

Risk Identification – Alpine

<p>What could go wrong? RISK</p>	<p>Why would this happen? HAZARD</p>	<p>Significance? RISK RATING Refer to SMP pg. 17</p>	<p>Controls - What we will do about it – Standard Operating Procedures The Assessor is accountable for the overall safety of the course and must ensure the below controls are in place</p>
<p>Serious Injury or Death - Vehicle accident</p>	<p>1. Icy access roads</p>	<p>Medium</p>	<p>1. Vehicles are appropriate for the conditions e.g. 4WD Chains are carried and fitted where necessary. Road conditions are checked before driving. Drivers are experienced at driving on icy roads and fitting chains.</p>
<p>Serious Injury or Death - Hypothermia and Frost Bite</p>	<p>1. Exposure to elements 2. Lack of energy</p>	<p>Medium</p>	<p>1. Assessors, candidates/trainees and model clients have appropriate clothing and shelter on or available e.g. thermals, water proofs, hats, tents. Model clients are provided with appropriate spare clothing if needed. Warming resources are available e.g. thermos, cooker, bothy bag, tent, sleeping bag. Updated weather forecast is obtained and conditions are suitable for the group's skill level and location. Activity adjusted to suit environmental conditions and group's skill level. 1 & 2. Model clients briefed on clothing and food requirements in pre-event letter as prevention to hypothermia. 2. Journey is appropriate and breaks meet the nutrition and fitness need.</p>
<p>Serious Injury or Death - Avalanche</p>	<p>1. Natural occurrence 2. Triggered by group member 3. Heavy snowfall</p>	<p>Medium</p>	<p>1 & 3. Snowpack/avalanche conditions are researched prior to trip. Sources of information include avalanche.net.nz, local ski patrols, guiding companies, and other climbers/skiers. All participants carry avalanche equipment (beacon, shovel and probe) if travelling in avalanche terrain. Transceiver checks completed prior to entering avalanche terrain. 1, 2 & 3. Stability evaluations are carried out in field. This includes observation of terrain and snow conditions, snowpack analysis, and instability tests. Conservative route selection is employed to utilise safe terrain. Group to spread out in avalanche terrain where appropriate.</p>

<p>Serious Injury or Death – Slipping, tripping or falling</p>	<p>1. Terrain inappropriate for the group 2. Inappropriate equipment 3. Poor group management 4. Anchor/ abseil system failure</p>	<p>Medium</p>	<p>1. Choose appropriate routes, anchors, climbing techniques and terrain within the scope of the qualification and the ability of the participants. 2. Model clients are briefed on footwear requirements in pre-event letter. Provide appropriate equipment to model clients, and demonstrate, teach and monitor correct use and movement techniques. 3. Use appropriate techniques to manage the terrain. 1, 2 & 3. Site-specific risks are disclosed to all those involved. 4. Back up anchors used in critical situations.</p>
<p>Serious Injury or Death – Crevasse Fall</p>	<p>1. Travelling through glaciated terrain</p>	<p>Medium</p>	<p>1. Choose safe routes through glaciated terrain and appropriate rope teams. Use and teach appropriate glacier travel techniques. Carry emergency crevasse rescue equipment.</p>
<p>Serious Injury or Death - Snow cave/ structure collapse</p>	<p>1. Incorrect techniques used 2. Adverse weather 3. Avalanche</p>	<p>Medium</p>	<p>1, 2 & 3. Ensure site is appropriate, domed shape ceiling is constructed and walls are thick. Snowpack structure to be considered before and during building (position of domed ceiling relative to soft/ hard layers). 2. Weather forecast is suitable to snow caving.</p>
<p>Serious Injury or Death - Equipment failure</p>	<p>1. No pre-checks on equipment 2. Unmaintained or old equipment 3. Improper use</p>	<p>Medium</p>	<p>1 & 2. Key equipment being used is checked before the trip to ensure it is fit for purpose. 3. All participants use equipment in accordance with the manufacturer’s recommendations and current good practice. All candidate, trainee and model client equipment is checked for appropriate use, age and damage.</p>
<p>Serious Injury or Death - Impact from above</p>	<p>1. Tree, branch, ice or rock fall 2. Excessive wind</p>	<p>Medium</p>	<p>1. Use route selection, timing and methods of travel that manage the exposure to avalanches, ice or rock fall. 2. Weather forecast is checked and plans adapted if excessive wind forecast. 1 & 2. Helmets worn when the risk of objects falling from above is possible.</p>
<p>Serious Injury or Death - Drowning</p>	<p>1. River Crossing</p>	<p>Medium</p>	<p>1. Choose appropriate methods and locations to cross-rivers that are within the ability of all group members. Obtain an updated weather forecast for the area.</p>

