

| RISK ASSESSMENT | | ROPED ACTIVITIES | | Ref No. A01 | |
|--|--|--|----------------------|--|--|
| Baseline <input checked="" type="checkbox"/> | | Site Specific <input type="checkbox"/> | | Vulnerable Person <input type="checkbox"/> | |
| | | | | Temporary <input type="checkbox"/> | |
| Activity covered by this assessment: | | 3G Swing, Abseiling, Bouldering, Climbing, Descender, High Ropes, Power Fan, Sky Climb, Zip-Wire | | Hazard References: A01/01 – A01/05 | |
| Assessors: | John Robson (Kingswood H&S Advisor) | | Reviewers: | | |
| References: | Roped Activities BRA, issued February 2011 (withdrawn) | | | | |
| Date of issue: | 27/02/12 | | Planned review date: | End February 2013 | |

HAZARDS

| Hazard Ref. | Hazard description | Activities giving rise to risks | Control Measures | |
|-------------|--|--|------------------------|------------------|
| | | | Static | Dynamic |
| A01/01 | Off-ground activities – General work at height issues | Any off ground activity risks a fall from height for participants, either while participating (actively climbing, abseiling, bouldering, etc.) or while accessing the equipment in order to participate (climbing ladders or poles to a platform). | S118, S119, S120, S138 | D128, D129, D130 |
| | | Some off-ground activities are supervised by an instructor from a platform, a fall from which would cause significant injury. | S118 | D128 |
| | | Outside of the normal operation of the activity, instructors and others are required to access the high elements for checks, maintenance, etc. | S122 | D131 |
| | | Unauthorised or unsupervised access to activity structures by guests, visitors or the public introduces a further risk of people falling from height. | S121 | |
| A01/02 | Poor standard of supervision or application of technique | Instructor fails to set-up or operate belay, descent or safe attachment system correctly. | S123-134 | D140 |
| | | Instructor inattention or distraction causing failure in descent or safe attachment system. | S123-134, S135 | D132 |
| | | Participants do not understand how to operate the safe attachment system correctly, and become detached or stuck. | S123-134 | D133 |
| | | Accompanying adults failing to understand or failing to undertake their assistive or supervisory role, where this is necessary for the safe operation of the activity. | | D134 |
| | | Instructor unable to control participants awaiting their turn. | S123-134 | D134 |
| | | Operating off-ground activities in extreme weather conditions, particularly high winds or lightning storms. | S110, S136 | D135 |
| A01/03 | Equipment or structural failure | Equipment such as harnesses, helmets, ropes, slings, karabiners, etc. will all deteriorate over time through the wear and tear of normal use. | S138 | D013 |
| | | Equipment can fail if it is incorrectly specified, i.e. the wrong type or standard of equipment is being used for a particular application. | S139 | |
| | | Equipment can fail if it is being used incorrectly, e.g. a descent device threaded the wrong way or a karabiner not loaded correctly | S139 | D123 |
| | | Roped activity structures can fail due to deterioration over time, through the wear and tear of normal use, through damage to anchor points or due to severe weather damage. | S070, S141 | D013 |
| A01/04 | Contact with equipment, structures or participants | Participant banging head or abrading body parts on their ascent/descent of the climbing or abseiling wall or high ropes element. | | D022, D080 |
| | | Participant getting their hair, jewellery, clothing or fingers entangled in gri-gris or other descent devices. | | D024 |
| | | Participants or spectators being hit on the head by objects falling from structures or from participants above. | | D080 |
| | | Participants descending or moving at speed, such as on Fan-descender, 3G Swing or Zip Wire can cause injury to themselves or others if they collide with spectators or other participants. | | D136 |
| | | On 3G Swing participants may suffer injury if the steps are not removed prior to release and a collision occurs. | | D137 |
| | | Tripping over ground anchors in the activity or spectator areas. | S044 | D008 |
| | | On zip wires that descend to ground, injury may be sustained if the descent is too rapid or the participant grounds outside the landing area. | S140 | D138 |
| | | Participants on bouldering colliding with one another on the wall. | | D055, D059 |
| A01/05 | Participants getting stuck | Participants on bouldering activity twisting ankles after stepping in gaps between impact mats. | | D139 |
| | | Participant getting their hair, jewellery, clothing or fingers entangled causing the gri-gris or other descent devices to jam. | | D024 |
| | | Failure by the participant to operate a piece of equipment on their own, or to adopt a particular position leading to the need for a rescue | S123-134 | D133 |
| | | Participants put into personally challenging situations which may produce an emotional or fear response. In extreme cases this may verge on panic. | S123-134 | D058 |

