



# Managing risks to visitors on public conservation land & waters



## Best Practice Guideline

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This guideline was last reviewed on 11<sup>th</sup> November 2019.

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docCM ID: doc-2852137

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# 1 Purpose

This is a supporting document for the Standard Operating Procedure – Managing risks to visitors on public conservation land.

The purpose of this guideline is to:

- ensure a consistent approach is taken to the treatment of risks associated with new and existing hazards, on lands managed by the Department of Conservation (DOC).
- provide an accessible reference of the best practice management guideline that are imbedded in the Visitor Risk Management Tool.

This guideline is intended for ‘business-as-usual’ management of risk from hazards that may be encountered on public conservation land. It is not intended for management in an emergency.

# 2 Process

The purpose of the standard operating procedure (SOP) is to describe the process for identifying, assessing and managing hazards and the associated risks to visitors on public conservation land, as well as to document decisions.

This process was developed using the Australian/New Zealand Standard AS/NZS ISO 31000:2009 Risk Management. This is a generic framework for establishing the context, identifying, evaluating, treating, monitoring and communicating risk.

Following the procedure will ensure that risks associated with new and existing hazards to visitors can be identified, evaluated, treated, monitored and communicated so that visitors can safely enjoy public conservation land.

The SOP describes the process for making decisions about managing hazards, the associated risks to visitors and how to record how the decision was made. The SOP supports the delivery of the Visitor Risk Management (VRM) Policy implementation.

The SOP is intended for ‘business-as-usual’ management of risk from hazards that may be encountered on public conservation land. It is not intended for management in an emergency.

The Visitor Risk Management Tool supports the process described in the SOP.

For full details of the process, refer to the SOP - [DOC-2852133](#).

# 3 Hazard Register

This document provides guidance on how to manage both permanent and temporary hazards.

The Visitor Risk Management Tool should be used to assess permanent hazards (a hazard that is always present but when managed appropriately the associated risk decreases – e.g. ongoing risk to people from vehicles on roads, and car parks).

The Visitor Risk Management Tool should NOT be used to assess temporary hazards (a hazard that may be completely removed when action is taken e.g. risk from temporary events that utilise DOC car parks, such as sporting events).

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### 3.1.1 Best practice treatment for adverse weather

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors from adverse weather events (this includes snow, ice, rain and wind events). Exclude track service standard issues, such as a poorly cleared, marked or poled track that may result in visitors becoming lost in poor weather.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk from adverse weather events)	<b>Temporary hazard</b> (where event damages a track or site e.g., slip on track)
<b>SST</b>	<ol style="list-style-type: none"> <li>1. Facilities should be able to be used safely in adverse weather.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is mitigated.</li> </ol>
<b>DV ON</b>	<ol style="list-style-type: none"> <li>1. Facilities should be able to be used safely in adverse weather</li> <li>2. Provide shelter if Track or Campsite Service Standards require it.</li> </ol> <p>Note: See Track Standard - section 2.5.3.7 and Campsite Standard – 2.6.2, 3.6.2</p>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is mitigated.</li> </ol>
<b>BCC</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Provide permanent warning signs in huts and track entrances before exposed areas e.g., mountain passes (<i>refer to section 4.2: Best practice principles for On-site safety signs</i>).</li> <li>3. Provide daily weather updates at wardened Great Walk huts.</li> <li>4. Provide shelter if Track Service Standards require it.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is mitigated.</li> </ol>

	Note: See Track Standard section 2.6.3.7, 2.6.6.1.	
<b>BCA</b>	<p>1. Provide pre-visit hazard information.</p> <p>2. Provide daily weather updates at wardened serviced huts and serviced-alpine huts.</p> <p>3. Provide shelter if Track Service Standards require it</p> <p>Note: See Track Standard section 2.7.3.7.</p>	<p>1. Temporarily close site or isolate visitors from hazard using either:</p> <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> <p>2. Publish Visitor Notice until hazard is mitigated.</p>
<b>RS</b>	1. Provide pre-visit hazard information.	1. Do nothing.

### 3.1.2 Best practice treatment for avalanche hazard

<b>Things to consider</b>		
<p>Permanent treatment options relate to the ongoing risk of visitors being caught in an avalanche.</p> <p>Temporary treatment options refer to risks associated with the aftermath of an avalanche e.g. the risk of visitors getting lost or injured by leaving the track to avoid the avalanche or attempting to climb across the avalanche; or the site is rendered completely unsuitable for the predominant visitor group e.g. a track at a day visitor site covered by the avalanche.</p> <p>For sites with high visitation and high avalanche risk, or a complex mix of high and medium risk hazards, do not continue with standard visitor hazard management analysis, instead seek support from the Senior Visitor Advisor - Heritage &amp; Visitors to undertake a complex risk assessment and develop a specific hazard management.</p> <p>Refer to <i>section 6: Best practice guidance for complex hazard assessment</i> for best practice guidance for recognising sites where this approach is needed and implementing this approach.</p> <p>Requirement: Relevant reports and avalanche hazard management plan must be linked in DOCCM.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (where risk of avalanche occurring is believed to be high)	<b>Temporary hazard</b> (an avalanche has occurred)
<b>SST DV ON BCC</b>	<ol style="list-style-type: none"> <li>1. For huts, obtain an avalanche hazard assessment report for the site (use DOCCM-139253).</li> <li>2. For roads and tracks carry out a hazard index assessment and follow the results of the hazard score outcome advice. Special treatment will be needed at highest risk sites by developing an “avalanche hazard management plan” (use Managing Avalanche Risk on DOC Tracks DOC-562569 and Managing Avalanche Risk on DOC Roads DOC-562569).</li> <li>3. Do an avalanche terrain exposure scale (ATES) assessment. Publish assessment on DOC’s avalanche webpage (<a href="http://www.doc.govt.nz/avalanche">http://www.doc.govt.nz/avalanche</a>). Information on the terrain class should be published in any other site information e.g. webpage, brochures.</li> <li>4. When conditions are extreme or high as per hazard index outcome advice enforce closures and restrict access to safe areas.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is mitigated.</li> </ol>

	<p>5. Provide permanent on-site warning signs at each avalanche path and main access points only, e.g. major track entrances or in huts as per hazard index outcome advice.</p> <p>6. Provide pre-visit hazard information</p> <p>7. Re-route track across rather than up avalanche hazard paths to reduce hazard exposure.</p> <p>8. Direct visitors to get specific information from <a href="http://www.avalanche.net.nz">www.avalanche.net.nz</a></p>	
<b>BCA</b>	<p>1. For huts obtain an avalanche hazard assessment report for the site (use DOCCM-139253).</p> <p>2. Direct visitors to get specific information from <a href="http://www.avalanche.net.nz">www.avalanche.net.nz</a></p> <p>3. Provide permanent on-site warning signs where risk is high at main access points only, e.g. major track entrances or in huts.</p> <p>4. Provide pre-visit hazard information.</p> <p>5. For roads, carry out a hazard index assessment and follow the results of hazard score outcome advice.</p> <p>6. Do an avalanche terrain exposure scale (ATES) assessment for well used sites and places. Publish assessment on DOC's avalanche webpage (<a href="http://www.doc.govt.nz/avalanche">http://www.doc.govt.nz/avalanche</a>). Information on the terrain class should be published in any other site information e.g. webpage, brochures.</p> <p>7. Re-route track across rather than up avalanche hazard paths to reduce hazard exposure.</p>	<p>1. Temporarily close site or isolate visitors from hazard using either:</p> <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> <p>2. Publish Visitor Notice until hazard is mitigated.</p>
<b>RS</b>	<p>1. Direct visitors to get specific information from <a href="http://www.avalanche.net.nz">www.avalanche.net.nz</a></p>	<p>1. Publish Visitor Notice until hazard is managed.</p>



