GOOD PRACTICE GUIDELINES

Adventure and outdoor recreation activities – managing the risks from natural hazards

GUIDANCE FOR ADVENTURE ACTIVITY OPERATORS AND OUTDOOR RECREATION ACTIVITY PROVIDERS

March 2025

Te Kāwanatanga o Aotearoa
New Zealand Government

WORKSAFE
Mahi Haumaru Aotearoa

These guidelines provide advice on managing risks from natural hazards that participants, workers and others may be exposed to during an adventure activity or outdoor recreation activity.

ACKNOWLEDGEMENTS

WorkSafe would like to acknowledge and thank the stakeholders who have contributed to the development of this guidance.

Adventure and outdoor recreation activities – managing the risks from natural hazards

KEY POINTS

- Adventure activity operators (operators) have various duties under health and safety legislation.
- As persons conducting a business or undertaking (PCBUs), operators must ensure the health and safety of workers and others when carrying out work and manage related risks, so far as is reasonably practicable.
- Operators must also manage serious risks to participants' health and safety that adventure activities deliberately expose participants to.
- As part of these obligations, operators must assess and manage risks from natural hazards.
- Other PCBUs who provide similar outdoor recreation activities (providers) also have duties or obligations to manage risks from natural hazards.

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1.0 About these guidelines

IN THIS SECTION:

Natural hazards can put people's health and safety at risk. These guidelines help adventure activity operators and outdoor recreation activity providers manage these risks.

1.1 What are these guidelines about?

These guidelines provide advice on ways to manage health and safety risks related to natural hazards, for those providing adventure activities and outdoor recreation activities.

New Zealand's regulatory environment requires operators to meet specific health and safety obligations under the Health and Safety at Work Act 2015 (HSWA) and the Health and Safety at Work (Adventure Activities) Regulations 2016. PCBUs who provide adventure activities, a specific type of recreation activity, must be registered with WorkSafe and pass a safety audit to ensure they meet required safety standards.

Every person conducting a business or undertaking (PCBU) must manage adventure or outdoor recreation risks, including risks from natural hazards that are a key part of the activity they provide.

These guidelines focus on natural hazards that pose the greatest risk of serious injury or death to workers and others participating in activities. They include:

- an overview of natural hazards
- good practice advice on managing natural hazard risks that:
  - are a planned part of the activity's risks
  - are not planned as part of the activity's risks but may still be present or happen during the activity.

1.2 Who should read these guidelines?

These guidelines are for any PCBU who:

- is registered as an adventure activity operator
- runs similar outdoor recreation activities in areas with natural hazards. They include PCBUs who do not need WorkSafe registration as an adventure activity operator but have duties or obligations under the Health and Safety at Work Act 2015 (HSWA). These include a range of tourism and recreation activity providers such as schools, sports and recreation clubs, and tertiary education providers.

The guidelines will also be helpful for those who have applied or will apply for registration to provide adventure activities in the future.

We use the following icons to show which PCBU the content applies to:

All PCBUs

All PCBUs who are registered with WorkSafe to provide adventure activities (adventure activity operators), and all other PCBUs who provide similar outdoor recreation activities (outdoor recreation activity providers).

Registered operators

Only those PCBUs who are registered with WorkSafe to provide adventure activities.

Other PCBUs

Includes only those PCBUs who provide outdoor recreation activities but are not registered with WorkSafe as adventure activity operators.

1.3 How these guidelines can help

You may have duties or obligations under certain regulations when managing risks in your adventure or outdoor recreation activity. To manage risks, including serious risks, you need to understand which rules apply to your activity.

These guidelines help explain your duties and obligations under:

- the Health and Safety at Work Act 2015 (HSWA)
- the Health and Safety at Work (Adventure Activities) Regulations 2016 (Adventure Activities Regulations)
- the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 (GRWM Regulations). The regulations' hierarchy of control measures (HoC) is a good model for managing risks, even if you are not required to use it. For more information, see Hierarchy of control measures and Figure 7: Hierarchy of control measures for managing risks
- the Safety Audit Standard (version 2.0) – Safety management system requirements for adventure activity operators (SAS). This standard sets out the requirements that operators must comply with to reduce risks when providing adventure activities.

For information about your duties, see Appendices 3 to 6

1.4 How to use these guidelines

These guidelines explain key health and safety duties and obligations related to natural hazards under HSWA and related regulations. They include:

- examples of hazards to watch for
- guidance on assessing the risks those hazards may pose
- examples of practical ways to manage those risks.

Use of 'must', should' and 'could'

In these guidelines:

- 'must' is used when referring to a legal requirement that has to be complied with
- 'should' and 'could' are used when referring to a recommended practice or approach.

Key terms

You can find a list explaining the technical words, terms, and abbreviations used in these guidelines in Appendix 1: Glossary

Lists

Examples in lists are not meant to be complete. They may include some, but not all, possible examples.

Images

Images are a guide only. They are not intended to provide technical specifications.

1.5 What is an adventure activity?

An adventure activity is a paid recreational or educational experience on land or water. It involves guiding, teaching, or assisting people with an activity that deliberately exposes them to serious risk. The provider of the activity must manage these risks. All adventure activity operators must register with WorkSafe to provide these activities.

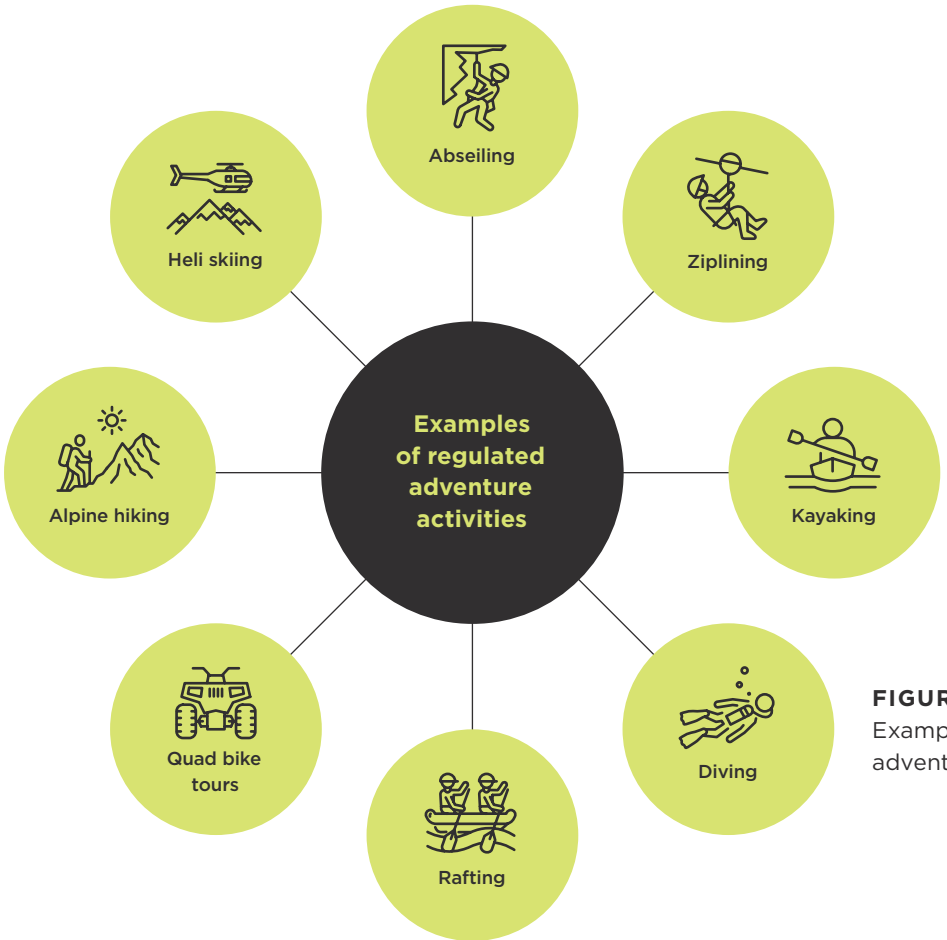


FIGURE 1:
Examples of regulated adventure activities

For more information, see What we mean by adventure activity and Schedule 2 of the Health and Safety at Work (Adventure Activities) Regulations 2016

2.0
Manage risks from natural hazards

IN THIS SECTION:

Natural hazards can cause serious injury or death, so it is important you have an effective process for managing these risks.

