: none"> Jumping protocol taught and practiced before jumping off anything high The session is progressive to allow for practice and competence to be established A wide selection of jumps are offered allowing participants a choice of heights Challenge by choice allows an opt out for every part of the activity Jumps taught are: <ul style="list-style-type: none"> Shallow jumps- arms out knees bent Deep jumps- arms crossed, feed first knees bent Other “fun jumps” can be taught but can only happen in deep water locations, refer to training for suitable spots
Jumping / slipping / falling onto other and or waiting participants leading to head / spinal and impact injuries	Staff Guests	<ul style="list-style-type: none"> All participants to wear helmets Impact zones at all time to be managed and to be kept clear Practice session at the start to reinforce this On large jumps, a clear system on when to access the access climbs is established. One is allow to enter the impact zone unless the person in front of them in safely on one of the platforms. Staff trained on safe recovery of participants who may incur injuries, these include small issues that

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		may make swimming harder, to issues involving a fully unconscious casualty
Water		
Hypothermia from immersion of the water	Staff Guests	<ul style="list-style-type: none"> • Full wetsuits to be worn • Foil blankets in first aid kits as well as survival bags • Mobile phones and or radio on session and left at the entry point for the canoe quarry • Group briefed on location for phone and or radio for in the event of an emergency they can be enabled to make an emergency call
Cold water Shock	Staff, Guests	<ul style="list-style-type: none"> • This is explained in the training area before entering the water, participants are to remain in the shallow training area until they are happy to progress with route in regards to being suitable warm and comfortable
Waves knocking people off their feet resulting in impact injuries	Staff Guests	<ul style="list-style-type: none"> • The activity only takes place in our quarry, this is not an issue
Drowning	Staff Guests	<ul style="list-style-type: none"> • Wetsuits have inherent buoyancy • The training area establishes actual swimming ability through activities. Instructors will work with participants who are struggling swimmers to develop strategies which may include: <ul style="list-style-type: none"> ○ Towing ○ Use of a sit on top (BCU staff only) ○ limitations on what parts of the water they can access ○ alteration of the session plan ○ waist mounted throw line to set up swim lines • Well fitted buoyancy aid to be worn by all • Staff trained in rescues and people management • Activity level appropriate to the group • Swimming ability obtained by group members • See instructor assessment below
Illnesses through poor water quality though normal contact	All users	<ul style="list-style-type: none"> • Pollen is thought to effect regular water users such as staff. Staff have access to nose clips • Water is tested annually externally, and records are kept
group		
Risky or dangerous behaviour leading to injuries sustained by unplanned activities	Staff Guests	<ul style="list-style-type: none"> • Safety rules put in place and monitored and the session may be cancelled at any time due to behaviour that will put people at risk or detract from other users' experience
The group are unaware of the risks and hazards and find themselves in	Staff Guests	<ul style="list-style-type: none"> • Participants made aware of the risks and hazards at the start of the activity

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situations they are not comfortable with, them feeling like they are being forced to take part in activities they are not comfortable, leading to injuries, emotional harm and the need to cut the session short due to group evacuation		<ul style="list-style-type: none"> Access at all times is easy, the quarry is 100 M long All activities are optional Emergency SOT / rafted canoe is available to quick egress
The group being left vulnerable if the instructor needs to leave the focus of the group (rescue, assist with another group etc.) leading to group neglect and injuries sustained from this	Guests Staff	<ul style="list-style-type: none"> The environment is very controllable due to its size, nature of water (still quarry) and ease of access Group sizes a maximum of 16 with a ratio 1:8 provide a manageable group in an emergency situation A group of up to 16 people will have: <ul style="list-style-type: none"> At least 1 x Quarrysteering instructor. This instructor has completed the 2 day training and assessment course A maximum of 1 x assistant Quarrysteering instructor- an assistant quarrysteering instructor has completed the one day training course but not assessment Radio communication can be made to another instructor on site BFA operates that at all times there is a second instructor available
The group's health causing issues en route such as asthma, existing injuries etc. leading to evacuation to become necessary	Guests Staff	<ul style="list-style-type: none"> Group's medical information obtained prior to activity starting on the Coasteering register / registration and medical form People with the following conditions are advised of the increased risks and the session is adapted as appropriate: <ul style="list-style-type: none"> Broken bones Sprains Back problems People requiring medication must hand this to the instructor who will carry it for the duration of the session
Other users		
Overcrowding leading to group members becoming lost / disorientated and put in additional risk	Guests	<ul style="list-style-type: none"> Group size limited to 16 people Maximum number of people quarrysteering is 40 at any one time

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Normal Operating Procedures

through lack of supervision		
Impacting other users and their equipment such as kayaks and canoes leading to impact injuries	Staff, Guests	<ul style="list-style-type: none"> • All groups are managed by an instructor • Quarry steering group sizes limited to 16 people • All other groups will have staff supervision appropriate to the NOP. Staff will managed groups to safe locations • Group not to engage in jumping or climbing if another group is in or could drift into the impact zone • Groups to wear helmets
Weather		
Poor conditions resulting on over heating or cold related injuries / illnesses	Staff Guests	<ul style="list-style-type: none"> • Swimming in the quarry will cool people down if they get too hot • Drinking of water on hot days encouraged before the activity commences • Water proof sun tan lotion recommended before the start of the activity • Wetsuits worn to provide warmth • Foil blanket provided in the event people get too cold • Buoyancy aids aid heat retention • Radio carried to call for assistance if necessary • EAP in place and emergency SOT available for quick egress
Communication		
Impact injuries and poor behaviour not communicated quickly enough leading to unsafe practice and injuries	Guests	<ul style="list-style-type: none"> • Whistles to be carried, the following signals will be briefed: <ul style="list-style-type: none"> ○ 1 whistle blast- look at the instructor ○ 2 whistle blast- stop what going on, safely get into the water and group up ○ 3- as 2 but swim back to the beach
Poor communication to other staff who can assist and the emergency services leading to injuries worsening and to possibly death	Staff guests	<ul style="list-style-type: none"> • Radios carries by all staff • There is a communication black spot in the canoe quarry, in the event staff cannot make contact the following can be set into action: <ul style="list-style-type: none"> ○ If appropriate, leave the casualty to get signal at the canoe quarry changing rooms ○ Send a group member to make contact via the radio / mobile phone ○ Send group member to run to the office (200 meters away) to summon assistance ○ Call the emergency services directly •
Poor communication between group and	Staff, guests	<ul style="list-style-type: none"> • Signals described at the start, these are: <ul style="list-style-type: none"> ○ Group movements