### 3.1.3 Best practice treatment for carpark hazards

<b>Things to consider</b>		
Treatment options relate to the risk to visitors from impact with vehicles. Also included are the risks to people (on foot or in vehicles) accessing adjoining State Highways or roads from a carpark, and the risks to people or vehicles within a car park (such as vehicle collisions or injury to pedestrians).		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (ongoing risk to people from vehicles on roads, and car parks)	<b>Temporary hazard</b> (risk from temporary events that utilise DOC car parks, such as sporting events)
<b>SST ON DV BCC BCA RS</b>	<ol style="list-style-type: none"> <li>In high use car parks, car park entrances and exits, where there is concern over visitor safety, employ a road management consultant to advise on: <ul style="list-style-type: none"> <li>Car park entrance and exit design</li> <li>Car park design</li> <li>Pedestrian movement</li> <li>Speed management</li> <li>Signs</li> </ul> </li> <li>Implement advice as resources allow.</li> </ol>	<ol style="list-style-type: none"> <li>Close site to other visitors until vehicle event hazard is managed or finishes.</li> <li>Meet NZ Transport Agency standards for temporary traffic management.</li> <li>Publish Visitor Notice.</li> <li>Install temporary on-site warning signs until event has finished.</li> </ol>

### 3.1.4 Best practice treatment for cave hazards

<p><b>Things to consider</b></p> <p>Hazards at caves are like those on a track and include the risk of a significant fall, getting lost, stream crossings and rock fall.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<p><b>Treatment options</b></p>		
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (risk of a significant fall, getting lost or a rock fall in a cave)</p>	<p><b>Temporary hazard</b> (e.g. rock fall in cave)</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. If a track is provided to the cave meet the requirements of the Track Service Standards, if possible, within the cave. This includes marking, junction signs and, for all except BCA, track surface.</p> <p>2. Describe specific hazards within the cave on a sign at the cave entrance (or track entrance if cave is close to the road end/carpark).</p> <p>3. Refer to the need to take a torch in the pre-visit information.</p> <p>4. If the predominant visitor group lacks the skills to cope with the hazards within a cave, and there is access to the cave:</p> <ul style="list-style-type: none"> <li>• Reroute track away from the cave.</li> <li>• Create vegetation barrier to hide the cave.</li> </ul> <p>If visitors are still likely to “find” the cave after re-routing the track or creating vegetation barrier, describe specific hazards within the cave on a sign at the cave entrance.</p>	<p>1. Temporarily close site or isolate visitors from hazard using either:</p> <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track within cave.</li> </ul> <p>2. Publish Visitor Notice until hazard is managed.</p> <p>3. Clear rock fall in caves with high use.</p>
<p><b>RS</b></p>	<p>1. Do nothing.</p>	<p>1. Do nothing.</p>

### 3.1.5 Best practice treatment for drinking water quality

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors from poor quality drinking water at sites not covered by the hut and campsite service standards (e.g. some amenity areas).</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (where poor water quality is a permanent issue at a facility).	<b>Temporary hazard</b> (where water quality is a temporary issue at a facility e.g. hut or campsite, and can be improved to the required standard)
<b>SST DV</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information</li> <li>2. Where water is supplied (e.g. Piped to a tap), install permanent on-site warning sign.</li> <li>3. Consider treating water at high use sites (e.g. Cape Reinga).</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or facility to isolate visitors from hazard.</li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>ON</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Follow the requirements of the Hut or Campsite Service Standards where relevant and treat water at booked accommodation where appropriate.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install temporary on-site warning signs at facility water source.</li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>BCC BCA</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Follow the requirements of the Hut or Campsite Service Standards.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install temporary on-site warning signs at track entrances.</li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>

### 3.1.6 Best practice treatment for hazards relating to farm animals

<p><b>Things to consider</b></p> <p>Treatment options relate to the risk to visitors from being attacked or accidentally injured by farm animals on tracks that pass-through farms and grazing leases etc.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (risk of being attacked by farm animals)</p> <p>Temporary hazard – not applicable.</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p>	<p>1. At high-use sites provide barriers to separate visitors and farm animals.</p> <p>2. Provide permanent on-site warning signs at site/track entrance.</p> <p>3. Provide pre-visit information about recommended visitor behaviour where farm animals are present.</p>
<p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. Provide pre-visit information about recommended visitor behaviour where farm animals are present.</p>
<b>RS</b>	<p>1. Not applicable.</p>

### 3.1.7 Best practice treatment for fire in facilities

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors from fires within huts or formal or informal campsites associated with lighting, cooking and heating.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (to manage the risk of a fire starting)	<b>Temporary hazard</b> (to manage the risk when fire occurs)
<b>SST DV ON</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Provide permanent on-site warning signs at the entrance to high risk sites to indicate fire prohibition or restricted season status.</li> <li>3. Provide information on fire hazards in campsites as per the Campsite Service Standards (2.12, 3.12).</li> <li>4. Ensure there is a plan for preventing and managing fire in high use areas with a high fire risk.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close site and access.</li> </ol>
<b>BCC</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Provide information on fire hazards in huts and campsites as per the Hut and Campsite Service Standards (Campsite Standard – 5.12, and Hut Standard – 2.10.5, 3.10.5, 4.10.5, 5.10.5).</li> <li>3. Ensure there is a plan for preventing and managing fire in wardened huts and campsites with a high fire risk.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close site and access.</li> </ol>
<b>BCA</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Provide information on fire hazards in huts as per the Hut Service Standards (3.10.5, 4.10.5, 5.10.5).</li> </ol>	<ol style="list-style-type: none"> <li>1. Close site and access</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Close site and access</li> </ol>

### 3.1.8 Best practice treatment for wildfire hazards

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors from wildfires.</p> <p>Ideally this would be done through following the wildfire threat analysis then applying the strategic and tactical fire management plan process which provides for the holistic management of fire and its threats including those to life as well as the ecological threats. However not all districts have adopted this approach due to varying severity of wildfire risk. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (to manage the risk of a fire starting)	<b>Temporary hazard</b> (to manage the risk when fire occurs)
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b> <b>RS</b>	<p>1. Provide pre-visit information. Ensure that the possibility of site closures is publicised via publications, web pages, and that visitor alerts are in place.</p> <p>2. At sites with a history of wildfire use the wildfire threat analysis (WTA) process followed by the strategic and tactical fire management planning process (STFMP) to identify levels of threat and mitigations.</p> <p>In the absence of WTA and or STFMP processes, sites with wildfire risks need:</p> <ul style="list-style-type: none"> <li>• Fire safety management plans</li> <li>• Appropriate fire warning signs.</li> <li>• Fire weather/condition index thresholds established for when high risk activities or access needs to be stopped for things such as off-road vehicles and anything else likely to start fires.</li> <li>• Fire bans.</li> </ul>	<p>1. Close site and access.</p>

### 3.1.9 Best practice treatment for flooding

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors from flooding events on roads, tracks, campsites, huts, and booked accommodation. The treatment options for un-bridged stream and river crossings are covered in 2.17.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (to mitigate the risk to visitors of flooding events where the risk of flooding is believed to be high)	<b>Temporary hazard</b> (to manage a flooding event for the period that it is occurring)
<b>SST DV</b>	<ol style="list-style-type: none"> <li>1. Obtain a geological hazard assessment report for the site (see DOCCM-394511 and use report template DOCCM-394524).</li> <li>2. Carry out mitigation recommendations from geological inspection report.</li> <li>3. On tracks, follow the requirements of the Track Service Standards for dealing with wet areas See Track Standards: SST – section 2.4.4.1 DV – section 2.5.3.1.</li> <li>4. Provide pre-visit information.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>ON</b>	<ol style="list-style-type: none"> <li>1. Obtain a geological hazard assessment report for the site (see DOCCM-394511 and use report template DOCCM-394524).</li> <li>2. Carry out mitigation recommendations from geological inspection report.</li> <li>3. Provide pre-visit information.</li> </ol>	
<b>BCC</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Follow the requirements of the Track Service Standards for dealing with wet areas (Track Standard – section 2.6.3.1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> </ul> </li> </ol>

	3. Develop and implement a plan for managing areas on tracks with a history of flooding.	<ul style="list-style-type: none"> <li>• Temporary re-route/detour of track.</li> </ul> 2. Publish Visitor Notice until hazard is managed.
<b>BCA</b>	1. Provide pre-visit hazard information (e.g. flooding risk on Dusky Track).	1. Publish Visitor Notice until hazard is managed.
<b>RS</b>	1. Do nothing.	1. Do nothing.