RISK ANALYSIS

| Ref | Hazard | Who may be harmed | Likelihood | Severity | Risk |
|--------|--|-------------------------------------|------------|----------|------------|
| A01/01 | Off-ground activities – General Participation | Participants, Teachers, Instructors | Low | Serious | Acceptable |
| A01/02 | Poor standard of supervision or application of technique | Participants | Medium | Serious | Marginal |
| A01/03 | Equipment or structural failure | Participants, Instructors | Low | Major | Marginal |
| A01/04 | Contact with equipment, structures or participants | Participants, Teachers, Instructors | Medium | Minor | Acceptable |
| A01/05 | Participants getting stuck | Participants | Low | Minor | Acceptable |

RISK CONTROL

| Control Ref. | Static Risk – Operational Controls |
|--------------|--|
| S044 | Trip hazards should, where possible, be removed, access restricted or made highly visible. |
| S070 | The activity apparatus must be of solid construction and subject to 4 weekly and annual inspection. Repair or replacement of components should be undertaken as necessary. |
| S110 | The day's weather forecast must be displayed on a notice board. |
| S118 | Where operationally possible, all launch platforms etc. must be protected by guardrails on all sides where there is a fall risk. |
| S119 | Ladders used to access poles and other structures must be firmly footed, secured at the top to prevent slipping, and set at a suitable angle for climbing (76° or 1:4). |
| S120 | All bouldering facilities must have a line or other indicator marked on them no greater than 50cm from the floor above which participants' feet must not be placed. |
| S121 | Access points to roped activity structures must be secured against casual or unauthorised access at all times when the equipment is not in use for extended periods e.g. in the evening and overnight. Where such restriction is not possible, the climbing faces of such structures must have warning signs displayed. |
| S122 | Accessing of roped activities for checks, maintenance, etc. must only be undertaken by instructors who have attained the Accessing Award, and only then when there is a second trained Accessor present. |
| S123 | All roped activities must operate with a minimum of two instructors available trained in core skills and the relevant roped discipline. One of these must be supervising the activity but the other can be based at another activity nearby and be quickly available if required. |
| S124 | Explanation, demonstration and ongoing coaching of the 3G Swing activity will be provided by 2 instructors holding the in-house 3G Swing award and assessed as competent by a holder of the Mountain Instructors Award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a maximum of 2 participants on the swing at any one time. An additional adult must be in attendance to help supervise those at the waiting area. |
| S125 | Explanation, demonstration and ongoing coaching of the Abseiling activity will be provided by 2 instructors holding the in-house Off-Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 1:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S126 | Explanation, demonstration and ongoing coaching of the Bouldering activity will be provided by an instructor holding the in-house Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. Each instructor can supervise up to 16 participants (15 students + 1 teacher), with 15 participating in the activity simultaneously. An additional adult must be in attendance to help supervise those at the waiting area. |
| S127 | Explanation, demonstration and ongoing coaching of the Manual Belay Climbing activity will be provided by 2 instructors holding the in-house Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 1:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S128 | Explanation, demonstration and ongoing coaching of the Auto Belay Climbing activity will be provided by an instructor holding the in-house Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. Each instructor can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 4:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S129 | Explanation, demonstration and ongoing coaching of the Descender activity will be provided by an instructor holding the in-house Descender award and assessed as competent by a holder of the Mountain Instructors Award. The Instructor will be accompanied by an Instructor holding the in-house Ground Assistant award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a maximum of 2 participants on the Descender at any one time. An additional adult must be in attendance to help supervise those at the waiting area. |