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staff due to ambient noise from the wind leading to poor group management and injuries that may occur		<ul style="list-style-type: none"> ○ Come to me • Whistle to be carried, see above for signals
Poor weather resulting in poor visibility limiting the instructors ability to “read ahead”, keep line of sight on the group and also hinder any rescue	Guests Staff	<ul style="list-style-type: none"> • Session called off in poor visibility, this is where you cannot see the back of the quarry • If there is a developmental benefit to operating in foggy conditions such as to heighten the experience to a “competent group” then approval from the DM should be obtained following a risk benefit discussion.
Rescues		
Spinal injuries not properly managed leading to conditions worsening and lifelong disability	Guests Staff	<ul style="list-style-type: none"> • BFA leads internally trained in spinal management during training internally, this includes: <ul style="list-style-type: none"> ○ Means of moving them to the beach with the use of towlines and staff securing the back and head ○ Quick communication to office / emergency services ○ Basic casualty management • A means of communication is readily available to call for assistance • Staff competence maintained through session delivery and 2 year refresher • BFA staff training for all new staff, see manual • BFA induction for all previous qualified or experienced staff. This is on a case by case bases and the decision of the centre manager
In the event of an accident the condition worsening through the instructor’s inability to rescue	Guests	<ul style="list-style-type: none"> • Lead instructors trained in: <ul style="list-style-type: none"> ○ Group management ○ Water rescue skills (FSRT min) ○ Spinal management (see above)
Exhaustion leading to distress, hypothermia or injuries worsening due to slow egress	Guests	<ul style="list-style-type: none"> • Staff have tests and training in simple towing using buoyancy aids. This is assessed during the 2nd day of the training where staff need to swim to the back wall and tow and unconscious person back to the beach in under 10 minutes • Rafted canoes can be used by the instructor as a base of operations where appropriate. This can be used for weak swimmers, very young people or on very cold days. All NOPS from canoeing need to be followed including having the corrects qualifications.

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		<ul style="list-style-type: none"> • Informal swim tests / observations at start of session allow participants to make informed choices and allow staff to assess clients • Medical declaration on quarry steering acceptance of risk issued to all groups and completed and signed by adults / parents / guardians that highlight the risks
Swimming		
The client's inability to swim leading to exhaustion and possibly drowning	Participants	<ul style="list-style-type: none"> • The minimum suggested ability for a participant is to be able to swim 50 M in a buoyancy aid • Staff trained to assist swimmers if they struggle • Participants to always wear buoyancy aids and wet suits to aid with buoyancy • Training area used on every session to assess swimming ability • Staff carry throw lines so swim lines can be created for weak, struggling, and non-swimmers
Poor instructor ability leading to injuries from neglect or incompetence	Guests and staff	<ul style="list-style-type: none"> • Staff leading the session will have competence in the following areas: <ul style="list-style-type: none"> ○ Water- swim test on assessment ○ Rescue-SLSGB / BCU FSRT ○ BFA quarry steer assessed
Instructors		
Inexperienced staff leading to poor judgements and injuries	Guests	<ul style="list-style-type: none"> • All staff must have completed 6 hours of training • All staff must pass the assessment (see training manual), this includes: <ul style="list-style-type: none"> ○ Observed led session ○ Rescue competence in a scenario ○ theory paper ○ swim test ○ first session observed • The assessor at the time of assessment will suggest a minimum requirement of shadowed sessions post assessment.
Time between sessions being vast leading to loss of skill / experience and resulting in injuries	Guests, staff	<ul style="list-style-type: none"> • Staff must complete retraining every 3 years
Lack of skills, confidence or fitness leading to lack of ability to provide adequate safety cover	Staff guests	<ul style="list-style-type: none"> • Staff will be assessed and must: <ul style="list-style-type: none"> ○ Be water confident and swim the length of the quarry without issues