### 3.1.10 Best practice treatment for geothermal hazards

<b>Things to consider</b>		
Treatment options relate to the risk to visitors of a fall into an area of geothermal activity or injury from geothermal activity.		
Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of a fall into area of geothermal activity or injury from geothermal activity)	<b>Temporary Hazard</b> (e.g., geothermal activity at a site increases and poses high risks to visitors)
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b>	<ol style="list-style-type: none"> <li>1. If the site is unstable, consider involving GNS Science to monitor the site and identify activity changes.</li> <li>2. To consider significant fall hazards see 2.19.</li> <li>3. If geothermal areas are a feature of interest of an area/track, use construction techniques to confine visitors to viewpoints that are a safe distance away.</li> <li>4. If geothermal areas are not a feature of interest of an area/track, or are too hazardous to lead visitors to, or visitors are likely to find the geothermal feature: <ul style="list-style-type: none"> <li>• Reroute track away from hazard</li> <li>• Create vegetation barrier.</li> <li>• Describe specific hazards on a sign at the track entrance.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Publish Visitor Notice until hazard is managed.</li> </ol>

### 3.1.11 Best practice treatment for geothermal hot pool hazards

<p><b>Things to consider</b></p> <p>Treatment options relate to the risks to visitors from soaking in naturally heated geothermal hot pools, including risk of scalding and meningitis.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (risk of a fall into area of geothermal activity or injury from geothermal activity)</p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. Provide pre-visit hazard information.</p> <p>2. Provide permanent on-site warning sign at hot pool site.</p>

### 3.1.12 Best practice treatment for glacial hazards

<b>HAZARD: GLACIAL - primarily ice and rock falling onto people</b>	
<p><b>Things to consider</b></p> <p>Treatment options relate to the risk of visitors being hit by falling ice and rock from a glacier, including the risk of ice cave collapse.</p> <p>For sites with high visitation and high glacial risk, or a complex mix of high and medium risk hazards, do not continue with standard hazard management analysis, instead seek support from the Senior Visitor Advisor - Heritage &amp; Visitors to undertake complex risk analysis and develop and implement a site-specific hazard management plan.</p> <p>Refer to <i>section 6: Best practice guidance for complex hazard assessment</i> for best practice guidance for recognising sites where this approach is needed and implementing this approach.</p> <p>Requirement: Relevant reports and site-specific hazard management plan must be linked in DOCCM.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<b>Treatment options</b>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (ongoing risk of ice and rock falling from a glacier)</p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p> <p><b>BCC</b></p>	<p>1. Provide pre-visit hazard information.</p> <p>2. Recommend that visitors use concessionaire guided trips to access the glacier.</p> <p>3. Provide viewing opportunities, a safe distance from the hazard, where visitors are unguided.</p> <p>4. Provide permanent on-site warning signs and a visual barrier at the end of the “safe” zone.</p>
<b>BCA</b>	<p>1. Provide pre-visit hazard information.</p>
<b>RS</b>	<p>1. Do Nothing.</p>

### 3.1.13 Best practice treatment for historic structure hazards

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors of a significant fall or injury from a historic structure or unstable material falling from above.</p> <p><b>Note:</b> Most historic structures are treated as visitor structures and are regularly inspected. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (the risk of a significant fall/injury from an historic structure or unstable material falling from above)	<b>Temporary Hazard</b> (e.g., an historic structure is assessed as being unstable or unsafe)
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b>	<p>1. If access is not restricted and structure is a feature of interest of the area/track, inspect the structure as per the Structure Inspection SOP and manage to standard (SNZ HB 8630:2004).2. If access is not restricted and structure is not a feature of interest of the area/track, reroute track away from hazard, create vegetation barrier, include generic hazard warning messages on the track entrance sign.</p> <p>3. If access is restricted and the structure is a feature of interest of the areas/track, consider clearing access, inspect the structure as per the Structure Inspection SOP and manage to standard (SNZ HB 8630:2004).</p>	<p>1. Temporarily close site or structure or isolate visitors from hazard using either:</p> <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> <p>2. Publish Visitor Notice until hazard is managed.</p>
<b>RS</b>	1. Do nothing.	1. Do nothing.

### 3.1.14 Best practice treatment for hazards relating to hunters

<b>Things to consider</b>		
Treatment options relate to the risk to visitors of being shot by hunters.		
Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (throughout the year)	<b>Temporary hazard</b> (during the “roar” only)
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b> <b>RS</b>	1. Provide hazard/safety information to hunters on hunting permits, pamphlets, website, maps. 2. Consider seasonally closing area to hunters at high use sites and/or at high use period (i.e. during the roar). 3. Consider warning other visitors of this hazard at high use periods (i.e. during the roar). To do this generate a Visitor Alert to publicise this via the website. 4. At potentially busy public places such as campsites and amenity areas, consider warning signage or physical indicators where high likelihood of other visitors being present such as judder bars, picnic tables, narrowing gates, tar sealed section etc.	1. Consider warning other visitors of this hazard at high use periods (i.e. during the roar). 2. Generate a Visitor Alert to publicise this via the website.

### 3.1.15 Best practice treatment for mine shafts and tunnels

<b>Things to consider</b>		
<p>Treatment options relate to the risk to visitors of a significant fall into a mine shaft, a rock fall or getting lost in a mine shaft or tunnel.</p> <p><b>Note:</b> Most tunnels and mine shafts are treated as visitor structures and are regularly inspected.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of a significant fall into a mine shaft or getting lost/rock falls in mine shafts and tunnels)	<b>Temporary hazard</b> (e.g. a recent rock fall in a mine shaft or tunnel)
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b></p>	<ol style="list-style-type: none"> <li>1. Provide pre-visit information including the suggestion that visitors bring a torch.</li> <li>2. Consider significant fall hazards see 3.1.27. Note that if access is to be prevented, any barrier will need to be a grill or gate completely blocking the entrance.</li> <li>3. If a track is provided to and through the mine shaft or tunnel meet the requirements of the Track Service Standards, if possible. This includes marking, junction signs and track surface.</li> <li>4. Describe specific hazards within the mine shaft or tunnel on a sign at the track entrance, and include a message about taking a torch.</li> <li>5. If the predominant visitor group lacks the skills to cope with the hazards within a mine shaft or tunnel, and there is access to it: <ul style="list-style-type: none"> <li>• Reroute track to avoid it</li> <li>• Create vegetation barrier to hide it</li> </ul> </li> </ol> <p>If visitors are still likely to “find” a hazardous mine shaft or tunnel after it has been re-routed or hidden, prevent access with a grill or gate over the entrance.</p>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track (if possible).</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>

	7. If the site is unstable, consider involving GNS Science to monitor the site and identify activity changes.	
<b>BCA</b>	<p>1. To consider significant fall hazards see 3.1.27.</p> <p>2. If the predominant visitor group lacks the skills to cope with the hazards within a mine shaft or tunnel, and there is access to it:</p> <ul style="list-style-type: none"> <li>• Reroute track to avoid it</li> <li>• Create vegetation barrier to hide it.</li> </ul> <p>If visitors are still likely to “find” a hazardous mine shaft or tunnel after it has been re-routed, describe specific hazards within the shaft or tunnel on a sign at the track entrance.</p>	<p>1. Temporarily close site or isolate visitors from hazard using either:</p> <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track within mine.</li> </ul> <p>2. Publish Visitor Notice until hazard is managed.</p>
<b>RS</b>	1. Do nothing.	1. Do nothing.