A natural hazard can be a planned part of an adventure activity or outdoor recreation activity, posing a serious risk that people understand and accept, such as white-water rafting on a fast-flowing river. Other hazards may exist in the background or happen during the activity, such as flooding, landslips, treefalls, avalanches, or icefalls.

Regardless of the type of risk from natural hazards, you must manage it according to your duties and obligations.

For more information, see Section 5.0: Manage the risks of identified natural hazards

All PCBUs

2.1 Risk management approach

Risk management is not a one size fits all approach. However, we recommend all PCBUs to use the following process:

- identify natural hazards that your workers and others may be exposed to, which could lead to foreseeable risks to their health and safety
- assess these risks to decide which ones to deal with first
- decide if it is reasonably practicable to eliminate the risk from a natural hazard. If it is not, decide what control measures are reasonably practicable to minimise the risks
- assess and manage any remaining risks
- regularly review your control measures.

Using a risk management process, like the one in Figure 2, will help you identify and manage risks from natural hazards.

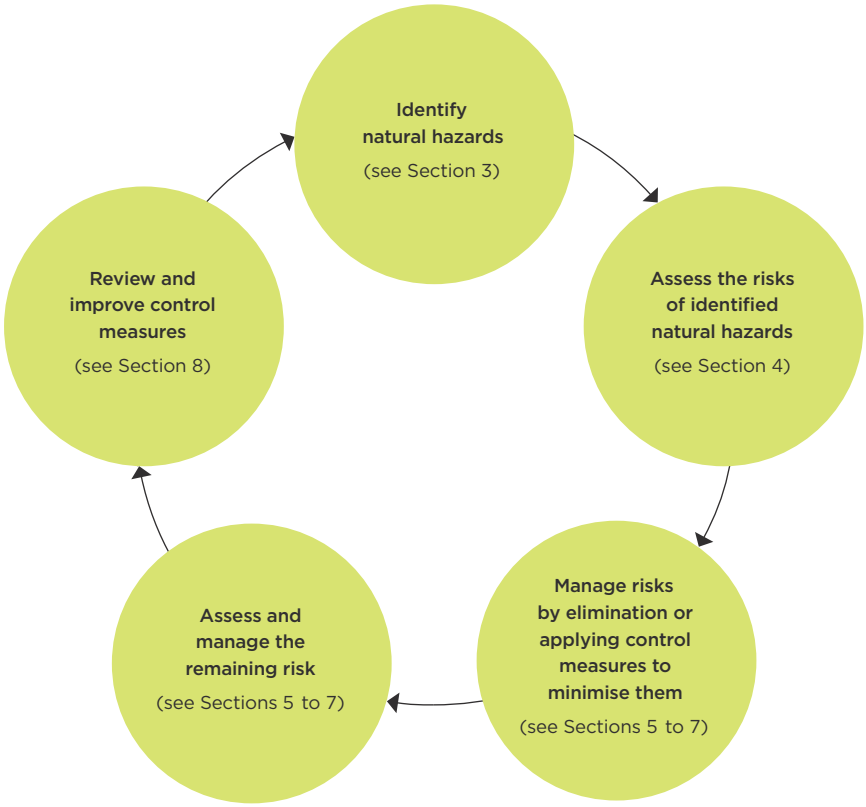


FIGURE 2: Risk management approach

All PCBUs

You must engage with your workers and their representatives when identifying hazards, including natural hazards, and assessing health and safety risks. You must also engage with them when making decisions about how to eliminate or minimise those risks. Additionally, you must have practices that give your workers reasonable opportunities to participate in continuous health and safety improvements.

Registered operators

You may have additional duties if you are a registered operator.

For more information, see section 4.0 Risk and hazard management of the SAS and Appendix 5: Worker engagement, participation, and representation (Part 3 of HSWA)

2.2 Work with other PCBUs to manage risk

All PCBUs

Sometimes, more than one PCBU has the same health and safety duties for an activity. This means they share overlapping duties.

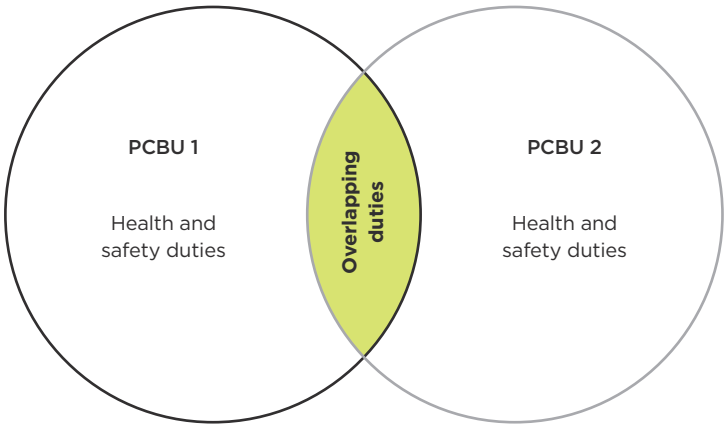


FIGURE 3: Overlapping duties

Here are some examples of overlapping duties:

- If an activity happens on land owned or managed by someone else, the land owner or land manager may also have a duty to manage natural hazard risks.
- When another PCBU provides part of the activity, such as transport to and from the activity site.
- When different PCBUs offer multiple adventure activities as a package.

PCBUs with overlapping duties must work together by consulting, cooperating, and coordinating their activities with each other.

A PCBU can agree with another PCBU to fulfil specific duties, but all PCBUs remain responsible for meeting their own legal duties. A PCBU cannot transfer or contract out their duties or pass liability to someone else.

For more information, see Overlapping duties and Information for land owners and land managers when adventure activities are being provided on their land

For information about your duties under HSWA, see Appendix 6: The Health and Safety at Work Act 2015 duties

Example: Overlapping duties between two PCBUs

Diving Adventures is a registered operator that offers guided diving experiences. Diving Transport provides boat transport services for Diving Adventures, taking workers and people participating to and from diving locations, and staying on-site during the activity.

Both Diving Adventures and Diving Transport must make sure the health and safety of their workers, people participating, and their activities are not put at risk, so far as is reasonably practicable.

They agree to consult, cooperate, and coordinate with each other daily, considering Diving Transport's knowledge of boat capability, comfort, and anchorage security, along with Diving Adventures' knowledge of underwater hazards like currents.

They also agree that if any worker or other person needs first aid on the boat or during the diving activity, Diving Transport will provide and administer it.

3.0 Identify natural hazards

IN THIS SECTION:

Assessing the area your adventure or outdoor recreation activity operates in helps you spot natural hazards.

To comply with your duty to manage risks, you need to identify hazards in your operating area, including natural hazards, that could risk the health and safety of workers and others. You must engage with your workers when identifying hazards.

Identify natural hazards that are:

- part of the activity, such as river rapids when white-water rafting, cliffs when abseiling, trees blocking a zipline path, or snow and ice when skiing. These are natural hazards with risks that people understand and accept when participating in the activity
- in the background or could happen during the activity, such as flooding, landslips, treefalls, avalanches, or icefalls.

Understanding these hazards and their risks will help you manage them.

All PCBUs

If you are a registered operator, you must have systems to identify the serious risks arising from natural hazards in your operating area. You must also work with a technical adviser to identify hazards – including natural hazards.

For more information about when to use a technical adviser, see Appendix 2: Technical advisers

Registered operators

3.1 Know your operating area

Knowing your operating area and its features helps you identify natural hazards.

Natural hazards that are not part of the activity may not always be present or may never have happened in your area, but that does not mean they cannot happen. Understanding past hazards in your area can help you identify future risks.

Look for signs of potential hazards or factors that could increase their risk. For example, a cliff with unstable debris, vegetation, or loose rocks may indicate a higher risk of a landslip.

If you operate on private land, you should ask the land owner or land manager about past and potential natural hazards, that could affect the activities you provide. Use any readily available information to assess risks.

All PCBUs

For more information, see Section 3.5: Natural hazards that could happen in your operating area

For information about land owner and land manager duties, see Information for land owners and land managers when adventure activities are being provided on their land

All PCBUs

3.2 Check your operating area regularly

It is important to regularly assess natural hazards that could affect your operation as they can be unpredictable and change over time.

You should regularly check your operating area to see if:

- a new natural hazard has appeared
- a known hazard has changed, increasing the risk to workers or others
- environmental changes suggest a natural hazard may happen
- new data or knowledge indicates a potential hazard.