| | |
|------|--|
| S130 | Explanation, demonstration and ongoing coaching of the High Equilibrium, Jacobs Ladder and Vertical Play Pen activities will each be provided by 2 instructors holding the in-house Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 1:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S131 | Explanation, demonstration and ongoing coaching of the High Ropes activities (less High Equilibrium, Jacobs Ladder and Vertical Play Pen) will each be provided by an instructor holding the in-house Ground Belay award and assessed as competent by a holder of the Mountain Instructors Award. The Instructor will be accompanied by an Instructor holding the in-house Ground Assistant award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 1:1 participant to Ground Belay instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S132 | Explanation, demonstration and ongoing coaching of the Power Fan activity will be provided by an instructor holding the in-house Power Fan award and assessed as competent by a holder of the Mountain Instructors Award. Each instructor can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 1:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S133 | Explanation, demonstration and ongoing coaching of the Sky Climb activity will be provided by 2 instructors holding the in-house Sky Climb award and assessed as competent by a holder of the Mountain Instructors Award. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a ratio of 12:1 participant to instructor for those actively engaged on the apparatus. An additional adult must be in attendance to help supervise those at the waiting area. |
| S134 | Explanation, demonstration and ongoing coaching of the Zip Wire activity will be provided by 2 instructors holding the relevant in-house Zip Wire award (Tower, Tree, Giant or Ground Zip) and assessed as competent by a holder of the Mountain Instructors Award. For Giant Zip an additional Ground Assistant award holder must be present, and for Ground Zip the Ground Assistant can take the place of one of the Zip Wire Award holders. Each pair of instructors can supervise up to 16 participants (15 students + 1 teacher), with a maximum of 1 participant on the Zip Wire at any one time. An additional adult must be in attendance to help supervise those at the waiting area.. |
| S135 | System of Instructor observation and refresher training is in place to ensure supervising instructors maintain high standards. |
| S136 | Off ground activities should not operate during high winds, lightning storms or if lightning storms are expected. |
| S137 | Impact absorbing matting must be provided around the bottom of bouldering walls |
| S138 | All harnesses, helmets, ropes, slings and metalwork are subject to 4 weekly inspection and repaired or replaced as necessary. |
| S139 | Exact specifications for roped activities equipment is specified in Activity Operating Standards. Its set-up and correct use is defined in Operating Standards and Session Plans |
| S140 | An impact absorbing surface must be installed beneath the zip-to-ground wire large enough to cover the range of points at which the varying size of participants will come to ground. |
| S141 | Where trees are used as a part of the course, or are independent of the course but in close proximity, an annual survey of them must be carried out by a competent person to ensure they are safe. |
| | |

| Control Ref. | Dynamic Risk – Instructor Controls |
|---------------------|---|
| D008 | Check that all participants are wearing low heeled or flat shoes. |
| D013 | Check the condition of activity area and equipment before you begin using it, and report defects that arise during the activity. |
| D022 | Check that all participants are wearing long sleeves and long trousers. |
| D024 | Check that long hair is gathered up and tucked away, large or prominent jewellery and neckwear is removed and large pocket items are removed |
| D055 | Brief participants to be aware of who is around them and give each other space to avoid being hit or kicked by equipment or other participants. |
| D058 | Challenge by choice; do not force an unwilling participant into an activity they do not feel comfortable attempting. |
| D059 | Explain and demonstrate appropriate spotting techniques and position yourself so as to lend support to participants on off-ground elements as necessary. |
| D080 | Give every participant a helmet before beginning the activity, and check that it is fitted correctly. A full turban is an acceptable alternative, but be careful of loose cloth becoming entangled in equipment or apparatus. |
| D128 | When operating above ground level on activities where there is a foreseeable risk of a fall causing injury, ensure everyone (yourself and participants) are attached to a safety line or overhead wire using a rope or sling via a correctly fitted harness at all times. |
| D129 | Check the stability of access ladders at the beginning of the activity. They must be secured to the pole at the top and be at a suitable angle for climbing (76° or 1:4) |
| D130 | Brief participants on the maximum height that they are allowed to place their feet on the bouldering wall. |
| D131 | Do not access the high elements of roped activity structures outside of normal activity time (e.g. for equipment checks), if you are alone. Accessing must only occur with a second accessor present. |
| D132 | Concentrate on your climber; they are your main responsibility. Don't let other considerations distract you from their safety. |
| D133 | Ensure that explanations and demonstrations of equipment and technique are clear, and confirm understanding of the main safety points with each participant before allowing them on the activity. |
| D134 | Brief accompanying adults on what roles you wish them to undertake at the beginning of the activity, and be clear about the importance of the role they play. |
| D135 | Check the weather forecast before the activity and continue to monitor conditions. Suspend the activity if (in your opinion) wind, rain, snow, ice or lightning conditions pose a danger to yourself or participants. |
| D136 | Check that the landing area is clear of spectators or other participants before allowing a participant to make a descent. |
| D137 | Check that the steps have been removed from the swing area before allowing participants to release the 3G Swing |
| D138 | Ensure that the impact absorbing surface beneath the zip-to-ground activity is raked and levelled at the end of the activity, and during the activity as may be necessary to maintain the impact absorbing properties of the material. |
| D139 | Ensure impact mats are pushed tight against the bouldering wall and each other before the activity begins, ensure throughout the session that gaps don't form. |
| D140 | Crosscheck. Always check the set-up of equipment that has been set up by someone else, to ensure it has been double checked before use. |