### 3.1.16 Best practice treatment for poisonous / stinging plants

<p><b>Things to consider</b></p> <p>Treatment options relate to the risk to visitors from poisonous/stinging plants (particularly Tree Nettle <i>Urtica ferox</i>).</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b></p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p>	<p>1. Meet the Track Standard for vegetation clearance:</p> <p>SST – section 2.4.6</p> <p>DV – section 2.5.5.</p> <p>ON – not applicable.</p> <p>2. Remove any plants from within a campsite or high use amenity area.</p>
<p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. Meet the Track Standard for vegetation clearance:</p> <p>BCC – section 2.6.5</p> <p>BCA – section 2.7.5.</p>
<b>RS</b>	<p>1. Do nothing.</p>



### 3.1.17 Best practice treatment for river hazards

<b>HAZARD: RIVERS</b> (un-bridged watercourses – rivers and streams)	
<p><b>Things to consider</b></p> <p>Treatment options relate to the risk to visitors from crossing un-bridged rivers and streams. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<b>Treatment options</b>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (to mitigate the risk to visitors of crossing un-bridged watercourses)</p> <p>Temporary hazard – not applicable</p>
<b>SST</b>	1. The Track Service Standards require all watercourses to be bridged (section 2.4.4.3).
<b>DV</b>	<p>1. Provide pre-visit hazard information covering un-bridged streams/rivers that are a significant hazard when in flood or in normal flow.</p> <p>2. The Track Service Standards set out the requirements for bridging major and minor watercourses.</p> <p>See Track Standard DV – section 2.5.3.3</p> <p>3. Provide information in huts on un-bridged streams/rivers that are a significant hazard when in flood.</p> <p>See Hut Standard – 2.10.9, 3.10.9, 4.10.9, 5.10.9</p>
<b>ON</b>	<p>1. Provide pre-visit hazard information covering un-bridged streams/rivers that are a significant hazard when in flood or in normal flow.</p> <p>2. Provide information in huts on un-bridged streams/rivers that are a significant hazard when in flood.</p> <p>See Hut Standard – 2.10.9, 3.10.9, 4.10.9, 5.10.9</p>
<b>BCC BCA RS</b>	<p>1. Provide pre-visit hazard information covering un-bridged streams/rivers that are a significant hazard when in flood or in normal flow.</p> <p>2. The Track Service Standards set out the requirements for bridging major and minor watercourses.</p> <p>See Track Standard BCC - section 2.6.3.3 BCA - section 2.7.4.3 RS – section 2.8.3.3</p> <p>3. Provide information in huts on un-bridged streams/rivers that are a significant hazard when in flood.</p> <p>See Hut Standard – 2.10.9, 3.10.9, 4.10.9, 5.10.9</p>

### 3.1.18 Best practice treatment for rock fall/landslide/lahar hazards

<b>Things to consider</b>		
<p>A permanent hazard is the ongoing risk of visitors (or a significant asset like a hut) being hit by a rock fall/landslide/lahar.</p> <p>A temporary hazard includes visitors getting lost or injured by leaving the track to avoid a rock fall/landslide/lahar or attempting to climb across the rock fall/landslide/lahar.</p> <p>Temporary treatment should also be used if the site or asset is rendered completely unsuitable for the predominant visitor group e.g. a picnic area covered by a landslide.</p> <p>For sites with high visitation and high rock fall/landslide/lahar risk, or a complex mix of high and medium risk hazards, do not continue with standard hazard management analysis, instead seek support from the Senior Visitor Advisor - Heritage &amp; Visitors to undertake a complex risk assessment and develop a specific hazard management plan.</p> <p>Refer <i>section 7: Best practice guidance for complex hazard assessment</i> for guidance for recognising sites where this approach is needed and implementing this approach.</p> <p>Requirement: Relevant reports and site-specific hazard management plan must be linked in DOCCM.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (to mitigate the risk to visitors of rock fall etc. where the risk is believed to be high)	<b>Temporary hazard</b> (a significant rock fall or landslide or lahar has occurred)
<b>SST</b> <b>DV</b> <b>BCC</b> <b>BCA</b> <b>ON</b>	<ol style="list-style-type: none"> <li>1. If the site is unstable, consider involving GNS Science to monitor the site and identify activity changes.</li> <li>2. Obtain a geological hazard assessment report for the site (see DOCCM-394511 and use report template DOCCM-394524). Carry out mitigation recommendations from the geological inspection report.</li> <li>4. Permanent on-site hazard warning signs should not be used unless recommended in a geological hazard report, or considered appropriate by local manager.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is mitigated.</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. If a hut, obtain a geological hazard assessment report for the site (see DOCCM-394511 and use report template DOCCM-394524).</li> <li>2. Carry out mitigation recommendations from the geological inspection report.</li> </ol>	<ol style="list-style-type: none"> <li>1. Publish Visitor Notice until hazard is managed.</li> </ol>

	3. If a track, do nothing.	
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### 3.1.19 Best practice treatment for Ropes (fixed) and fixed climbing anchors

<p><b>Things to consider</b></p> <p>Treatment actions relate to fixed ropes and climbing anchors permanently installed on-site by visitors.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (fixed climbing anchors or ropes may fail due to deterioration. Non-climbers may interfere with fixed climbing anchors or ropes, placing themselves or climbers at risk.)</p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b> <b>RS</b></p>	<p>1. For fixed ropes: remove fixed ropes whenever they are found.</p> <p>2. For fixed climbing anchors: leave climbing anchors in place if they are in climbing locations where other visitor groups generally are not present or are unlikely to find and attempt to use them (unless the fixed climbing anchors are causing environmental damage to priority ecosystem units, threatened or at-risk species, or geo-preservation sites).</p> <p>3. If fixed anchors are causing environmental damage, or are likely to be found and used by other visitor groups, remove anchors and install onsite signage to discourage the practice of installing permanent climbing anchors. Liaise with relevant Iwi, the New Zealand Alpine Club (NZAC) and other recreation groups as relevant to determine those areas where new or additional fixed anchors are either acceptable or unacceptable to the relevant recreation community and the Department.</p>

### 3.1.20 Best practice treatment for hazards relating to seals

<b>HAZARD: SEALS (including sea lions, etc.)</b>	
<p><b>Things to consider</b></p> <p>Treatment options relate to the risk to visitors from being attacked by seals or sea-lions. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<b>Treatment options</b>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (risk of being attacked by seals)</p> <p>Temporary hazard – not applicable</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p>	<p>1. At high-use sites, provide barriers to separate visitors and seals</p> <p>2. Provide permanent on-site warning signs at site/track entrance</p> <p>3. Provide pre-visit information about recommended visitor behaviour where seals are present</p>
<p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. Provide pre-visit information about recommended visitor behaviour where seals are present</p>
<b>RS</b>	<p>1. Do nothing</p>

### 3.1.21 Best practice treatment for shared use - biking

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where shared use occurs with bikers and other activities. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of injury from contact with mountain bikes on tracks)
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. Promote a “share with care” etiquette directed at biking activity in pre-visit information</p> <p>2. Provide relevant pre-visit information. Include: mountain bikers code, mountain bike grading system explanation, tread lightly code, outdoor safety code, Adventure smart fact sheet in relevant webpages and publications. Provide relevant symbols and hazard warnings on track entrance signs. Provide relevant symbols on directional signs.</p> <p>3. Where mountain biking is allowed, meet the Track Standard for shared use tracks:</p> <p>SST - section 2.4.9 DV - section 2.5.8 ON – not applicable. BCC - section 2.6.8 BCA – section 2.7.9.</p>
<b>RS</b>	1. Do nothing

### 3.1.22 Best practice treatment for shared use - 4WD

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where shared use occurs with 4wd and other activities. Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of injury from contact with 4wd's on tracks)
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. Promote a “share with care” etiquette directed at 4wd activity in pre-visit information.</p> <p>2. Provide relevant pre-visit information. Include: tread lightly code and shared use track code of conduct in relevant webpages and publications. Provide relevant symbols and hazard warnings on track entrance signs. Provide relevant symbols on directional signs.</p>
<b>RS</b>	1. Do nothing.

### 3.1.23 Best practice treatment for shared use – horse riding

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where shared use occurs with horse riders and other activities.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of injury from contact with horses on tracks)
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p> <p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. Promote a “share with care” etiquette directed at horse riding activity in pre-visit information.</p> <p>2. Provide relevant pre-visit information. Include: horse riding care code, tread lightly code and outdoor safety code in relevant webpages and publications. Provide relevant symbols and hazard warnings on track entrance signs. Provide relevant symbols on directional signs.</p>
<b>RS</b>	1. Do nothing.