How often you check depends on your activity, identified natural hazards, and their risks.

Remember: when identifying natural hazards, consider the entire activity including planning, setup, travel to and from the site, the activity itself, and pack-up.

If you are a registered operator and you need help or are unsure when to assess natural hazards, ask your technical adviser.

For more information about when to use a technical adviser, see Appendix 2: Technical advisers

Registered operators

3.3 Check your incident and injury records

All PCBUs

You should review your incident and injury records, including near misses, to see if any incident or injury involved natural hazards. If you still operate in the same area, treat them as identified hazards.

If you are a new adventure activity operator or outdoor recreation activity provider without records, you should ask other operators or providers about hazards that have caused incidents or injuries in the area you operate. You should check with other available resources and, if you are a registered operator, also check with your technical adviser.

3.4 Resources to help identify natural hazards

All PCBUs

You should use resources such as weather forecasts, local warnings, and historical data to identify, understand, and assess natural hazard risks. These can also help you manage changing risks as new information becomes available.

Figure 4 shows some examples of useful resources.

FIGURE 4: Examples of resources to help identify natural hazards

3.5 Natural hazards that could happen in your operating area

Table 1 shows examples of:

- environments where activities may take place
- natural hazards that can happen in those environments
- signs that a natural hazard might happen or become more likely.

Note: The table does not cover all possible signs of a natural hazard in your operating area. If you are a registered operator, ask your technical adviser if you are unsure.

All PCBUs

OPERATING ENVIRONMENT	NATURAL HAZARD	SIGNS TO LOOK FOR
Any outdoor environment **Note**: Storms can affect any activity and may trigger other hazards (such as treefalls, landslips, and flooding)	 **Storm**: high winds, extreme hot or cold weather, lightning, heavy rain, hail, thunder, snowstorm	– heavy rain forecast in a flood-prone area – heavy rain forecast that may affect your operating area (such as the upper catchment of a river) – electrical storm forecast in an area previously adversely affected by one – high winds forecast in an area with a history of tornadoes – current conditions make forecast weather more hazardous
An active volcano such as: – Whakaari | White Island – Mt Ruapehu – Mt Ngauruhoe – Mt Tongariro – Raoul Island	 **Volcanic activity**: steam, magma, lava, ashfall from active vents	– rising ground temperature – more frequent or stronger tremors or earthquakes – ground swelling – increased heat flow – increased gas emissions – changes to hot springs
On or near a: – slope – hillside – cliff – mountain	 **Landslip**: moving debris, mud, sand, soil, rock, or water down a slope	– small slips or mudflows – unstable debris, vegetation, or rocks – noticeable ground movement – saturated ground after rain – sounds of shifting debris, vegetation, or rocks
Avalanche terrain on or near a snow-covered: – slope – hill – cliff – mountain	 **Snow avalanche**: falling or sliding snow	– recent avalanches – unstable snow on steep terrain – rapid new snowfall – sudden temperature changes (sun or rain) – increasing wind speed or shift in wind direction
On/in or near a: – a slope – hillside – cliff – mountain – cave – canyon	 **Rockfall**: sudden fall or collapse of rock	– loose rocks – recent ground movement – recent heavy rainfall – extreme low temperatures
Under, on or near a: – glacier On or near an ice-covered: – slope – hillside – cliff – mountain	 **Icefall**: falling ice blocks from glaciers or ice-covered areas	– sustained above-freezing temperatures – rapid warming – signs of melting – recent icefall or collapse

OPERATING ENVIRONMENT	NATURAL HAZARD	SIGNS TO LOOK FOR
On/in or near a: – river – stream – dry watercourse – gorge – cave – canyon Below a snow or ice-covered: – slope – hillside – cliff – mountain	 **Flooding**: river and surface flooding due to rain including upstream rain, ice/snow melt, or enclosed space flooding	– debris, vegetation, or rocks in river catchments – saturated ground – changing water levels – heavy rain forecast in an area that may affect your operating area (such as upper river catchments) – snow or ice melting into rivers or streams – tidal changes – heavy rainfall
In, on or near an: – ocean – lake – tsunami zone	 **Water surge**: tidal surges, rogue waves, tsunami, seiches on lakes or underground waters	– increasing wind speed – drop in atmospheric pressure – history of seiche or swells – recent earthquake increasing tsunami risk
In or near a: – grass plain – forest – bush	 **Wildfire**: unplanned or unwanted fire in a natural area (such as a forest or grassland)	– drought conditions (such as dry grass and vegetation) – prolonged high temperatures

All PCBUs

TABLE 1: Signs to help identify natural hazards in your area

Note: Earthquakes are excluded from this guidance because they can happen on such a large scale that participating in an activity does not significantly increase the risk from ground shaking. However, risks from natural hazards that can result from earthquakes, like tsunamis and rockfalls, are included.

4.0 Assess the risks of identified natural hazards

IN THIS SECTION:

Work with your workers and technical adviser to assess risks and choose the best control measures.

Health and safety risks come from people being exposed to hazards – anything that can cause harm.

After identifying the natural hazards in your operating area, assess the risks for each one. You must involve your workers when assessing risks.

Consider:

- how likely it is that someone will be exposed to the hazard
- the potential harm (consequences) if exposure happens.

FIGURE 5: Components of risk

Consider the factors in Figure 6 when assessing risks from natural hazards.

All PCBUs

FIGURE 6: Examples of factors that may affect level of risk

Remember:

- Regularly assess natural hazard risks. They can change over time due to natural events or new scientific knowledge.
- How often you assess depends on your activity, the hazards identified, and their risk level. Ask your technical adviser if unsure.
- Check that previous risk assessments are still relevant and that no new hazards have emerged.

All PCBUs

You must have systems to assess the serious risks arising from natural hazards in your operating area. A technical adviser can give advice specific to your adventure activity and the natural hazards in your operating area.

For more information about when to use a technical adviser, see Appendix 2: Technical advisers

Registered operators

4.1 Likelihood of exposure to a natural hazard

All PCBUs

Natural hazards are unpredictable, can change over time, and depend on various factors, making the chance of a worker or others being exposed to them uncertain.

Knowing whether a natural hazard is a key part of the activity can help you assess how likely it is to happen and the risks it may pose.

Workers and participants are more likely to encounter hazards that are expected for the activity (such as rapids in whitewater rafting), than unexpected ones (such as a sudden rockfall near a hiking trail).

To help you assess the chance of someone being exposed to a natural hazard:

- consider factors such as the time of year, weather, climate, and area conditions
- seek advice from a suitable technical adviser and check with land owners, land managers, GNS Science, and other resources listed in Section 3.4: Resources to help identify natural hazards

Table 2 shows some factors to consider when assessing the chance of exposure to harm from a natural hazard.

QUESTION	FACTORS TO CONSIDER

When is the natural hazard present in your operating area?	– is it part of the activity and always present
	– if it is not part of the activity, could it happen:
	  - fairly often, but is hard to predict such as sudden rockfalls on a steep track
	  - less regularly, but can be predicted with some confidence such as an avalanche in specific conditions
	  - after certain events, such as soil becoming saturated and unstable after heavy rainfall, leading to a landslip
	– is there updated information available about the area that indicates a risk of the natural hazard happening
	– what does the latest information from local councils and GNS mean for your operating area
	– what is the history of this natural hazard happening in your operating area

What factors could influence when the natural hazard will be present or happen?	– are there specific times of day or year when the hazard is more likely to happen – are there seasonal variations in risk levels – are there certain activities or tasks that increase exposure to the hazard – are there specific areas where the hazard is more likely to happen – does recent, current, or forecasted weather affect when the hazard may happen – are there areas more severely affected or vulnerable to a specific natural hazard – does the current condition of the area impact when the natural hazard may happen

TABLE 2: Assess the chance of exposure to harm from a natural hazard

4.2 Potential harm of exposure to a natural hazard

All PCBUs

Workers and others exposed to a natural hazard are at risk of serious harm to their health and safety, which could lead to serious injuries or even death.

Examples of how people can be harmed when exposed to natural hazards during activities include:

- **hypothermia**: dangerously low body temperature from exposure to cold conditions, such as wind, rain, snow, ice, or water
- **hyperthermia**: dangerously high body temperature from prolonged exposure to heat or the sun
- **injuries**: sprains, fractures, or head injuries from slips, falls, or impacts from falling snow, ice, debris, mud, sand, soil, rocks, vegetation, trees or branches
- **burns**: from volcanic ash, steam, gas, or fire
- **lung injuries**: from inhaling volcanic toxic gases, steam, ash, or smoke
- **eye injuries**: from volcanic steam and gas
- **cuts**: from trips, falls, or impacts with falling debris or loose materials such as mud, sand, soil, rock, vegetation, trees or branches
- **crush injuries**: from being trapped under snow, debris, mud, sand, or soil.