			<p>The group must stay together.</p> <p>River levels are appropriate for crossing.</p> <p>Participants know what to do if they fall into the river.</p>
<p>Serious Injury or Death</p> <p>Lost person or group</p>	<p>1. Poor group management</p> <p>2. Group lost</p> <p>3. Poor visibility</p>	Medium	<p>1 & 2. NZOIA ratios are maintained at all times.</p> <p>1, 2 & 3. Assessors to step in if the candidate is not managing the group and potential lost person becomes a safety concern.</p> <p>Assessors to know at all times where the candidates/trainees and model clients are.</p> <p>Leave intentions with someone and take suitable communication device/s.</p> <p>3. Obtain an updated weather forecast for the area and determine if is suitable to the skill level of the group.</p> <p>The participants must stay together in white out conditions.</p>
<p>Serious Injury or Death - Poisoning</p>	<p>1. Carbon monoxide</p>	Medium	<p>1. Risk of carbon monoxide poisoning occurring in enclosed spaces is disclosed.</p> <p>Where possible avoid cooking in tents and snow shelters. If weather conditions prevent this, then ensure ventilation is adequate and monitor use. Ensure adequate ventilation if cooking in huts.</p>
<p>Serious Injury or Death - Fire</p>	<p>1. Burns</p>	Medium	<p>1. Brief/teach and monitor safe techniques for use of cookers and fires.</p>
<p>Serious Injury or Death - Medical Condition</p>	<p>1. Known medical condition arises</p> <p>2. Unknown medical condition occurs</p>	Medium	<p>1 & 2. Assessors and candidates to have a current first aid certificate and a means of contacting emergency services.</p> <p>1. Medical forms of candidates/trainees and model clients are checked and relevant information is considered.</p> <p>Personal medication is being carried by the participant (i.e. inhalers, adrenaline).</p> <p>A first aid kit is carried at all times.</p>
<p>Injury – Impact from mountaineering equipment (e.g. Ice axe or crampons)</p>	<p>1. Incorrect use</p> <p>2. Slip, trip or fall</p>	Low	<p>1 & 2. Brief/teach and monitor safe use of mountaineering equipment throughout the course. Assessors, candidates/trainees and model clients keep a safe operating distance.</p>

Injury Rope Burn	1. Loss of control belaying or abseiling 2. Incorrect technique	Low	1 & 2. Brief/teach and monitor safe climbing/mountaineering techniques.
Loss of Access	1. In the wrong place without notification	Low	1. Course Director to be the main point of contact on ski fields and contact patrol with specific intentions.

Updated on: 28 May 2023

To be Reviewed by: 31 December 2024

Site specific Hazards - Alpine:

These site-specific hazards are reported by Assessors following a NZOIA course. This is only one source of the potential hazards in an area and is quickly outdated. Assessors are responsible for seeking up to date information on the location they are going to work in from other sources for e.g. DOC, local operators, instructors and guides.

Risk	Location of Hazard	Date Identified	Control - What we will do about it – Standard Operating Procedures
Serious Injury or Death - Volcanic Activity – Ash Bombs, lava pathways.	Ruapehu. Whakapapa Ski Field.	31/3/23	The Assessor is accountable for the overall safety of the course and must ensure the below controls are in place Check alert level from GeoNet web site. At alert 1 (normal for Ruapehu) camp out of lahar paths. If the Alert level increases follow DOC restrictions. Be familiar with the routes and pathways of potential lahar flows. Course Director inform ski patrol if operating and camping within the ski field boundaries.
Serious Injury or Death – Collision with other ski field users	Ruapehu. Whakapapa Ski Field.	31/3/23	Course Director to consult and leave intentions with ski patrol. Snow cave site is away from any potential grooming. Be familiar with the area.
Loss of process Goods lift not always	Temple Basin	31/3/23	Consider sleeping low and walking up each day.

running and loading limitations. Lack of sleep in accommodation due to other users.			
Avalanche Patrol routes are also access routes to upper mountain.	Temple Basin	31/3/23	Check daily avalanche forecast and check with ski patrol and go elsewhere if avalanche risk.