### 3.1.24 Best practice treatment for shared use – all-terrain vehicle (ATV) quad biking

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where shared use occurs with ATV (quad) bike riding and other activities.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (risk of injury from contact with quad bikes on tracks)</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. Promote a “share with care” etiquette directed at quad riding activity in pre-visit information.</p> <p>2. Provide relevant pre-visit information. Include: tread lightly code and outdoor safety code in relevant webpages and publications. Provide relevant symbols and hazard warnings on track entrance signs. Provide relevant symbols on directional signs.</p>
<p><b>RS</b></p>	<p>1. Do nothing.</p>

### 3.1.25 Best practice treatment for shared use –trail bike riding

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where shared use occurs with trail bike riding and other activities.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of injury from contact with trail bikes on tracks)
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p> <p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. Promote a “share with care” etiquette directed at trail bike riding activity in pre-visit information.</p> <p>2. Provide relevant pre-visit information. Include: tread lightly code and outdoor safety code in relevant webpages and publications. Provide relevant symbols and hazard warnings on track entrance signs. Provide relevant symbols on directional signs.</p>
<b>RS</b>	<p>1. Do nothing.</p>

### 3.1.26 Best practice treatment for shared use – non-permitted activity

<p><b>Things to consider</b></p> <p>Treatment options relate to sites where a mix of activities is occurring, but this is not the Department's intention for the site. The Department's intention may be to allow one activity or a mix of activities but may also be to exclude some activities. (E.g. mountain bikes and 4wd's and ATV's are OK, but horses and trail bikes not).</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (risk of injury from contact with visitors participating in activities that are not permitted at the site.)</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b> <b>RS</b></p>	<p>1. Bikes, 4wd's, horse riders, ATV's and trail bikes should be excluded by way of kissing gates/barriers and signs at track entrances.</p> <p>2. Provide pre-visit information clearly stating which other activities are not allowed.</p>

### 3.1.27 Best practice treatment for significant falls

<b>Things to consider</b>		
<p>There are many situations where visitors could fall and where the consequences of such a fall could be serious harm or death. For the purposes of this guideline, these are defined as “significant falls”. “Serious harm” is defined in the Tracks and Outdoor Visitor Structures handbook (p12).</p> <p>Significant falls from a track have been identified and recorded in AMIS through the track baseline inspection process. However, the next step - determining what mitigation actions are required - has not been taken for most. The process in this guideline should be applied to all significant falls identified on tracks, and to all other situations where significant falls could occur (such as at campsites, amenity areas, in caves, geothermal areas, tomos, tunnels and mine shafts).</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of significant fall from a track or at other facilities and places)	<b>Temporary hazard</b> (e.g., a slip that takes away a section of track exposing visitors to a significant fall)
<b>SST</b> <b>DV</b> <b>ON</b>	<ol style="list-style-type: none"> <li>On a track, meet the requirements of the Track Service Standards and construct a guardrail or barrier. See Track Standard SST - section 2.4.4.5. DV - section 2.5.3.5 ON – not applicable.</li> <li>At a campsite or amenity area, construct a guardrail or barrier unless it is feasible to create a vegetation barrier or physically prevent access to the hazard in some other way.</li> <li>On-site signs should not be used to mitigate a permanent significant fall hazard on these sites unless on site sign is considered the only effective management option.</li> </ol>	<ol style="list-style-type: none"> <li>Temporarily close site or isolate visitors from hazard using either: Temporary warning/danger sign at track/site entrance Warning/hazard tape Temporary barrier Temporary re-route/detour of track.</li> <li>Publish Visitor Notice until hazard is mitigated.</li> </ol>
<b>BCC</b>	<ol style="list-style-type: none"> <li>Meet the requirements of the Track Service Standards (section 2.6.3.5) and construct a guardrail or barrier where there is no reasonable option such as: Widening the track, or</li> </ol>	<ol style="list-style-type: none"> <li>Temporarily close site or isolate visitors from hazard using either: Temporary warning/danger sign at track/site entrance Warning/hazard tape Temporary barrier</li> </ol>

	<p>diverting/re-routing the track.</p> <p>2. On-site signs should not be used to mitigate a permanent significant fall hazard on these sites unless on site sign is considered the only effective management option.</p>	<p>Temporary re-route/detour of track.</p> <p>2. Publish Visitor Notice until hazard is mitigated.</p>
<b>BCA</b>	<p>1. Meet the requirements of the Track Service Standards (section 2.7.4.5) and consider constructing a guardrail, barrier, chain or hand wire where there is no other reasonable option such as re-routing the track.</p> <p>2. For sites other than tracks consider constructing a guardrail, barrier, chain or hand wire where there is no other reasonable option.</p> <p>3. On-site signs should not be used to mitigate a permanent significant fall hazard on these sites unless on site sign is considered the only effective management option.</p>	<p>1. As for BCC.</p>
<b>RS</b>	<p>1. If a track, assess whether to provide a ladder, chain or hand wire</p> <p>See Track Standard - section 2.8.3.4 and 2.8.3.5</p> <p>2. On-site signs should not be used to mitigate a permanent significant fall hazard on these sites unless on site sign is considered the only effective management option.</p>	<p>1. Publish Visitor Notice until hazard is managed.</p>

### 3.1.28 Best practice treatment for tidal and rogue waves

<p><b>Things to consider</b></p> <p>Treatment options relate to the risk of visitors on tracks or at other sites from tidal hazards or from large rogue waves.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (from high tides or being swept away by rogue waves)</p> <p><b>Temporary hazard</b> – not applicable</p>
<b>SST</b> <b>DV</b> <b>ON</b>	<ol style="list-style-type: none"> <li>1. Consider building structures (bridges, boardwalks) to elevate visitors above the hazard zone.</li> <li>2. Re-route track or construct viewing area away from the hazard zone</li> <li>3. Install permanent on-site warning signs and include tide/wave warnings on track/site entrance signs.</li> </ol>
<b>BCC</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information, emphasising the need to check tide timetables.</li> <li>2. Provide alternative high tide tracks to avoid hazard</li> <li>3. Install permanent on-site warning signs.</li> </ol>
<b>BCA</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>

### 3.1.29 Best practice treatment for tomos

<p><b>Things to consider</b></p> <p>Treatment options relate to the risk of a significant fall into a tomo.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (risk of significant fall into a tomo)</p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p> <p><b>BCC</b></p> <p><b>BCA</b></p>	<p>1. To consider significant fall hazards see 3.1.27</p> <p>2. Describe specific hazards associated with tomos on a sign at the track entrance.</p> <p>3. If the predominant visitor group lacks the skills to cope with the tomo hazards, reroute track to avoid them if possible.</p>
<b>RS</b>	<p>1. Do nothing.</p>

### 3.1.30 Best practice treatment for tree-fall hazards

<b>Things to consider</b>		
<p>Treatment options relate to the risk of visitors being hit by a falling tree/branch (a “permanent hazard”) or the risk of visitors getting lost (by leaving the track to avoid the obstacle) or major treefall event rendering the site completely unsuitable for use by the predominant visitor group (a “temporary hazard”). Where necessary a trained senior chainsaw operator or specialist arborist contractor should be engaged for assessing tree-fall hazards. The process set out in <a href="#">DOC-6052567</a> (a brief visual check for hazardous trees as part of normal duties in the field) should be followed by operations staff. Note that tree-fall hazards on tracks and roads are not a priority for assessment, apart from high use viewing and stopping places, as the risk of trees falling on people using them is very low.</p> <p><b>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</b></p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b> (risk of being hit by falling tree/branch). The checklist in DOC-6052567 should be used to assess trees.	<b>Temporary hazard</b> (risk of getting lost, by leaving the track to avoid the obstacle, or major treefall event rendering the site completely unsuitable for use)
<b>SST DV</b>	<ol style="list-style-type: none"> <li>1. Assess tree-fall hazards at amenity areas and carparks where there is high use and where visitors stop and congregate for long periods of time (e.g. at lookouts, picnic tables or toilets).</li> <li>2. Assess tree-fall hazards at structures and high use viewing areas or interpretation signs, where visitors stop, as part of their ongoing inspection.</li> <li>3. Remove trees/branches where staff, a trained senior chainsaw operator or a specialist (e.g. arborist) believe the risks are high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign at track/site entrance</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>ON</b>	<ol style="list-style-type: none"> <li>1. Assess tree-fall hazards at campsites and vehicle accessible visitor accommodation as part of regular staff checks until an ongoing inspection process is in place.</li> <li>2. Remove trees/branches where staff, a trained senior chainsaw operator or a specialist (e.g. arborist) believe the risks are high.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either: <ul style="list-style-type: none"> <li>• Temporary warning/danger sign at site entrance</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier.</li> </ul> </li> <li>2. Publish Visitor Notice until hazard is managed.</li> </ol>
<b>BCC BCA</b>	<ol style="list-style-type: none"> <li>1. Assess tree-fall hazards at huts as part of their ongoing inspection.</li> </ol>	<ol style="list-style-type: none"> <li>1. Temporarily close site or isolate visitors from hazard using either:</li> </ol>



	<p>2. Assess tree-fall hazards at Great Walk and backcountry campsites as part of regular staff checks until an ongoing inspection process is in place.</p> <p>3. Assess tree-fall hazards at structures and high use viewing areas or interpretation signs, where visitors stop, as part of their ongoing inspection.</p> <p>4. Remove trees/branches where staff, a trained senior chainsaw operator or a specialist (e.g. arborist) believe the risks are high.</p>	<ul style="list-style-type: none"> <li>• Temporary warning/danger sign at track/site entrance</li> <li>• Warning/hazard tape</li> <li>• Temporary barrier</li> <li>• Temporary re-route/detour of track.</li> </ul> <p>2. Publish Visitor Notice until hazard is managed.</p>
<b>RS</b>	1. Do nothing.	1. Do nothing.