People exposed to multiple natural hazards face a higher risk of serious harm. An activity with many people participating increases the risk of multiple serious injuries.

Depending on the nature of the hazard, participants may be at greater risk of serious harm than workers because:

- they lack the knowledge, skills, and experience to respond to the hazard like workers do
- they may be unfamiliar with the activity and operating area.

Table 3 shows some factors to consider when assessing potential harm from a natural hazard.

QUESTION	FACTORS TO CONSIDER
Who could be exposed to the natural hazard?	– people participating in an activity – workers involved in the activity – other people nearby during the activity or work – other PCBUs operating or providing activities in the area
Do you have any workers or others who are at greater risk of serious harm?	– workers and others with varying levels of fitness and ability, including young people or children – elderly people – people with language barriers
What type of harm could happen?	– injury, including serious injury – death
How serious could a resulting injury be?	– injury that can be treated with first aid at the scene – injury that may require emergency services to attend (possibly to an isolated area) – injury that is likely to cause permanent disability or death (even with emergency services response)
Do you have enough workers during the activity to assess new risks?	– are workers trained to make decisions on managing risks from natural hazards during an activity – do workers have access to alert systems, such as weather and fire hazard alerts, while on the activity – is there a backup plan to identify and manage risks from natural hazards if the responsible worker becomes incapacitated

TABLE 3: Assess potential harm to workers and others

Important: If you identify more than one natural hazard, consider how they may interact and whether this increases the risk to the health and safety of your workers and others.

All PCBUs

Example

Hills Adventures identified that workers and others could be exposed to several natural hazards during their hike.

Since natural hazards can be unpredictable and affected by weather changes, Hills Adventures must identify which hazards workers and others may be exposed to and assess the risks before and during the hike.

They must consider how each natural hazard interacts and whether this could create further risks, such as significant rainfall increasing the chance of rockfalls or avalanches, which would raise the risk of injury to workers and others.

5.0 Manage the risks of identified natural hazards

IN THIS SECTION:

While it may not be possible to eliminate all risks from natural hazards, you can minimise the exposure to workers and others.

When managing risks, your operation may have duties or obligations under HSWA, GRWM Regulations, and for all registered operators – the safety audit standard. You will need to know what applies to your activity.

All PCBUs

5.1 Manage risks from natural hazards

1. You must first eliminate risks by removing the source of harm, so far as is reasonably practicable. For example, cancel the activity or move it to a safer location.
2. If it is not reasonably practicable to eliminate the risk, minimise it so far as is reasonably practicable.
3. Engage with your workers (or their representatives) so far as is reasonably practicable when:
   - identifying hazards and assessing risks
   - deciding how to eliminate or minimise those risks.
4. After assessing risks with your workers, and a technical adviser if you are a registered operator, you should decide which control measures are reasonably practicable for the activity and your operation. Examples of control measures include replacing the hazard with something less risky; isolating the hazard; and/or using engineering controls. So, to minimise **serious risks** from natural hazards you could:
   - spend less time in areas with possible hazards
   - avoid areas that could be affected by the hazard
   - change the activity type.
5. You should make sure your workers understand the control measures and how to apply them. You should have clear criteria for when to use each measure before and during activities.

What is **reasonably practicable** depends on your circumstances and may vary between operators and providers. For more information, see Appendix 4: So far as is reasonably practicable section 22 of HSWA

Risks built into adventure and outdoor recreation activities

You may not be able to fully eliminate risks that are part of an activity (for example, white water in rafting), in which case you must minimise them so far as is reasonably practicable.

Example: guided mountain tour

Hills Adventures is taking a group up the mountain. They check all available resources, including reports from a technical adviser (an expert on natural hazards on mountains), to assess natural hazard risks.

It is autumn, so there is little snow, no recent or forecasted snowfall, and a low fire risk. However, heavy rain over the last three weeks increases the likelihood of a landslip on their usual route.

They determine that a landslip could pose a serious risk to workers and others, though no other natural hazards are identified.

Since they cannot eliminate the risk completely, they choose a different route with a much lower landslip risk to minimise it. Workers and others are informed of the risk and route change, and participants confirm they still want to proceed.

All PCBUs

In addition to these general requirements, registered operators must also meet specific requirements detailed below.

The SAS requires adventure activity operators to use the HoC (Figure 7) to manage serious risks, including those from natural hazards. The SAS defines 'serious risks' as 'a chance of a notifiable event'.

Note: The hierarchy of controls is slightly different for operators when managing serious risks. See Safety Audit Standard (version 2.0)

For serious risks that:

- people are deliberately exposed to as part of the activity (for example, the risk of hitting rocks when white-water rafting), and that cannot be fully eliminated; you must minimise them so far as is reasonably practicable such as choosing a safer line or using helmets
- people are not deliberately exposed to; you must eliminate them so far as is reasonably practicable. If you cannot eliminate the risks, you must minimise them so far as is reasonably practicable.

Use the most effective control measures to minimise serious risks that cannot be eliminated.

For more information, see section 4.0 Risk and hazard management of the SAS and Section 10.0: Notify WorkSafe of an event

Registered operators

5.2 Manage particular risks from natural hazards

PCBUs must follow the risk management process in the GRWM Regulations when managing **particular risks** to health and safety. These risks, set out in the GRWM Regulations, include:

- **risks associated with remote or isolated work**:
  - work can be remote or isolated due to location, time, or its nature. For example, a worker may be in a remote area with limited access to emergency services such as a hospital or fire station, far from their team who would respond first in an incident, or in a location with poor communication.
  - you must provide a work system with effective communication to minimise this particular risk.
- **risks associated with falling objects**:
  - for example, falling ice, rocks, vegetation, or trees reasonably likely to fall on and injure workers or others

All PCBUs

- if you cannot eliminate the risk associated with a falling object, you must maintain a safe work system to minimise it. For example:
  - › remove loose rock or hazardous vegetation where possible
  - › tether equipment to climbers
  - › avoid or reduce people spending time in impact zones.
- after minimisation controls are in place, use personal protective equipment (PPE) (such as helmets) to address the residual risk.

PCBUs must use the HoC (Figure 7) set out in the GRWM Regulations to manage these and other particular risks. If elimination of the risk is not reasonably practicable, PCBUs must minimise the risks so far as is reasonably practicable.

The HoC is slightly different for registered operators. See Safety Audit Standard (version 2.0)

You must make sure control measures to manage particular risks remain effective. Keep them:

- fit for purpose
- suitable for the work's nature and duration
- installed, set up, and used correctly.

The GRWM Regulations' HoC is a good model for managing all risks, even if you are not required to use it.