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		<ul style="list-style-type: none"> ○ Staff must be confident getting to and be jumping from all jumps in the quarry ○ Staff must be able to tow an average sized male from the back wall to the beach
In appropriate exposure to others in the group from wearing a wetsuit	All	<ul style="list-style-type: none"> ● Staff will wear board shorts during sessions ● Guests will ask asked to wear board shorts and this will be added to the groups kit list before arrival. Although not essential that groups wear shorts BF Adventure will recommend it.
Ledges		
Ledges failing leading to impacts in the water onto other participants resulting in significant injuries and death	Staff, guests. Other users	<ul style="list-style-type: none"> ● Full specification and building specs are located in the quarrysteering file in the main office ● Ledges are installed by competent staff with experience of drilling and construction ● Ledges use a minimum of 4 x M16 resin anchors, all guidelines are followed ● Platforms are over engineered as each anchor point is rated far beyond expected use ● A maximum of 228 KG (2 x 18 stone) per platform ● The area under the platform will be made very clear ● Platforms ascend in an upward diagonal direction and participants approach the platform from the side of the lowest and in the water exit away from the platforms meaning that at no times is anyone under the platforms ● 2 people maximum to a platform so in the event of a failure, the number of people falling is minimal ● Platform designed is approved by High Time as suitable. Anchor points testing to follow.
Staff being pulled from the platform while a client is jumping	Staff	<ul style="list-style-type: none"> ● Deep water technique is taught with people holding their buoyancy aids straps with arm folded across their chest ● Staff to position hands in such a way to enable them to deflect panic grabs from the jumper ● Jumps are progressive allowing participants time to practice and become accustomed to the height

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Normal Operating Procedures

		<ul style="list-style-type: none"> Participants encouraged to jump within their challenge zone
Falling between the ledges resulting in head and elbow injury	All	<ul style="list-style-type: none"> The ledges are placed close together so access between them is easy Helmets to be worn in case of accidental slip or fall A ladder is placed between platform 2 and 3
Climbing grips		
Grips spinning resulting in falls from height into the water	Staff, guests	<ul style="list-style-type: none"> Grips checked each regularly by staff and tightened Participants managed so only 1 climber is every on a particular set of grips Platforms are positioned away from ledges meaning all falls end up in the water Maximum un-roped climbing height is 5 meters which is far less likely to result in significant injuries Climbing grips placed to make a very easy route with very little challenge Helmets worn to protect the head from impacts Buoyancy aids offer some impact protection
Unauthorised access resulting in fall from height	Public	<ul style="list-style-type: none"> Canoes are locked away at the end of each day as these can be used as a means of reaching the first grip Signs placed warning of unauthorised use

Raft Building

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Canoe Quarry		
Assessed by:	Tony Baker (with GCR)	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> BC FSRT + BC canoe proficiency + In house training Other qualifications can be approved but needs sign off from the CM
Ratios:	<ul style="list-style-type: none"> 1:8 2:16 with a competent assistant (BC FSRT + canoe proficiency)
Safety factors	<ul style="list-style-type: none"> Wetsuits between November to April Helmets to be worn and PFD while on the water Rafts checked before launch
Operational Factors	<ul style="list-style-type: none"> Staff to assist to ensure all builds are safe on the water

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Normal Operating Procedures

	<ul style="list-style-type: none"> • Rafts to be constantly checked by staff when on the water and session altered to promote a safe session • Safe lifting of raft – group and groups leads to support
Accessible Factors	<ul style="list-style-type: none"> • Rafted canoes and extra barrels can be used to make more accessible
EAP	<ul style="list-style-type: none"> • See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> • Knife, means of towing / moving raft, safety boat (canoe) • Radio, FAK • Blankets and spare clothes in cold weather
Kit for Participants	<ul style="list-style-type: none"> • PFD, Helmet, shoes • Wetsuits as necessary
Set up notes	<ul style="list-style-type: none"> • Pick up safety kit and raft building rope from equipment store

Via Ferrata

Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> For groups to design and build their own raft exploring risk and consequences both positive and negative For the group to have a safe session For the group to have an enjoyable session
Time	<ul style="list-style-type: none"> 2-3 hours
Equipment needed	<ul style="list-style-type: none"> Buoyancy aids, helmets, paddles (wetsuits) Barrels, rope, poles / crates Canoe (safety), means of towing and knife
Set up notes	<ul style="list-style-type: none"> Instructor to ensure the canoe is ready to launch before the raft is launched
Briefing	<ul style="list-style-type: none"> Aims of the session Rules and constraints
Main delivery	<ul style="list-style-type: none"> 5 minutes- design 35 minutes- building- demonstration (if required) 10 minutes – kitting up, checking and briefing 30 minutes- on the water (games and challenges) 15 minutes- pack the raft away 5 minutes- review
Summary	<ul style="list-style-type: none"> Consolidate learning
Pack away	<ul style="list-style-type: none"> Put the equipment back as shown on the training in preparation for the next sessions
Other notes	<ul style="list-style-type: none">

Risk Assessment		
Hazards	<ul style="list-style-type: none"> Water Raft Games Sharp objects on the quarry bed 	
Risk	Who it effects	How is this controlled?
Drowning	Staff Guests	<ul style="list-style-type: none"> Buoyancy aids to be worn by all water users Staff all have first aid training Staff have BCU FSRT as a rescue qualification (or equivalent as agreed by CM) Guests will be asked and information recorded on a medical form as to their swimming ability for the staff reference. Staff able to use a rescue craft. BF used a canoe so staff need to have a canoe competence qualification Ratios set at 1:8
Hypothermia caused by participants immersion in the water	Staff Guests	<ul style="list-style-type: none"> Session during November- April must wear wetsuits and have permission from the CM