### 3.1.31 Best practice treatment for volcanic hazards

<b>HAZARD: VOLCANIC</b>		
<p><b>Things to consider</b></p> <p>Treatment options relate to the risk from a volcanic event or localised volcanic activity.</p> <p>For sites with high visitation and high volcanic risk, or a complex mix of high and medium risk hazards, do not continue with standard hazard management analysis, instead seek support from the Senior Visitor Advisor - Heritage &amp; Visitors, to undertake a complex risk assessment and develop a specific hazard management.</p> <p>Refer to <i>section 6: Best practice guidance for complex hazard assessment</i> for best practice guidance for recognising sites where this approach is needed and implementing this approach.</p> <p>Requirement: Relevant reports and site-specific hazard management plan must be linked in DOCCM.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>		
<b>Treatment options</b>		
<b>Visitor Type</b>	<b>Permanent hazard</b>	<b>Temporary hazard</b>
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b> <b>RS</b>	1. Use Tongariro National Park risk process and monitor site in conjunction with GNS to identify activity changes. 2. Produce a volcanic hazard and risk assessment plan. 3. Produce a volcanic response management plan. 4. Produce a volcanic hazards public awareness plan.	1. Temporarily close site or isolate visitors from hazard using either: Temporary warning/danger sign at track/site entrance Warning/hazard tape Temporary barrier Temporary re-route/detour of track. 2. Publish Visitor Notice until hazard is managed.

### 3.1.32 Best practice treatment for wasps

<b>HAZARD: WASPS</b>	
<p><b>Things to consider</b></p> <p>Treatment options relate to the risk to visitors from wasp stings.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<b>Treatment options</b>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (risk from wasp stings usually a seasonal hazard)</p> <p><b>Temporary hazard</b> – not applicable</p>
<b>SST</b> <b>DV</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Consider controlling wasp numbers at high use amenity areas.</li> </ol>
<b>ON</b>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information</li> <li>2. Meet the requirements of the Campsite Service Standards. See Campsite Standard: Sections 2.1.3, 3.1.3 and 4.1.3.</li> </ol>
<b>BCC</b> <b>BCA</b>	<p>Provide pre-visit hazard information</p> <p>Meet the requirements of the Campsite Service Standards for great walk and backcountry campsites. See Campsite Standard: Sections 5.1.3 and 6.1.3.</p> <ol style="list-style-type: none"> <li>2. Meet the requirements of the Hut Service Standards. See Hut Standard: Sections 2.3.3, 3.3.3, 4.3.3 and 5.3.3.</li> </ol>
<b>RS</b>	<p>Meet the requirements of the Hut Service Standards for basic huts. See Hut Standard, section 5.3.3.</p>

### 3.1.33 Best practice treatment for water-based activities

<b>HAZARD: WATER-BASED ACTIVITIES</b>	
<p><b>Things to consider</b></p> <p>Treatment options relate to known significant hazards to visitors undertaking water based activities within or accessed from public conservation lands such as swimming kayaking, canoeing, boating, diving and snorkelling.</p> <p>Provision of pre-visit hazard information is a standard approach for managing all hazards. 4.1 describes what pre-visit information should be provided and where it should be placed.</p>	
<b>Treatment options</b>	
<b>Visitor Type</b>	<p><b>Permanent hazard</b> (risk from visitors undertaking water based activities such as swimming, kayaking, canoeing, boating, diving and snorkelling)</p> <p><b>Temporary hazard</b> – not applicable</p>
<p><b>SST</b></p> <p><b>DV</b></p> <p><b>ON</b></p> <p><b>BCC</b></p> <p><b>BCA</b></p>	<ol style="list-style-type: none"> <li>1. Provide pre-visit hazard information.</li> <li>2. Where appropriate, work with Surf Lifesaving New Zealand, local surf clubs, and police to establish a volunteer group supplying visitors with local knowledge and handing out water safety information, and maintain any national swimming hazard signage as part of their ongoing role.</li> <li>3. Provide on-site hazard warning signs where this is considered appropriate.</li> </ol>
<b>RS</b>	<ol style="list-style-type: none"> <li>1. Do nothing.</li> </ol>

# 4 Best practice guidance for provision of safety information

## 4.1 Best practice guidance for pre-visit information

<p><b>Things to consider</b></p> <p>Treatment options apply to all hazards except car parks. Standard safety publications to be used for pre-visit information are listed below by hazard type. Some hazards also have specific pre-visit hazard information requirements. These are detailed within the best practice guide for the relevant hazards.</p>	
<p><b>Treatment options</b></p>	
<b>Visitor Type</b>	<b>Permanent hazard</b>
<b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b>	<p>1. Provide pre-visit hazard information.</p> <p>Quality - information to describe hazard, consequences and visitor behaviour required. Information to be provided (or referenced) in all relevant mediums - brochures, webpages (text and web links to relevant safety codes).</p>
<b>RS</b>	<p>1. Consider providing pre-visit hazard information only if seen as appropriate by local manager or if prompted to do so by the hazard-specific best practice guide.</p>

<p><b>Standard safety publications by hazard type</b></p>	
<b>Hazard</b>	<b>Publication</b>
<b>Adverse weather</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Snow code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> <li>4. Mountain weather forecasts</li> <li>5. Avalanche alerts - Avalanche Terrain Exposure Scale and Backcountry Avalanche Advisory brochure</li> <li>6. Adventure Smart website</li> </ol>
<b>Avalanches</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Snow code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> <li>4. Mountain weather forecasts</li> <li>5. Avalanche alerts - Avalanche Terrain Exposure Scale and Backcountry Avalanche Advisory brochure</li> <li>6. Adventure Smart website</li> </ol>

<b>Carparks</b>	N/A
<b>Caves</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>7. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Drinking water quality</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Farm Animals</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Fire in facilities</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>1. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Wildfire</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Flooding</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> <li>3. Mountain weather forecasts</li> <li>4. Adventure Smart website</li> </ol>
<b>Geothermal hot pools</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Geothermal</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Glacial hazards</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Snow code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> <li>4. Mountain weather forecasts</li> <li>5. Avalanche alerts - Avalanche Terrain Exposure Scale and Backcountry Avalanche Advisory brochure</li> <li>6. Adventure Smart website</li> </ol>
<b>Historic Structures</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Hunting</b>	<ol style="list-style-type: none"> <li>1. Firearms safety code</li> <li>2. Outdoor safety code</li> <li>3. Tread lightly code</li> <li>4. Mountain Safety Council activity guides (choose those appropriate)</li> <li>5. Mountain weather forecasts</li> <li>6. Adventure Smart website</li> </ol>

<b>Mine shafts and tunnels</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Poisonous/stinging plants</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> </ol>
<b>Rivers</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> <li>3. Mountain weather forecasts</li> <li>4. Adventure Smart website</li> </ol>
<b>Rockfall/landslide/lahars</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Ropes and fixed climbing anchors</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> <li>3. Mountain weather forecasts</li> <li>4. Adventure Smart website</li> </ol>
<b>Seals</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Shared Use - Biking</b>	<ol style="list-style-type: none"> <li>1. Mountain bikers' code</li> <li>2. Outdoor safety code</li> <li>3. Mountain weather forecasts</li> <li>4. Mountain Safety Council activity guides (choose those appropriate)</li> <li>5. Adventure Smart website</li> </ol>
<b>Shared use – 4wd</b>	<ol style="list-style-type: none"> <li>1. Tread lightly code</li> <li>2. Outdoor safety code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Shared use – horse riding</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Horse riding care code</li> <li>3. Tread lightly code</li> <li>4. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Shared use – trail bike riding</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Tread lightly code</li> <li>5. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Shared use ATV quad bike riding</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Tread lightly code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>