For more information, see General requirements for workplaces

All PCBUs

5.3 Hierarchy of control measures for managing risks

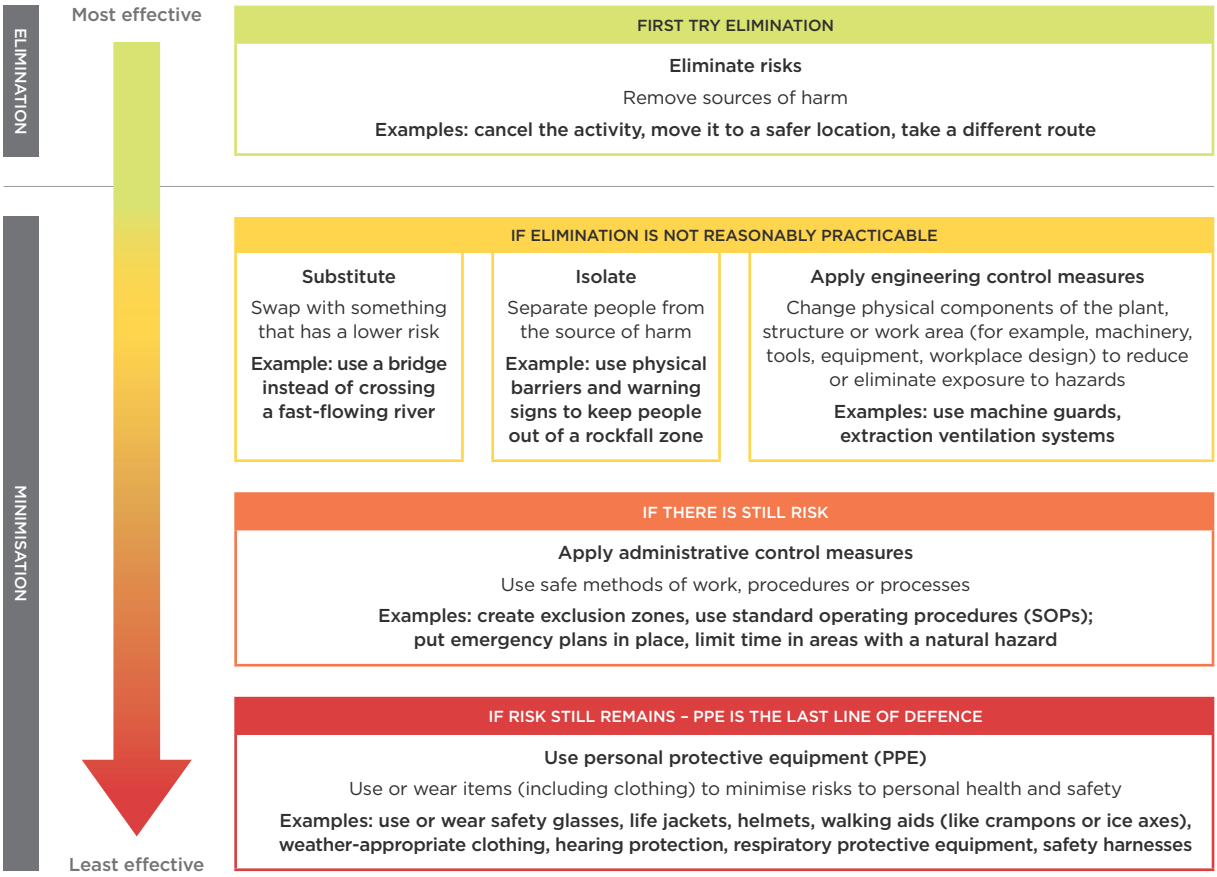


FIGURE 7: Hierarchy of controls for managing serious and particular risks

Once you put all control measures in place, determine whether the remaining risk is acceptable to continue the activity. Consider:

- **the risk** level for your operation
- **who may** be affected
- **any potential** harm.

You must cancel the activity if you cannot manage the risk to an acceptable level that ensures the health and safety of workers and others.

The HoC is slightly different for registered operators. See Safety Audit Standard (version 2.0)

All PCBUs

6.0 Dynamic risk management

IN THIS SECTION:

Workers who assess and manage risks during adventure or outdoor recreation activities, play a key role in risk management to keep themselves and others safe.

Dynamic risk management means regularly checking high-risk or changing environments during an activity and effectively managing any new risks. Natural hazards can change or become more likely due to factors such as erosion, climate change, or weather events.

All PCBUs

To manage risks that develop during activities, you should:

- create safety plans so workers know when and how to act. Make sure plans have clear trigger points that tell workers which control measures to use when they identify a risk
- train workers to quickly identify natural hazards that could increase the risk of harm. They can then assess risks and apply control measures to continue the activity safely or cancel it completely. For example, a worker may cancel a kayaking trip if heavy rain increases the risk of a flash flood.

For more information, see:

- Section 7.0 Trigger points to apply control measures
- Section 9.0 Develop and maintain an emergency plan and
- General risk and workplace management – part 1

In addition to outlining control measures for serious risks, your SOPs must:

- require staff to continually assess and manage risks during each activity
- give staff the authority to stop an activity if they identify new or increased risks that could endanger anyone involved with the activity
- require you to continually monitor natural hazard risks in your area
- have clear criteria to postpone, cancel, or adjust activities (such as moving to a safer location or taking an alternative route), if conditions change and significantly increase risk.

Registered operators

6.1 Workers' role in managing risk during an activity

As the PCBU, you are responsible for managing risks, but workers must follow reasonable instructions and ensure their actions do not harm themselves or others. You should make sure workers understand the operator or provider's safety plan so they know what to do if natural hazards change or become more likely.

All PCBUs

Note: If you are a registered operator, your safety plan should include SOPs and trigger points.

All PCBUs

You should make sure workers have the training, skills, and awareness to:

- quickly identify changes to known hazards, new hazards, or signs a hazard may happen
- decide when to stop an activity
- reduce exposure to risks
- follow the safety plan.

You should give workers the authority to stop or change an activity if they identify new or increased natural hazard risks (note the requirements for registered operators above). This could mean:

- not starting the activity or stopping midway
- waiting until conditions improve or changing the route.

For more information, see section:

- 36(3)(f) of HSWA
- Regulation 9 of GRWM regulations and
- Safety Audit Standard (version 2.0)

Example: A gradually changing natural hazard

A technical adviser previously assessed an abseiling cliff on a coastline and identified a risk of erosion that could cause rockfall. The site was deemed safe for abseiling, but erosion may develop over time.

The site is checked regularly to make sure the cliff remains safe. The PCBU makes sure these checks follow technical advice on how often they should take place, to identify any changes that increase the risk of rockfall and the associated health and safety risks.

The site is also checked just before each abseiling activity. Workers immediately report any concerns to the PCBU, who decides whether to proceed. If the activity goes ahead, workers continue monitoring the site.

Example: A change in the likelihood of a natural hazard

A previous assessment of a cliff identified landslip as a natural hazard that could happen. The likelihood was determined to be low unless certain conditions take place, such as heavy rain, strong winds, or recent seismic activity.

Consequently, the PCBU makes sure they or a suitably experienced technical adviser reassesses the site after an intense storm or earthquake, to check for an increased chance of a landslide happening.

For more information, see General requirements for workplaces and Appendix 5: Worker engagement, participation and representation (Part 3 of HSWA)

Dynamic risk management does not mean accepting greater risks than originally assessed. Make sure none of the actions you take to manage risk from natural hazards:

- weaken existing control measures. For example, a guided caving tour uses a fixed rope for a steep section. Heavy rain raises the water levels, making the rope harder to use. Instead of removing it, guides delay the tour until water levels drop, keeping the original safety measure in place.
- increase previously identified risks. For example, a canoe tour operator checks river conditions daily. After heavy rain, strong currents and debris make the route riskier. Instead of continuing as planned, they shorten the trip to avoid dangerous sections.

7.0 Trigger points to apply control measures

IN THIS SECTION:

Trigger points help workers decide what to do when a natural hazard poses a risk.

7.1 What is a trigger point?

All PCBUs

A trigger point is an event that leads to a specific response. They guide you and your workers on which control measures to use to manage identified natural hazard risks.

You should include clearly defined trigger points and responses in your risk management plan, and train workers to understand what they are, and what to do if they are reached before and during the activity.

Workers should still assess risks in real time (note the requirements for registered operators in Section 6.0). They can use their judgement and professional expertise to apply more effective control measures than standard procedures if they need.

For more information, see Workplace emergency plans

7.2 Set your trigger points

Identify natural hazards and assess the associated risks using the risk management approach in Section 2.1: Risk management approach

You should think about your adventure or outdoor recreation activity, including the risks people are deliberately exposed to, and your operating area, to choose appropriate trigger points and responses. Decide when to use control measures to eliminate or minimise risks from each identified natural hazard.

A trigger point may be based on:

- deliberate exposure to risk
- a measurable or predicted weather or environmental condition, such as wind speed or direction, rainfall, temperature, or river level
- a specific event happening or expected, such as lightning or strong winds
- an index or rating reaching or expected to reach a certain level, such as the fire-danger rating.

Weather-related trigger points can be based on forecast or actual conditions. Keep in mind that actual conditions may differ from the forecast.

7.3 Trigger points set by other PCBUs

All PCBUs

If you share duties with other PCBUs, such as land owners, land managers, or other activity operators or providers, you should check if they have their own trigger points for the area and include these in your plan.

Using the same trigger points as other PCBUs helps with coordinated responses and consistent information for workers and others. For example, the Department of Conservation uses trigger points for managing Tongariro National Park during volcanic activity.

Table 4 shows examples of trigger points for natural hazards.

Note: These examples do not apply to any specific activity or environment. You should decide which trigger points are practical for your operation. If you are a registered operator and are unsure, consult your technical adviser.