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Normal Operating Procedures

		<ul style="list-style-type: none"> • Session during April – November do not need wetsuits but are available if needed • Foil blankets are located in first aid kits • Communication to the office via the radio to call for assistance should someone become hypothermic • A mean of towing should be carried by the instructor
Raft falling apart and participants becoming trapped between poles, barrels and rope leading to crush injuries	Staff Guests	<ul style="list-style-type: none"> • Staff receive in house training looking at safe designs and the correction and recognition of poor designs • Staff have a rescue qualification (BCU FSRT or equivalent as agreed by CM) • Staff are taught specific methods and techniques during their internal training and have practiced them • Knife to be carried by instructor on the water
Staff becoming stuck in the raft during a rescue leading to injuries to the member of staff and guests' injuries worsening due to delayed intervention	Staff guests	<ul style="list-style-type: none"> • Staff are taught on their training only to enter the raft as a last resort when rescuing • Knife carried by instructors • Designs being created are as entrapment free as necessary
Participants hitting their heads on the raft due to the potential unstable nature of the raft / poor design / it falling apart / during games and challenges, leading to head injuries	Guests	<ul style="list-style-type: none"> • Rafts are to be checked by instructors prior to launch to ensure they have a safe design as per their training • Rafts to be continually checked to make sure they are safe on the water • Helmets to be worn by all people on the rafts • Staff trained in first aid • Rescue craft available to move injured person to the beach quickly
The raft falling onto people's toes during the building and dismantling stage leading to crush injuries	Guests	<ul style="list-style-type: none"> • The instructor to supervise the group and coach where necessary to avoid the raft being dropped • The raft can be propped up off the floor by tyres, poles etc. to aid tying • Where necessary the raft should avoid being flipped over. If this is done the instructor assumes control of the group and manages this • Shoes / old trainers must be worn at all time during a raft building session
Injuries to back through moving the raft when it is tied together	Staff Guests	<ul style="list-style-type: none"> • Everyone within the group is encouraged to move the raft together as a team coordinated by the instructor • People are briefed to lift from the knees and not the back

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The raft capsizing due to inappropriate activity or poor group behaviour	Guests	<ul style="list-style-type: none"> The integrity and design of the raft along with the type of group should determine appropriate games and challenges. It is the job of the staff to ensure that all games are appropriate and do not result in a raft capsize during a session. This will be discussed during the in house training
Poor group behaviour / control leading to injuries and misadventure	Guests	<ul style="list-style-type: none"> The group are monitored and clear behaviours set to encourage a safe session Where groups are not listening or where behaviour is unacceptable then action will be taken to stop the session
Cuts to feet from sharp objects and rocks on the quarry bed	Guests Staff	<ul style="list-style-type: none"> Shoes must be worn by all users

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Normal Operating Procedures

Temple Run (Upper Section)

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Adventure Quarry		
Assessed by:	Tony Baker	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> All staff / groups running this must have read the NOP By 1/4/2023 all staff must have received temple run training Training to be refreshed at least every 5 years
Ratios:	<ul style="list-style-type: none"> 1:8 1:12 with a competent assistant (see risk assessment) Additional staff will be required for the “temple” with hard to manage groups or groups with physical disabilities
Safety factors	<ul style="list-style-type: none"> Briefing – See LP The temple run should be checked by staff as they use it, if the activity looks different or dangerous in any way then it should not be used Faults and issues reported to the Centre Manager immediately Not to be attempted in winds over 25 MPH When wet this activity will be very slippery. Staff to risk assess carefully before using it with a group in these conditions CLAP to be in place and competent assistants used to support the group
Operational Factors	<ul style="list-style-type: none"> 8 max on temple at any one time Staff to in PMU using CLAP Blindfolds – see risk assessment Use of equipment – see LP
Accessible Factors	<ul style="list-style-type: none"> Additional staff support is needed, this may not be suitable for most people and is not accessible to people in wheel chairs
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> FAK, Radio
Kit for Participants	<ul style="list-style-type: none"> Shoes Long trousers (advised), long sleeves (advised) Possible use of additional kit and equipment, see LP
Set up notes	<ul style="list-style-type: none"> Visually check rocks for signs of movement, report to CM/DM Additional kit like poles, barrels can be used as a team building element for the activity

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Normal Operating Procedures

Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • An adventurous walk with elements of mud, scrambling and scenic views. • Groups are required to work together offering support, cooperating with one another. • Cognitive skills such as problem solving can be included with additional equipment
Time	<ul style="list-style-type: none"> • 30 minutes to 90 minutes
Equipment needed	None <ul style="list-style-type: none"> • the session could include poles, barrels and ropes to add challenge
Set up notes	<ul style="list-style-type: none"> • None
Briefing	brief should include: <ol style="list-style-type: none"> 1. No running 2. Appropriate clothes (trousers, good footwear, old clothes) 3. Helping each other 4. Sticking to the path 5. Expected terrain <ul style="list-style-type: none"> • Behaviour on the temple
Main delivery	<ul style="list-style-type: none"> • Start at the ADQ gate, brief here before you start the walk • Depending on how the session is designed to be run to can allow people to explore the path, you can lead the walk, allocate a leader role etc. • It is advised that the group stop before the temple for a briefing on how it can be climbed safely • Moving equipment or taking part in a problem solving activity such as “bomb removal” or “gutter run” can be set up but need to be dynamically risk assessed by the instructor to make sure it is suitable for the group you • the use of blindfold can also be used to increase the level of challenge and this again needs to be risk assessed to ensure suitability. Please see risk assessment for additional notes on this • Exit at the campsite
Summary	<ul style="list-style-type: none"> • as appropriate
Pack away	<ul style="list-style-type: none"> • check back in all kit
Other notes	<ul style="list-style-type: none"> • The course can also be run in reverse and also have 2 groups traveling in different directions