<b>Shared use – non-permitted activity</b>	N/A
<b>Significant falls</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Tidal/Rogue waves</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Water safety code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Tomos</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>
<b>Treefall hazards</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> </ol>
<b>Volcanic hazards</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Snow code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> <li>4. Mountain weather forecasts</li> <li>5. Avalanche alerts - Avalanche Terrain Exposure Scale and Backcountry Avalanche Advisory brochure</li> <li>6. Adventure Smart website</li> </ol>
<b>Wasps</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> </ol>
<b>Water based activities</b>	<ol style="list-style-type: none"> <li>1. Outdoor safety code</li> <li>2. Water safety code</li> <li>3. Mountain Safety Council activity guides (choose those appropriate)</li> </ol>

## 4.2 Best practice principles for On-site safety signs

Differentiation between hazard signage and general information signage is important. If safety messages are incorporated into road-end information signs, then the safety message content should be highlighted by the use of red text on a white background. Also, people are far more likely to comply with signage if they understand the potential consequences of non-compliance. Pictorial signage is more effective than text-only signage and has the advantage of being effective for visitors who may not be able to read English.

### 4.2.1 Road-end signs and decision point signs (green and yellow)

Orientation signs provided as per the standard template described in the Outdoor Signs Manual should follow the advice of NZS: 8603; 2005 Design and application of outdoor recreation symbols.

Include map with hazard locations/zones clearly shown.



Where parts of a track are managed to different standards 'change of standard' signs should be installed to inform visitors when they are at the threshold of the lower standard. This includes tracks that are managed to different standards on a seasonal basis.

#### **4.2.2 Specific hazard warning signs (red and white)**

The use of hazard warning signs (excepting road-end hazard information signs) should be minimised in the back country, where visitors are expected to have skills and experience that enables them to recognise hazards and adopt appropriate behaviour. The exception to this should be where hazards are not easily recognisable or where vulnerable visitors are present in sufficient numbers to warrant hazard warning signage to compensate for their lower skill and experience level.

Specific hazard warning signs should be noticeable. To be noticed, hazard safety signs should be:

- Of a shape, size and colour that contrasts with surroundings and attracts attention (white text on a red background).
- Differentiated from surrounding information if incorporated into information signs.
- Located close to the centre of vision as visitors' approach.
- Orientated perpendicular (rather than parallel) to major visitor pathways.

Specific hazard warning signs should be readily understood. To be readily understood, safety information should include:

- A graphic visual demonstration of the hazard.
- Short, familiar words including signal words (DANGER, WARNING) denoting the level of hazard.
- Large and well-spaced text which can be read from a comfortable viewing distance, with a mixture of upper and lower case in easily read fonts (such as Helvetica or Times). Signal words should be larger than text, and in colour.
- Languages (e.g. Mandarin) in addition to English where appropriate (or use diagrams or symbols).
- The signal word DANGER or WARNING, highlighted in specific colours to denote the level of hazard. Red and yellow are standard risk level indicator colours which should be used consistently.
- A statement of the hazard (with symbol if possible). Messages should be limited to a small number of issues, perhaps as few as two.
- An example of the possible consequences. The potential severity of outcomes is critical to risk perception.
- Simple instructions on how to avoid the hazard. Use injunctive (ought) or proscriptive (do not) messages.

Specific Hazard warning signs should be compliance-inducing. To encourage compliance, safety signs should:

- Be located near the site of the hazard.
- Be authorised by a credible source.

- Include circle slash negation symbols, however these must not conceal critical features of symbols with the slash.
- Describe the intended behavioural response.

## 5 Best practice guidance for places where vulnerable visitors are present

<p><b>Things to consider</b></p> <p>This best practice guide provides details of additional management actions to be applied at sites where vulnerable visitors are present in sufficient numbers to cause concern for their safety.</p> <p>Vulnerable visitors are those that do not have the skills, knowledge, fitness or experience of the predominant visitor group that the destination is managed for. These people may overestimate their skill level, or do not access important information prior to a trip and therefore attempt outdoor experiences for which they do not have adequate outdoor skills or risk awareness. Where there are a large proportion of vulnerable visitors at a destination, DOC needs to manage the hazards and the associated risks to visitors accordingly for this group also.</p> <p>These additional management actions are to be applied <b>only</b> in selected locations (defined below), for selected hazards, <b>not</b> for specific activities such as biking, four-wheel driving, horse-riding, ATV-bike riding or trail-bike riding (these activities have specific best practice guides).</p> <p><u>Selected locations</u> are those where sufficient numbers of more vulnerable visitors are present or where incident patterns highlight the need.</p> <p><u>Selected hazards</u> are those hazards where it is necessary to implement additional risk management actions that are not required for the predominant visitor group, but are required to support the less experienced visitors and compensate for their reduced ability to recognise hazards and make prudent, informed decisions.</p>	
<p><b>Treatment options</b></p> <p>Generally, the response should be provision of additional pre-visit information to compensate for visitors' reduced ability to recognise hazards and make prudent, informed decisions. In some cases, additional on-site safety signage should also be provided.</p>	
<p><b>Visitor Type</b></p>	<p><b>Permanent hazard</b> (The following hazards are likely to need additional management actions if vulnerable visitors are present: Adverse weather, Avalanche, Glacial, Mine shafts and tunnels, Volcanic)</p>
<p><b>SST</b> <b>DV</b> <b>ON</b> <b>BCC</b> <b>BCA</b></p>	<p>1. If the vulnerable visitor group lacks the skills to cope with the hazards, provide additional pre - visit safety messages to compensate for their reduced ability to recognise hazards and make prudent, informed decisions. See 4.1 for standard safety publications to be used for pre-visit information.</p> <p>2. If the vulnerable visitor group lacks the skills to cope with the hazards, provide permanent on-site hazard warning signs at the entrance to the track to compensate for their reduced ability to recognise hazards and make prudent, informed decisions.</p>

	3. Provide permanent on-site hazard warning signs at hazard location - refer to permanent on-site warning sign best practice guide.
<b>RS</b>	1. Do nothing.

## 6 Best practice guidance for complex risk assessment

This section provides guidance for where a complex risk assessment approach is required. This approach should only be implemented with support from the Senior Visitor Advisor and the Principal Advisor Visitor Risk - Heritage & Visitors. The degree to which this assessment is done will depend on the complexity of the situation. In some situations, it may mean doing a straight forward quantitative assessment of a single hazard then using the information from that to inform a decision on what to do at a site.

In the more complex sites such as the small number of high-use high natural hazard places e.g. Tongariro Alpine Crossing, Fox Glacier and Franz Josef Glacier access and the Fiordland Great walks, it may mean combining several different hazard quantitative assessments with some qualitative analysis and visitor behaviour information. This is also likely to involve considering risks other than visitor risks such as staff safety, reputational risks, financial risks and risks associated with the stakeholders involved.

With the high use, high natural hazard sites, a standard qualitative visitor risk management approach does not let a manager know whether they are managing these types of sites in an appropriate manner, i.e. so that visitors are not placed at greater risk than the visitors and society will tolerate.

The risk evaluation matrices in section 8 include a red sector which recognises that high scores for risk likelihood and consequence may indicate that the hazard requires a more complex assessment approach. Other instances where a complex assessment approach may be warranted include places with a complex mix of multiple hazards or a mix of activities.

The quantitative risk management part of complex assessment has two components:

**1. Quantifying the risk** – a calculation (based on international best practice methodology) is used to determine the probability of incidents occurring.

**2. Risk Thresholds** – are acceptable tolerance levels for visitor risk. Policy and societal acceptance will inform what the acceptable level is.

These two pieces of information allow us to know if hazards are being managed to the right level:

Not enough, or the wrong sort of risk management means the likelihood of mass casualties is too high. (This can be calculated and would be in any incident investigation).

Too much effort or the wrong effort will waste resources, deprive visitors of experiences and paradoxically may lead to an increased incident rate.