NATURAL HAZARD	TRIGGER POINT AND RESPONSE
 **Avalanche**	Before activity: – if the avalanche risk is too high, cancel the activity or take a different route. During activity: – if the avalanche risk increases, use safe travel techniques or change routes.
 **Flooding**	Before activity: – if heavy rain is expected, avoid caves prone to flooding. During activity: – if water levels rise, streams swell, or water discolours – evacuate if safe to do so – until water levels drop to a safe level, caves will remain off-limits.
 **Landslip**	Before activity: – if heavy rain makes a landslip likely, postpone or cancel the activity. During activity: – if heavy rain and signs of a landslip appear – evacuate if safe to do so – assess the risk when it is safe – if you are a registered operator, check with your technical adviser.
 **Rockfall**	Before activity: – if rain or dry periods increase rockfall risk, cancel or postpone the activity. During activity: – if recent rockfall activity is evident – evacuate if safe to do so – assess the risk when it is safe – if you are a registered operator, check with your technical adviser.
 **Storm – high winds**	Before activity: – if high winds are forecast on a large lake, adjust activity plans. During activity: – if winds make the activity unsafe, move to the nearest safe shelter – if returning is unsafe, use a boat to evacuate workers and others.
 **Volcanic activity**	Before activity: – if there is a risk of eruption, cancel or postpone the activity. During activity: – if volcanic activity increases, evacuate the area.

NATURAL HAZARD	TRIGGER POINT AND RESPONSE
 Water surge	Before activity: – if swells are unsafe, postpone the activity. During activity: – if there is a tsunami warning, move to the nearest safe area until the risk is gone.
 Wildfire	Before activity: – if the fire risk is high and the activity could start a fire, cancel or postpone the activity. During activity: – if a fire starts in or near the activity, follow evacuation procedures.

TABLE 4: Natural hazard trigger points examples.

All PCBUs

8.0
Review and improve control measures

IN THIS SECTION:

Regularly review control measures with your workers so they are effective and suitable.

All PCBUs

You should make sure control measures for serious risks are effective, maintained, and:

- fit for purpose
- suitable for the work's nature and duration
- installed, set up, and used correctly.

You should review control measures and trigger points with workers when:

- there is evidence they may not be effectively managing the risk
- a new natural hazard or risk is identified
- new information about a known natural hazard or your operation area shows a higher risk to workers and others
- environmental changes increase the risk to workers and others
- workplace conditions change
- the activity you provide changes
- a key worker's abilities or availability changes
- workers or their health and safety representative request a review.

Note: Under the GRWM Regulations, all PCBUs **must** ensure a control measure is effective and maintained when managing particular risks to health and safety.

Registered operators

You must regularly monitor and check your control measures to make sure they still manage the risk effectively. Do this continuously, not just when you first put them in place. You should get a technical adviser to help with the review process.

For more information about when to use a technical adviser, see Appendix 2: Technical advisers

8.1 When to review and improve control measures

All PCBUs

Under the GRWM Regulations, all PCBUs must review and revise control measures when managing **particular risks** to health and safety. If your control measures are no longer effective or suitable, you should:

- reassess them
- update them or add new ones so they manage risks effectively.

You should put new control measures in place to manage risks and make sure any remaining risk is acceptable.

For more information, see:

- Regulation 7 Duty to maintain effective control measures
- Regulation 8 of GRWM regulations
- Section 4.0 Assess the risks of identified natural hazards and
- Section 5.0 Manage the risks of identified natural hazards

Note: Registered operators must also comply with additional requirements to monitor control measures. See section 4.2 Risk management measures of the SAS.

9.0 Develop and maintain an emergency plan

IN THIS SECTION:

Have an emergency plan to respond quickly and effectively to natural hazards during your activity.

Natural hazards can change and be unpredictable, so things can go wrong even with effective risk assessment and the right control measures. You should work with your team to develop an emergency plan alongside your risk management plan.

For more information, see Workplace emergency plans and Regulation 14 of GRWM Regulations

Note: Registered operators must also comply with the requirements in 5.6 Field communications and 6.1 Emergency preparedness and response plans of the SAS about SOPs, emergency preparedness and response plans.

All PCBUs

9.1 What to include in your emergency plan

Your emergency plan must include an effective response to any emergency (including one caused by a natural hazard during an activity). Your plan must provide procedures to:

- safely evacuate your area
- quickly notify emergency services
- provide first aid treatment and assistance
- ensure clear communication between the person authorised by the PCBU to coordinate the response and everyone else at the workplace.

Your plan must include:

- testing emergency procedures to make sure they work for the activity and environment
- how often testing should occur
- worker training and instructions for emergency procedures.

9.2 Keep your emergency plan up to date

You must maintain your emergency plan so that it remains effective. You should regularly review and update your emergency plan:

- after an incident or emergency
- when tests or reviews highlight issues
- if any person, procedure, or action in the plan changes.

9.3 First aid access

All PCBUs

You must provide adequate first aid equipment for your workplace, and make sure workers have access to a trained first aider. You should also make sure workers and participants have access to people with the right qualifications to treat injuries, including those arising from natural hazards. You can get different first-aid certificates based on your activity's hazards and location:

- consider the types of injuries that could occur, such as cuts, fractures, burns, hypothermia, or dehydration, and the number of people who may need treatment
- make sure appropriate first aid equipment, such as bandages, splints, antiseptics, thermal blankets, and rehydration supplies, is always available during the activity.

Registered operators

You must make sure adequate and appropriate first aid supplies are available at all times during the activity and are maintained. You must also make sure that staff and participants can easily access a staff member with a current first aid qualification, appropriate for the activity's hazards and location.

For more information, see First aid at work

9.4 If a sole guide is incapacitated

All PCBUs

If a sole guide leads an activity:

- the lead guide should tell people participating in the activity what to do in an emergency based on their standard procedures
- under the SAS, registered operators must inform participants before starting the activity on how to call for assistance
- if a person may need to act in an emergency, give them clear instructions before the activity starts and make sure they understand what to do. It may help to provide the person with a reminder, such as a prompt card.

9.5 Key factors to develop emergency plans

Table 5 lists important factors to consider when developing your emergency procedures.

KEY FACTORS	FACTORS TO CONSIDER
Hazard	– the natural hazards in your operating area – potential natural hazards in your area
Participants	– the number of people in the activity – people's fitness and health conditions that may affect their response in an emergency or evacuation order
Workers	– whether workers are trained to follow emergency procedures – the number of workers available to help in an emergency and if they can manage the participants – the number of workers needed to manage an emergency, including those coordinating responses, providing first aid, or communicating for help
Equipment and supplies	– the first aid supplies needed to treat injuries – whether workers have the communication tools to contact emergency services or base, such as an emergency locator beacon or radio – the equipment needed for emergencies and if there is enough for everyone in the group – ensuring all people have enough food and water

KEY FACTORS	FACTORS TO CONSIDER
Operating area	– the area's remoteness and its impact on communication – the area's remoteness and the time needed for outside assistance or evacuation – access difficulties and how natural hazards may affect access – emergency exit routes and access points for outside help – how to manage the situation while waiting for outside assistance – clear criteria for deciding when to stay put, self-evacuate, or seek outside help

TABLE 5: Key factors when developing emergency plans

All PCBUs

10.0 Notify WorkSafe of an event

IN THIS SECTION:

All PCBUs must inform WorkSafe about notifiable events that happen in their operating area.

Adventure and outdoor recreation activity environments are unique and often carry risks from natural hazards. All PCBUs must notify WorkSafe as soon as possible if any of the following notifiable events happen due to work their business is responsible for:

- a death
- a notifiable injury or illness
- a notifiable incident.

All PCBUs

Registered operators must also notify WorkSafe of additional incidents when they occur in connection with an adventure activity, including:

- any unplanned or uncontrolled incident that exposes anyone to a serious risk arising from an immediate or imminent exposure to a natural hazard, that is not routinely encountered during the activity
- any injury or illness that needs, or would usually need, medical treatment within 48 hours.

Registered operators

10.1 Notify WorkSafe of a natural hazard incident

When deciding whether to notify WorkSafe of an incident arising from exposure to a natural hazard, consider the type, severity, and distinguishing features of the natural hazard. Assess if it:

- exposes workers or others to a serious health and safety risk
- is outside what you usually encounter during the adventure activity
- adversely affects the location you provide the activity.