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Normal Operating Procedures

Risk Assessment

Hazards	<ul style="list-style-type: none"> • Black throne and brambles • Cliff edges • The “temple” • Remoteness • Equipment and activity • Wet conditions
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Risk	Who it effects	How is this controlled?
cuts and grazes from blackthorn and bramble leading to possible infections	staff and guests	<ul style="list-style-type: none"> • Long trousers should be worn, long sleeved tops are also recommended. Old clothes are advised • The path is maintained to a state where the majority of the hazards are removed but its natural state is also maintained. Blackthorn is removed as far as possible • First aid kits to be carried, cuts to be cleaned and covers as soon as practical
Falling from cliff edges leading to fall from height (10M) resulting in significant injury and or death	Staff and guests	<ul style="list-style-type: none"> • All sections of the route that come close to the cliff edge have been rerouted away from the edge • Group size limited to 1:8 to allow for supervision
Falling on the scramble up, while on top and also descending from the temple resulting in impact injuries	Staff and guests	<ul style="list-style-type: none"> • Group size limited to 1:8 • Not to be used in winds above force 25 MPH • People on the temple should be no more than 8 at a time • Optional walk around established to avoid windy and rainy days as appropriate with the group • Ground encouraged to work together • Instructor to be in the PMU • Walking and 3 point of contact encouraged when moving up, while on top and descending the temple • Careful consideration on suitability of the group is required. Groups that are hard to control or less able may struggle and additional support or lower group numbers need to be considered • Good footwear needs to be worn and all footwear needs to be secure • The instructor or competent assistant should put themselves in a position where they can offer support, spot or maintain line of sight with people When bringing people up the initial track to the temple.

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Rocks moving resulting in fall from height, impact and crush injuries	staff and guests	<ul style="list-style-type: none"> The temple is a very well established pile of rocks from historic quarry works. Although their security is uncertain, though use and observations by staff we consider them safe. All staff using the temple need be aware of any instability and movement and report immediately to the Centre manager The established 2 routes are the only 2 routes to be used
Poor access for emergency services and for evacuation of injured people leading to injuries worsening	Staff and guests	<ul style="list-style-type: none"> Staff running the temple run will be carrying a radio and or mobile phone and can contact assistance from the DM in an emergency People should not be pressured to do anything beyond their ability The walk has 2 exit points (ADQ gate and the campsite). If BF staff are not able to evacuate people without causing further harm then the emergency services should be called. <ul style="list-style-type: none"> Any accidents beyond the temple should be evacuated towards the campsite, this terrain is manageable Accidents before the temple should be evacuated back towards the start of the ADQ. This will require more staff as the path is steep and muddy.
the use of additional equipment such as planks and barrels for team building purposes resulting in slips, trips and falls	Guests	<ul style="list-style-type: none"> Careful consideration to what equipment is used Moving equipment over the temple will need careful managing, support and or spotting should be in place Multiple people carrying equipment should be briefed and monitored and manual handling consideration briefed
Adding blind folds to members of the group leading in trips and falls from height	Guests	<p>Blindfolds can be added to increase the level of challenge and risk to develop communication, trust, and general group skills. Although very valuable, the risk is also increased, and the following apply:</p> <ul style="list-style-type: none"> The use of blindfolds needs risk assessing to ensure the activity is compatible with the group with regards to their safety every person blindfolded should be supported by at least one person who can see, but ideally two people All blindfolded people should be within line of sight of the instructor and competent assistant staff should be able to intervene when necessary people being blindfolded should be offered the choice have the option to simply close their eyes

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		<p>should be offered as an alternative to the blind fold</p> <ul style="list-style-type: none"> • Instructors to spot in key areas to support applying folded person and their guide
Slipping in wet conditions leading to falls from height and major impact injuries / death	All	<ul style="list-style-type: none"> • Staff to assess the conditions against the capability of their group before use • If not 100% of decision staff should consult DM/CM before undertaking the task • Consider how the group is managed, adaptations such as the following can be used: <ul style="list-style-type: none"> ○ Smaller group numbers ○ More staff ○ More competent assistants ○ Ropes and harnesses (SPA/ML only)

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Normal Operating Procedures

Water Slide

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Lower field		
Assessed by:	Tony Baker	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> • Previous experience on sliding down the water slide, where there is no experience an induction by an experienced member of staff needs to take place • Staff must have read and signed the NOP • Third party users must read the waterslide guidance sheet or NOP
Ratios:	<ul style="list-style-type: none"> • 1:50
Safety factors	<ul style="list-style-type: none"> • Once the slide is set up it must: <ul style="list-style-type: none"> ○ Be padded on the initial impact zone from take off ○ Pegs used to secure the slide must be staked in level or below the ground ○ Tested by staff cautiously i.e. small slow rides building up to full speed descents ○ The exit must be checked to ensure that there are no brambles on the exit • Briefing – see LP
Operational Factors	<ul style="list-style-type: none"> • This activity requires no regular checks but is checked during set up and take down for defects • Aprons to be used by all • In the summer the activity is limited to 30 minute max and operates from the tap on the outside of the bore hole shed • Head first descents on tummies • One person at a time
Accessible Factors	<ul style="list-style-type: none"> • Participants can slide down in a seated position or on their back or on a camping mat if this is deemed safer or more appropriate • Staff are allowed to slide down with the participant in a controlled manner if this makes the experience safer or more appropriate
EAP	<ul style="list-style-type: none"> • See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> • FAK, Radio
Kit for Participants	<ul style="list-style-type: none"> • Shoes, apron
Set up notes	<ul style="list-style-type: none"> • The slide must be stored away in the winter • Visually check the slide, pegs and materials for cracks or splits • Check the mattress is in place at the top