## 7 Best practice guidance for positive risk

<p><b>Things to consider</b></p> <p>This best practice guide provides on how to identify if a recreation experience includes an aspect of positive risk that is important to the visitor experience.</p> <p>Positive risk is where a hazard provides a recreation opportunity desired by the predominant visitor group, despite the negative risks associated with it. Some hazards may be the primary attraction or a feature of the site e.g. a geyser or a tomo like Harwoods Hole. Other hazards may form part of the experience e.g. fireplaces in huts. If this is the case, management options should be carefully considered to avoid de-valuing the experience that visitors are seeking.</p>	
<p><b>Treatment options</b></p> <p>When the hazard assessment team selects treatment options for hazards that include an aspect of positive risk, care should be taken to ensure that it is preserved.</p>	
<b>Category</b>	<b>Explanation</b>
Activity experience	<p>The risk involved in the experience is a key part of the attraction to the participant.</p> <p>The visitor does not want the land manager to undertake management actions that interfere with their recreation experience.</p> <p>The visitor seeks out this risk.</p> <p>e.g. rock climbing, mountaineering.</p>
Natural experience	<p>The visitor tolerates the risk in outdoor natural environment because the enjoyment of participation outweighs the risk.</p> <p>The visitor does not want the land manager to undertake management actions that interfere with their experience in nature.</p> <p>e.g. swimming in a river, walking in the wilderness.</p>
Historic experience	<p>The visitor tolerates the risk in environments where historic elements are present because the enjoyment of participation outweighs the risk.</p> <p>The visitor does not want the land manager to undertake management actions that interfere with their experience at the site.</p> <p>e.g. exploring a historic mining site.</p>
Cultural experience	<p>The visitor tolerates the risk because the enjoyment of participation in a cultural experience outweighs the risk.</p> <p>The visitor does not want the land manager to undertake management actions that interfere with their experience in nature.</p> <p>e.g. fires in huts or campsites, e.g. visiting a Maori pa site.</p>
Access to get to an experience	<p>To gain access to a desired place the visitor tolerates the risk.</p> <p>e.g. hazardous access to a hunting spot in the backcountry.</p>

# 8 Visitor Risk& Safety support

A Senior Visitor Advisor - Heritage & Visitors can be contacted in the first instance to provide support or direct staff to specialist support. Some common types of assistance that the Senior Visitor Advisor can provide includes:

- Support for Operations Managers and their staff in running business-as-usual hazard management processes
- Support for Operations Managers and their staff where a local situation means that standard advice built into Visitor Risk Management Tool is not appropriate
- Support for Operations Managers and their staff where they believe they have a subset of vulnerable visitors at a destination and need to know how to meet their specific needs.
- Support for Operations Managers and their staff where they manage a high visitation, high-risk or high-profile destination that requires complex risk analysis and/or a site-specific hazard management plan
- Support for Operations Managers and their staff when they need to undertake a visitor incident investigation.
- Support for Operations Managers and their staff to help identify which low level incidents/near misses should be investigated.

Other services that the Senior Visitor Advisor - Heritage & Visitors can provide include:

- Analysis of the number of incidents and incident investigations taking place
- Monitoring the quality of incident investigations report and overseeing the assigning of resources to ensure learning is being achieved and shared widely.
- Provide one national point of contact for working with the Coroner and other partners.
- Monitor and provide reports

# 9 Terminology and definitions

**AMIS** – The Department of Conservation’s Asset Management Information System.

**Assyst** – A tool used to manage shared services. It provides an online catalogue where DOC staff can request all the shared services. It is also a fully backed up database where providers record and track their work.

**BCC** - Visitor type = back country comfort seeker.

**BCA** - Visitor type = back country adventurer.

**Consequence** - The outcome of an event expressed qualitatively or quantitatively, being a loss, injury, disadvantage or gain. There may be a range of possible outcomes associated with an event.

**DV** - Visitor type = Day visitor.

**Event** - An incident or situation, which occurs in a particular place during a particular interval or time.

**Gap analysis** - A gap analysis is used to examine the "gap" or "difference" between where risk management is compared with where we would like it to be.

**Hazard** - A source of potential harm or a situation with a potential to cause loss.

**Likelihood** - Used as a qualitative description of probability or frequency.

**Monitor** - To check, supervise, observe critically, or record the progress of an activity, action or system on a regular basis in order to identify change.

**ON** – Visitor type = overnighter.

**On-site notification tools e.g. on-site signs** - Warning signs put up at the site e.g. at the start of the track, before the hazard, at track junctions or at huts. On-site signs should only be used if the risks are very high. Note that if a site is closed it will not need additional on-site warning signs as there will already be signs marking its closure.

**Permanent Hazard** – A hazard that is always present but when managed appropriately the associated risk decreases – e.g. ongoing risk to people from vehicles on roads, and car parks.

**Positive risk** - where a hazard provides a recreation opportunity desired by the predominant visitor group, despite the negative risks associated with it.

**Pre-visit information** - DOC publications, the DOC website, and DOC visitor centres where appropriate i.e. the safety display at the Tongariro National Park Visitor Centre about the Tongariro Crossing (a site with high visitor numbers and the generally the first-place visitors go to before walking the track).

**Probability** - The likelihood of a specific event or outcome measured by the ratio of specific events or outcomes to the total number of possible events or outcomes.

**Quantitative Hazard Assessment** – A systematic, two stage process of establishing risk thresholds and quantifying risk.

**Risk Thresholds** – acceptable tolerance levels for visitor risk. Policy and societal acceptance will inform what the acceptable level is.

**Risk** - The chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood.

**Risk analysis** - A systematic use of available hazard information to determine how often specified events may occur and the magnitude of their consequences.

**Risk assessment** - The overall process of risk analysis and risk evaluation.

**Risk assessment matrix** - A matrix for each visitor group (short stop traveller, day visitor, overnigher, backcountry comfort seeker, backcountry adventurer, remoteness seeker) that illustrates the level of risk that the predominant visitor group is and is not prepared to accept at each site.

**Risk assessment team** - The team tasked with undertaking the Visitor Risk Management process.

**Risk evaluation** - The process used to determine hazard management priorities by comparing the level of risk against predetermined standards, target risk levels or other criteria.

**Risk identification** - The process of determining what can happen, why and how.

**Risk management** - The culture, processes and structures directed towards effective management of potential opportunities and adverse effects.

**Risk management process** - The systematic application of management policies, procedures and practices to the tasks of establishing the context for, identifying, analysing, evaluating, treating, monitoring and communicating risk.

**Risk register** - A national register of generic risks

**Risk treatment** - Selection and implementation of appropriate management actions for dealing with risk.

**RS** - Visitor type = Remote seeker.

**SST** - Visitor type = Short stop traveller.

**Temporary Hazard** - A hazard that may be able to be completely removed when action is taken e.g. risk from temporary events that utilise DOC car parks, such as sporting events.

**Visitor Notice** - Notice published about changes to pre-visit information as relevant to the predominant visitor group. The notice must be published and put up on notice boards in visitor centres as well in relevant pages on the DOC website.

**Visitor Risk Management Tool** – A tool to facilitate and record the identification of visitor hazards, their analysis, and management.

**Vulnerable visitor group** – those visitors to a destination that do not have the skills, knowledge, fitness or experience of the predominant visitor group that the destination is managed for.

## 10 Related documents

[Visitor Risk Management Policy – DOC-1562377](#)

[Visitor Risk Management Policy Summary – DOC-2774979](#)

[Visitor Risk Management Tool](#)

[Managing risk to visitors on public conservation land Standard Operating Procedure –DOC-2852133](#)

[Visitor Incident Investigation Guideline- DOC-569409](#)

# 11 About this document

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**Date Approved:** 2 May 2018

## **Approval record:**

[Approval memo](#) (doc-5478761)

## **Amendments**

<b>AMENDMENT DATE</b>	<b>AMENDMENT DETAILS</b>	<b>DOCCM VERSION</b>	<b>AMENDED BY</b>
8/11/2017	Review/edit – HSE changes	1.0	Emma Greig/Jane Roberts
20/12/2018	Review/edit – HSE changes	1.1	Mark Beardsley
20/03/2018	Review/edit – HSE changes	1.2	Mark Beardsley
06/11/2019	Install the Heritage & Visitor structure	1.3	Mark Beardsley



12/12/2019	Updated tree-fall section	1.4	Mark Beardsley
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