10.2 How to notify WorkSafe

To notify WorkSafe about:

- a workplace death, call 0800 030 040 immediately
- all other notifications, see Notify WorkSafe

For more information, see What events need to be notified?

All PCBUs

11.0
Inform people about serious risks

Inform people about serious risks in activities they take part in, so they can make informed decisions.

Registered operators

A serious risk to health and safety is one that is significant or concerning, such as one that could lead to a notifiable event.

Registered operators must take reasonable steps to inform potential participants in their activity about serious risks, including risks from natural hazards, they may be exposed to. They must communicate these risks as required by the Adventure Activities Regulations and the SAS.

What is reasonable will depend on the activity, the identified natural hazards, and their risks. Registered operators must:

- have procedures to communicate risks to participants
- consider participants' communication needs (for example, language differences, age, and, where possible, literacy levels).

For more information, see Duty to communicate risks associated with adventure activities (Regulation 8A of the Adventure Activities Regulations) and section 3.5 Communication of the SAS.

Note: WorkSafe's policy clarification for regulation 8A details what we expect from registered operators to meet their duty under the Adventure Activities Regulations to communicate risks. See Other PCBUs below.

Other PCBUs

We recommend all other PCBUs use this risk communication model to inform people about serious risks they may be exposed to by taking part in an activity Policy Clarification – How we apply Adventure Activity Regulation 8A

Appendices

IN THIS SECTION:

Appendix 1: Glossary

TERM	DEFINITION
Activity	For: – a registered operator, this is an adventure activity as defined in Regulation 4 of HSWA – outdoor recreation activity providers, this includes an organised recreational pursuit that takes place outdoors, often involving physical challenges, environmental factors, and built-in risks that should be managed for people's safety.
Adventure activity	Means an adventure activity as defined in Regulation 4 of HSWA
Adventure activity operator	Also called an 'operator'. A 'PCBU' who provides an adventure activity to a participant.
Control measure	A way of eliminating or minimising risks to health and safety.
Duty	A legal obligation to act responsibly according to the law.
Dynamic risk management	To assess and manage risks during an activity and as risks change.
Environment	The geographical area, surroundings, and condition of the operating area.
Good practice	The range of actions that are currently accepted within the adventure and outdoor sector as an appropriate and practical means to manage the risk of harm to workers, participants, and visitors. Good practice should also reflect relevant standards recognised within the sector for the safe provision of adventure activities where these exist. This may include: – activity safety guidelines – codes of practice or conduct – other recognised guidelines – accepted professional practices.
GRWM	Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. You can find the full text of the Regulations on the New Zealand Legislation website.
Harm	Illness, injury, or both, and includes physical and mental harm caused by work-related stress.
Hazard	Anything that can cause harm, including mental harm. It could include an object, situation, or a person's behaviour.
HSWA	Health and Safety at Work Act 2015. The key work health and safety legislation in New Zealand. HSWA applies to all work and workplaces unless specifically excluded. You can find the full text of the Act on the New Zealand Legislation website.
Incident	Event that caused or could have caused harm to any person. **Note**: An incident that did not cause harm is also called a 'near miss', 'near hit', 'close call', 'near-accident', or similar. A near-miss is an incident in which no personal injury was sustained, but where, given a slight shift in situation, harm may have happened.
Land manager	A PCBU who manages land that is used as a workplace.
Land owner	A PCBU who owns land that is used as a workplace. This includes land owned: – publicly/by the Crown (for example, Department of Conservation land, Council land, forestry land or school land) – privately (for example, working farms).

TERM	DEFINITION
Natural hazard	For the purposes of this guidance, the definition in Regulation 19A of the Adventure Activities Regulations has been adopted. Natural hazard means: – any atmospheric-, land, or water-related occurrence (including volcanic activity, landslip, avalanche, rockfall, ice fall, storm, or flooding) the action of which adversely affects a location where an adventure activity is provided. Earthquakes are excluded from the scope of this guidance because they can happen on such a large scale that participating in an adventure activity would not significantly increase exposure to the risk due to ground shaking. Natural hazard risks that can arise because of earthquakes are included, such as tsunamis and rockfall.
Operation	The business and organised action, process, or manner of providing an activity or ancillary service.
Operator	See Adventure activity operator above.
Others	Persons at a workplace who are not workers. This includes participants, spectators, and casual volunteers.
Outdoor recreation activity provider	Also called a 'provider'. Includes a 'PCBU' that would normally be excluded from the definition of adventure activity under Regulation 4 of HSWA such as: – sports or recreation clubs – associations representing sports or recreation clubs – registered schools or tertiary education providers.
Participant	Person who participates in an adventure activity and is not a worker.
PCBU	PCBU (person conducting a business or undertaking) has the meaning defined in section 17 of HSWA **Note**: A PCBU includes but is not limited to a sole trader, company, partnership, trading trust, incorporated society, and charitable trust.
Potential participant	Someone who: – has not made a commitment to the activity – has not yet started the activity.
Provider	See *Outdoor recreation activity provider* above.
Reasonably practicable	What is, or was, reasonably able to be done to ensure health and safety. See Appendix 4: So far as is reasonably practicable section 22 of HSWA
Registered operator	An adventure activity operator who is registered in accordance with subpart 1 of Part 2, of the Health and Safety at Work (Adventure Activities) regulations 2016
Remaining risk	The risk that remains if elimination of a hazard is not reasonably practicable, or control measures to minimise a risk have been put in place but do not fully minimise the risk.
Risk	Risks to health and safety arise from people being exposed to hazards (anything that can cause harm). Risk is determined by combining the likelihood of a hazard happening and the harm that could happen if a person was exposed to the hazard.
Safety management system	Documented management system for directing and controlling an operation regarding safety.
Serious risk	Means or includes a chance of a notifiable event, as the context requires. **Note**: 'serious risk' is defined in the SMS as 'a chance of a notifiable event', but as there is no relevant legislative definition of 'serious risk', the meaning may be broader than this definition when used in other contexts.
SOP	Standard operating procedure. A set of detailed, written information and instructions or plans for performing a particular activity or task (including ancillary services). As defined in Section 2.0 Definitions of the SAS

TERM	DEFINITION
Technical adviser	A person or group of people that can help you with various technical tasks. See Appendix 2: Technical advisers
Trigger point	A hazard, situation, or event that triggers a pre-determined response to apply control measures to manage the risks.
Worker	A person who carries out work in any capacity for a PCBU. Workers can be at any level (for example, managers are workers too). PCBU is also a worker if the PCBU is an individual who carries out work in that business or undertaking. See Appendix 3: Health and Safety at Work Act 2015 duties
Workplace	Any place where a worker goes or is likely to be while at work, or where work is being carried out or is customarily carried out. Most duties under HSWA relate to the conduct of work. However, some duties are linked to workplaces.

Appendix 2: Technical advisers

A technical adviser is a person or group that an adventure activity operator may contract or work closely with. A technical adviser can also be an internal member of the adventure activity or business unit, or they may work for the operator. They have professional credentials to help operators with technical tasks.

A registered operator must use a technical adviser to identify and assess hazards and risks. We recommend they also use one when reviewing their adventure activities and safety management systems.

For more information about these requirements and recommendations in the *Safety management system requirements for adventure activity operators, v.2.0* (SMS), see Documents and resources and sections 4.0 Risk and hazard management and 9.2 Internal review of the SMS of the SAS.

What is a technical task?

Technical tasks include advising on and reviewing policies, procedures, and practices related to an adventure activity. They also include providing advice on natural hazards.

Technical tasks involving natural hazards include advice on:

- whether a natural hazard is present or could happen in your operating area
- assessing serious risks from an identified natural hazard
- ways to manage serious risks of an identified natural hazard.

What technical tasks can a technical adviser advise on?

A technical adviser should only advise on tasks they have professional credentials for.

A good adviser knows their limits. If they lack the knowledge, skills, or experience to advise on a natural hazard in your operating area, they should tell you so you can find someone suitable.

What are professional credentials?

A technical adviser should have professional credentials relevant to the technical task, such as:

- a high-level, nationally or internationally recognised qualification
- extensive knowledge, skills, and experience.

Two or more people may combine their credentials to meet the requirements. The PCBU should decide whether they need specialist advice or if advice from an activity technical expert is sufficient.

Check if a technical adviser is qualified to advise you

- Research the adviser: Are they right for the task?
- Talk to them before hiring: Are they right for your activity or identified natural hazard?
- Check their qualifications: Are they relevant and up to date?
- Review their previous work: Is it relevant to your technical tasks?
- Ask other operators: Were they satisfied with the adviser?