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Lesson Plan	
Aims and objectives	<ul style="list-style-type: none"> • fun
Time	<ul style="list-style-type: none"> • Varied 30 mins – 120 minutes
Equipment needed	<ul style="list-style-type: none"> • Testing as above must take place
Set up notes	<ul style="list-style-type: none"> • Attach hose to the tap on the bore hole shed • Visually check the slide before use, checking pegs and for tears
Briefing	<p>Briefing</p> <ul style="list-style-type: none"> • Safety points that need to be covered • Apron must be worn • Shoes must be worn • Old clothes must be worn • Descents must be head first on their stomach • Hands must be in the air • Feet must be up • One person to launch at a time, when instructed • No standing on the slide <p>Following briefing groups are allowed to launch at will.</p> <ul style="list-style-type: none"> • Instructors will control the launching to one at a time but the frequency of this can be largely determined by the group. Staff are to monitor the number of participants on the slide and to keep and maintain a safe environment.
Main delivery	<ul style="list-style-type: none"> •
Summary	<ul style="list-style-type: none"> • Equipment should be packed away on the middle shelf in the problem solving container dry and ready for next use
Pack away	<ul style="list-style-type: none"> •
Other notes	<ul style="list-style-type: none"> •

Risk Assessment	
Hazards	<ul style="list-style-type: none"> • Launching • Pegs • Grass and brambles • Other users • Water supply

Risk	Who it effects	How is this controlled?
Impact injuries from launching	All	<ul style="list-style-type: none"> • The “impact” zone at the launch spot is to be padded out with mattresses or roll mats • Explanation and demonstrations to be provided by the instructor
Cuts and bruises from sliding over pegs	All	<ul style="list-style-type: none"> • Only the minimum amount of pegs are used

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		<ul style="list-style-type: none"> • All pegs uses are to be mallet into the ground level or just below the surface to reduce the potential of injury • Old clothes and aprons worn to reduce the chance of cuts and grazes
Cuts and scratches from impacting brambles on the exit of the slide	All	<ul style="list-style-type: none"> • Area to be maintained by maintenance manager and staff are responsible to check the area to ensure it is safe enough for use • Old clothes and apron worn to minimise any cuts if participants slide into brambles
Sliding off the side of the slide leading to cuts and scratches from brambles and prickly plants	All	<ul style="list-style-type: none"> • Area to be maintained by maintenance manager and staff are responsible to check the area to ensure it is safe enough for use • Specific launch site and impact site ensure correct trajectory which will minimise premature exit from the slide • Staff to have previous experience of using the slide to help make this decision <ul style="list-style-type: none"> ○ Where this is lacking an induction by competent member of staff should take place ○ For 3rd party users, they must read the information sheet or the NOP • Old clothes and apron worn to minimise any cuts if participants off the side of the slide • Shoes must be worn
Participants getting knocked over by other participants leading to minor impact injuries	All	<ul style="list-style-type: none"> • One participant launching at a time • No walking on the slide • Staff monitoring group behaviour and numbers on the slide
Draining the water supply resulting in the rest of the site not having adequate access to running water	All	<ul style="list-style-type: none"> • In the summer months, the water slide is only to be used for 30 minutes maximum in any one time • the hose to use for the water slide must be attached to the borehole shed and not to the tap in the garden

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Normal Operating Procedures

Zip wire - Accessible

Location	BF Adventure, Goodygrane Activity centre, Halvasso, TR10 9BX Accessible zip wire		
Assessed by:	Tony Baker and Paul Cox	Date	31/12/2022
Reassessed by	In 12 months from the above date		
Supporting policies	Generic NOP, kite 2 harness		

Normal Operating Procedures summarised from Risk assessment

Experience Training and Qualifications	<ul style="list-style-type: none"> Internal zip wire training and assessment for the top of the platform Internal training for the bottom of the zip wire 2 year retraining
Ratios:	<ul style="list-style-type: none"> 2:12 (suggested 2:8)
Safety factors	<ul style="list-style-type: none"> Briefing – see LP Participants to have safety lines on when on platform Staff to wear safety line when managing clients or if intending on zipping Safety line attached and adjusted as per training Full system check prior to launch, duality checks if appropriate Clear command used between bottom staff before Final Departure Check
Operational Factors	<ul style="list-style-type: none"> PPE fitted and checked before passing through gate onto platform Participants to have the system demonstrated at the start Participants asked to demonstrate competence with lowering before descent if appropriate Bungee rope release before launch Session cancelled in strong north winds above force 4
Accessible Factors	<ul style="list-style-type: none"> The following techniques can be used following further training <ul style="list-style-type: none"> Kite 2 harness can be used – this requires additional training The bottom can be a start point Controlled descent using dynamic rope and retrieval at the top can be set up
EAP	<ul style="list-style-type: none"> See EAP at the start of this document

Equipment and Venue

Safety equipment	<ul style="list-style-type: none"> FAK, Radio, rescue bag (April 2023)
Kit for Participants	<ul style="list-style-type: none"> Sit harness and helmet full body if required
Set up notes	<ul style="list-style-type: none"> Pre use visual checks on apparatus includes, poles, wires and anchors Visual PPE checks before issuing out PPE or setting up equipment Visual and function test on set up

Lesson Plan

Aims and objectives	<ul style="list-style-type: none"> To ensure participants are as safe as necessary Provide an enjoyable experience Provide education relating to risk (perception, management and benefit)
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Time	<ul style="list-style-type: none"> 1.5 hrs.
Equipment needed	<ul style="list-style-type: none"> Zip wire sets from store (trolley, safety rope, daisy chain, 3 x Krab, gri-gri, pulley and 2 x snap gates) 1 x harness and helmet per participant Fully body and chest harnesses as necessary Retrieval line and pulley
Set up notes	<ul style="list-style-type: none"> The session does not operate in winds exceeding 30mph from the north Staff to ensure their safety by attaching to a safety line when setting up near the edge of the platform Set up all equipment as illustrated in training manual Check weather and refer to NOP for operational limits Visual check of the following before activity: <ul style="list-style-type: none"> General area Wires Attachment points Anchor points PPE Zip kit (and by running the rope through the hands) Function tests for zip kit Set up retrieval system
Briefing	<ul style="list-style-type: none"> Rapport <ul style="list-style-type: none"> Introduce yourself and the activity, gather medical history and previous experience and gauge the group's emotional states. Safety <ul style="list-style-type: none"> check for appropriate shoes make sure items are removed or secured in appropriate pockets Ensure long hair is tied back / out of the way Only come onto the platform when invited (3 guests MAX), work experience, trainees and volunteers are welcome on the platform with a briefing and a safety line
Main delivery	<p>Briefing</p> <ul style="list-style-type: none"> Long hair- tied back Shoes- secured to feet Loose items in pockets- removed or zipped up Waiting area When to come into activity area- listen and leave the PPE alone Previous injuries Demonstrate the system and lower off procedures. Brief participants to listen to instructors at the bottom and wait to be lowered down <ol style="list-style-type: none"> follow the procedures for descent in the training manual for Second descents extra challenges can be added which may include: <ol style="list-style-type: none"> target practice- dropping bean bags / balls into targets playing catch- passing a ball / bean bag to participants on the path or on the opposite wire during decent cannon ball – getting the most speed by making a tiny ball stepping off backwards eyes closed

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	Below are up some activities that can be used as especially on second goes to add a bit of fun creativity and learning. The list is not exhaustive but should act as a guide to help staff create sensible activities																
	<table> <tr> <th>Suitable activities</th><th>Unsuitable activities</th></tr> <tr> <td>Eyes shut</td><td>inversion</td></tr> <tr> <td>Hand off the rope</td><td>Running off</td></tr> <tr> <td>Stepping off backwards</td><td>Jumping off</td></tr> <tr> <td>Throwing balls / bean bags to a target</td><td>Pushing off the pole</td></tr> <tr> <td>Passing a ball between both zippers</td><td>Grabbing the tyre</td></tr> <tr> <td>Making different shapes</td><td>Holding a rope between the 2 zippers</td></tr> <tr> <td>Measuring speed</td><td></td></tr> </table>	Suitable activities	Unsuitable activities	Eyes shut	inversion	Hand off the rope	Running off	Stepping off backwards	Jumping off	Throwing balls / bean bags to a target	Pushing off the pole	Passing a ball between both zippers	Grabbing the tyre	Making different shapes	Holding a rope between the 2 zippers	Measuring speed	
Suitable activities	Unsuitable activities																
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Making different shapes	Holding a rope between the 2 zippers																
Measuring speed																	
Summary	<ul style="list-style-type: none"> Review the session 																
Pack away	<ul style="list-style-type: none"> Pack the kit into bags, checking it for damage Lock the gate to the platform Take the kit back to the store Sign the kit back in Report any damages / concerns to senior staff 																
Other notes	<ul style="list-style-type: none"> 																

Risk Assessment

Hazards	<ul style="list-style-type: none"> Launching platform Equipment Staff Level crossing gate Release and lowering system Zip wire Long hair / jewellery Shoes and loose items Weather Rescues / assists
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Risk	Who it effects	How is this controlled?
Fall form platform resulting in impact injuries	Staff Guest Public	<ul style="list-style-type: none"> Gates in place to limit access Signs erected to inform of dangers Safety kit stored and locked away Procedures of operation in place (see session plan) using safety lines to ensure client safety- staff are trained and assessed with these procedures Safety lines in place and set up by trained instructors that eliminate the risk of a fall. Participants to be issues these at the gate. Staff to put on safety lines when manging zippers and if they are setting themselves up for a zip.

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		<ul style="list-style-type: none"> All staff are trained and assessed by competent and experienced instructors in line with the training and assessment manual All groups are supervised by qualified instructors at all times at a maximum staffing ratio of 2 : 12 (1 of these instructors will be managing the bottom of the zip wire)
Slipping on the platform leading to cuts, bumps	Staff and guests	<ul style="list-style-type: none"> Walking encouraged Instructor to manage position of safety lines Non slip decking used
Equipment failure due to improper fitting, lack of conformity or misuse resulting in impact injuries and falls from height	Staff Guests	<ul style="list-style-type: none"> All equipment conforms to standards laid out by ERCA All instructors trained and assessed on how to operate equipment The zip wire will be included on the daily “walk the floor” checks to monitor operation standards All equipment is “visually” checked before use by the qualified Instructor(s), this includes: <ul style="list-style-type: none"> Checking zip set up Visually checking the zip line and poles Visual check of all anchors All equipment is checked at least every 6 months and logged User checks of all take place when setting up the session All equipment stored, managed and checked in line with manufactures recommendations There is a clear system in place for equipment that has: <ul style="list-style-type: none"> Operational concerns (removed and reported to senior staff) Been retired
Poorly fitting equipment leading to impact injuries and falls from height	Guests	<ul style="list-style-type: none"> All equipment fitted in line with manufactures guidelines Final Departure cheque to take place before departure During normal operation a sit harness will be used as the primary safety Large or smaller framed people have access to a fully body harness
Structural failure of equipment due to overloading the apparatus	Guests	<ul style="list-style-type: none"> The weight limit is 130KG (20.5 stone) We aim to operate with a maximum limit of 18 stone for operational purposes Our sign and documents state 16 stone to allow a margin of error or misdirection from service users

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Staff making mistakes leading to injuries and falls from height	Staff Guests	<ul style="list-style-type: none"> • All staff internally trained by designated individuals as illustrated by the technical expert, • All instructors are to be assessed before being allowed to operate independently on the zip wire • Staff will receive “retraining” every 2 years • Specific mention of staff operating the zip wire will be made during the “walk the floor” observations • Staff will not run the same action on the zip wire (i.e. sending people down or lowering people to the ground) for more than a 3 hour period in order to provide variety to their work period
Impact at the level crossing gate during the zip wire descent	Guests	<ul style="list-style-type: none"> • Duality check in place where the top and bottom instructor agree a safe descent by shouting clear and have a clear signal (thumbs up)
Guests releasing the system incorrectly resulting in the client getting stuck at height or impact injuries and falls from height	Guests	<ul style="list-style-type: none"> • The system used to lower people off is a simple system • The system used to lower off has a “back up” system (daisy chain sling) to eliminate a fall from height due to incorrect operation of the lower off • A clear explanation on how to use the release system will be done and a check for understanding will take place before descent if appropriate • Participants told that the bottom instructor will control the lower off and to await instructions • Bottom instructor must be trained and be in the position of Maximum usefulness with line of sight over all participants being lowered off. • Staff lowering people down must remain in full control of every lower off • Staff trained on how to lower people should a participant become stuck • Rescues will be conducted from the ground or by hauling the participant back to the launch platform
Helmets getting hooked on the connectors on the daisy chain during descent leading to asphyxiation	Participants	<ul style="list-style-type: none"> • Staff will ask participants to reattach the connector that secures the participant to the back up system to the white rope above the petzl rig. This will capture the connector in place stopping it from hooking on the helmet during a lower • Where the participant cannot do this, staff should make reasonable actions to reduce the chance of the helmet accidentally hooking on a connector, these include: <ul style="list-style-type: none"> ○ Moving the connector out of the way but within line of sight ○ Very slow descent paying attention to the position of the blue connector in relation to the helmet

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		<ul style="list-style-type: none"> ○ Removing the blue connector from the daisy chain sling but leaving it attached to the harness ○ Inverting the blue connector so the wide end of it points up reducing the potential for an accidental attachment as the “hook shape” of the connector is upside down and not able to hook the helmet • The assist process for unloading the daisy chain could help with this should the helmet become hooked • The rescues (new for 2023) can also be used to lift the participant should the helmet become stuck.
Participants who have a disability or are nervous attaching to the zip wire at the bottom incorrectly resulting in injuries	Guests	<ul style="list-style-type: none"> • the instructor to ensure the only one trolley system is attached to each wire to avoid any accidental collisions • Staff to ensure that before the participant is moved beyond the attachment area at the bottom of the zip wire they have sufficient height and clearance not to impact any bushes or the ground on their return descent.
Structural failure of the zip wire leading to multiple impact and / or crush injuries	Staff Guests Public	<ul style="list-style-type: none"> • The activity was constructed by a reputational company • On construction the activity had a type A inspection upon completion (certificate pending) • The zip wire is inspected annually by a type C inspector • All recommendations will be taken on board and auctioned in good time
Participants grabbing the wire during the descent leading to cuts and burns	Staff, guests	<ul style="list-style-type: none"> • Thorough briefing prior to descent • Most participants are out of reach of the wire
Long hair and jewellery becoming trapped in the equipment during the descent / lower off resulting in people becoming stuck at height	Staff Guests	<ul style="list-style-type: none"> • All hair, tassels and loose items to be tied back during descent • Loose jewellery to be removed to secured in such as manor not to become a hazard before descent • All staff trained how to operate an “Assist” so enable hair to become entangled from the system from the floor. See training manual • From April 2023, staff will be taught how to use the rescue bag which includes a pull system which can be sent down to the participant to remove all the tension from the trapped system or to pull the participant back to the launch platform
Footwear and loose items in pockets falling	Staff Guests Public	<ul style="list-style-type: none"> • Shoes need to be secured to feet (no flip flops or loose footwear)

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off during descent and impacting people		<ul style="list-style-type: none"> All loose items in pockets need to be placed into a zipped pocket or removed prior to descent The area under the zip wire should be restricted during participant's descent
Impacting the end poles as the participants' zip is accelerated from winds coming from behind them (N winds)	Guests	<ul style="list-style-type: none"> Sessions do not take place in winds from the N exceeding 30 mph (based on the met office forecast)
Injuries when operating in lightening	Staff Guests	<ul style="list-style-type: none"> All sessions will be stopped in the event of thunder or lightening and will not resume for a 20 minute period
Non assessed people operating the zip wire for others under the supervision of a qualified zip wire instructor making mistakes leading to injuries	Guests	<ul style="list-style-type: none"> All procedures listed still apply The responsibility of client safety lies with the top instructor The top instructor must be present at all times and able to intervene at all times
Trolley inversion at start resulting in a stuck participant	Guests	<ul style="list-style-type: none"> No jumping on launch The safety line should be loaded when participants reach the edge of the launching platform In the event of a trolley inversion either: <ul style="list-style-type: none"> Reaching out with a short length of rope and pull them to the platform Perform a rescue as above in the "Long hair and jewellery becoming trapped in the equipment" For both situations, inspect the trolley and remove if necessary
Soft tissue and rope burn injuries two staff hauling people back up the zip wire using the rescue system	staff	<ul style="list-style-type: none"> staff to use a progress capture pulley attached to the zip wire pole which will give them a mechanical advantage I will also stop the rope from moving when it's let go off

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Abbreviations

PMU - position of maximum usefulness

MBL – Minimum Breaking Load