Get a written report

A technical adviser should give you a written report that outlines their qualifications, expertise, and the advice they provided. The report should include:

- their experience in providing similar advice
- their advice for your operation, including concerns and recommendations
- what they cannot advise on, such as if they cannot assess a specific natural hazard
- any standards they assessed your operation against.

The report forms part of your safety management system and helps you apply the right control measures for identified risks.

Use advice provided to similar technical tasks

You can apply advice that another operator received from a technical adviser about a technical task if:

- the technical task is the same
- you operate in the same area
- your adventure activity is substantially similar
- you are certain the advice applies and the technical adviser confirms it
- you have a copy of the adviser's written report that includes the advice
- you have permission from the operator who received the advice.

What qualifications, knowledge, skills, and experience should a technical adviser have?

 **Qualifications**	A technical adviser with a qualification should have a relevant, up-to-date, high-level qualification that is nationally or internationally recognised for the technical task. Examples of high-level qualifications include: – NZOIA Level 2 – NZ diploma in outdoor recreation level 6+ – diploma – a dive agency instructor certifier – grade 4/5 raft guide. A technical adviser providing specialist natural hazard advice should have a relevant postgraduate qualification. The adviser should also show current competence, such as recent employment in a relevant role. **Note**: An international qualification must be equal to, or higher than, New Zealand qualifications.
 **Knowledge**	A technical adviser should have extensive knowledge of: – adventure activities like yours – the type of environment you operate in – major incidents that have happened in similar activities worldwide – specific natural hazards they advise on – how safety management systems support your operation – relevant worker competency requirements and assessments (if advising on these) – relevant client management strategies – relevant good practice for emergency preparations and incident reviews – equipment and techniques typically used.

 **Skills**	A technical adviser should have extensive skills to: – assess risks from specific, identified natural hazards – provide evidence-based advice on eliminating or minimising those risks – assess the safe and correct use of equipment.
 **Experience**	Depending on how technical the activity is, the technical adviser should have at least five years of experience working in your industry or advising on a specific natural hazard. Their experience should include leading or contributing to formal Safety Management Systems across different operations. A technical adviser should provide high-quality written reports and evidence of advice given to past clients for the technical task. They may also give professional references you can contact to confirm client satisfaction.

Appendix 3: Health and Safety at Work Act duties

The Health and Safety at Work Act 2015 (HSWA) is New Zealand's key work health and safety law.

All work and workplaces are covered by HSWA unless they have been specifically excluded. For example, HSWA does not apply to the armed forces in certain situations.

HSWA sets out the work health and safety duties that duty holders must comply with.

There are four types of duty holder under HSWA:

- a person conducting a business or understanding (PCBU)
- an officer
- a worker
- an 'other person' at the workplace.

Most duties under HSWA relate to **how** work is carried out. However some duties are linked to **where** work is carried out: the workplace.

A **workplace** is a place where work is being carried out or usually carried out for a business or undertaking. It includes any place where a worker goes or is likely to be while at work section 20 of HSWA

DUTY HOLDER	WHO THEY ARE?	EXAMPLES	WHAT ARE THEIR DUTIES?	FOR MORE INFORMATION
Person Conducting a Business or Undertaking (PCBU)	A person conducting a business or undertaking (PCBU) may be an individual person or an organisation	– a business – a self-employed person – partners in a partnership – a government agency – a local council – a school or university.	A PCBU has many duties. Key duties are summarised below. **Primary duty of care** section 36 of HSWA A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers, and that other persons are not put at risk by its work.	Appendix 4 of this guidance for an explanation of 'so far as is reasonably practicable'
	The following **are not** PCBUs: – officers – workers – other persons at a workplace – volunteer associations that do not have employees – home occupiers (such as home owners or tenants) who pay someone to do work around the home section 17 of HSWA		**Managing risks** section 30 of HSWA Risks to health and safety arise from people being exposed to hazards (anything that can cause harm). A PCBU must manage work health and safety risks. – A PCBU must first try to **eliminate** a risk so far as is reasonably practicable. This can be done by removing the source of harm – for example, removing faulty equipment or a trip hazard. – If it is not reasonably practicable to eliminate the risk, it must be **minimised** so far as is reasonably practicable.	Section 5 of this guidance For registered operators: Section 4 and 5.3 of the Safety management systems safety audit standard
			Overlapping duties: working with other PCBUs section 34 of HSWA A PCBU with overlapping duties must, so far as is reasonably practicable, consult, cooperate and coordinate activities with other PCBUs they share duties with.	Section 2.2 of this guidance

DUTY HOLDER	WHO THEY ARE?	EXAMPLES	WHAT ARE THEIR DUTIES?	FOR MORE INFORMATION
			Involving workers: worker engagement, participation and representation Part 3 of HSWA A PCBU must, so far as is reasonably practicable, engage with their workers (or their workers' representatives) about health and safety matters that will directly affect the workers. A PCBU must have worker participation practices that give their workers reasonable opportunities to participate in improving health and safety on an ongoing basis.	Appendix 5 of this guidance Introduction to the Health and Safety at Work Act 2015
Upstream PCBU	A PCBU in the supply chain	– a designer – a manufacturer – a supplier – an importer – an installer, constructor, or commissioner.	**Upstream PCBU** sections 39–43 of HSWA An upstream PCBU must ensure, so far as is reasonably practicable, that the work they do or the things they provide to other workplaces do not create health and safety risks.	Introduction to the Health and Safety at Work Act 2015
Officer	A specified person or a person who exercises significant influence over the management of the business or undertaking section 18 of HSWA	– a company director – a partner or general partner – a chief executive.	**Officer** section 44 of HSWA An officer must exercise due diligence that includes taking reasonable steps to ensure that the PCBU meets their health and safety duties.	Introduction to the Health and Safety at Work Act 2015
Worker	An individual who carries out work for a PCBU section 19 of HSWA	– an employee – a contractor or sub-contractor – an employee of a contractor or sub-contractor – an employee of a labour hire company – an outworker (including homeworker) – an apprentice or trainee – a person gaining work experience or on work trials – a volunteer worker.	**Worker** section 45 of HSWA A worker must take reasonable care of their own health and safety, and take reasonable care that they do not harm others at work. A worker must cooperate with reasonable policies and procedures the PCBU has in place that the worker has been told about. A worker must comply, as far as they are reasonably able, with any reasonable instruction given by the PCBU so the PCBU can meet their legal duties.	Introduction to the Health and Safety at Work Act 2015
Other person at the workplace	An individual present at a workplace (not a worker)	– a workplace visitor – a casual volunteer (not a volunteer worker) – a customer.	**Other person at the workplace** section 46 of HSWA An 'other person' has a duty to take reasonable care of their own health and safety, and not adversely affect the health and safety of anyone else. They must comply with reasonable instructions relating to health and safety at the workplace.	Introduction to the Health and Safety at Work Act 2015

Appendix 4: So far as is reasonably practicable

section 22 of HSWA

Certain PCBU duties (sections 36–43 duties including the primary duty of care) must be carried out 'so far as is reasonably practicable'.

What to consider when deciding what is 'reasonably practicable'

Just because something is possible to do, does not mean it is reasonably practicable in the circumstances.

Consider:

- What possible actions can be taken to ensure health and safety?
- Of these possible actions, at a particular time, what is reasonable to do?

Think about the following questions.

WHAT IS KNOWN ABOUT THE RISK?

- How likely is the risk to occur?
- How severe is the illness or injury that might occur if something goes wrong?
- What is known, or should reasonably be known, about the risk?

WHAT IS KNOWN ABOUT POSSIBLE CONTROL MEASURES?

- What is known, or should reasonably be known, about the ways (control measures) to eliminate or minimise the risk?
- What control measures are available?
- How appropriate (suitable) are the control measures to manage the risk?
- What are the costs of these control measures?
- Are the costs grossly disproportionate to the risk? Cost must only be used as a reason to not do something when that cost is grossly out of proportion to the risk.

While PCBUs should check if there are widely used control measures for that risk (such as industry standards), they should always keep their specific circumstances in mind. A common industry practice might not be the most effective or appropriate control measure to use.

If PCBUs are not sure what control measures are appropriate, WorkSafe recommends getting advice from a suitably qualified and experienced health and safety professional.

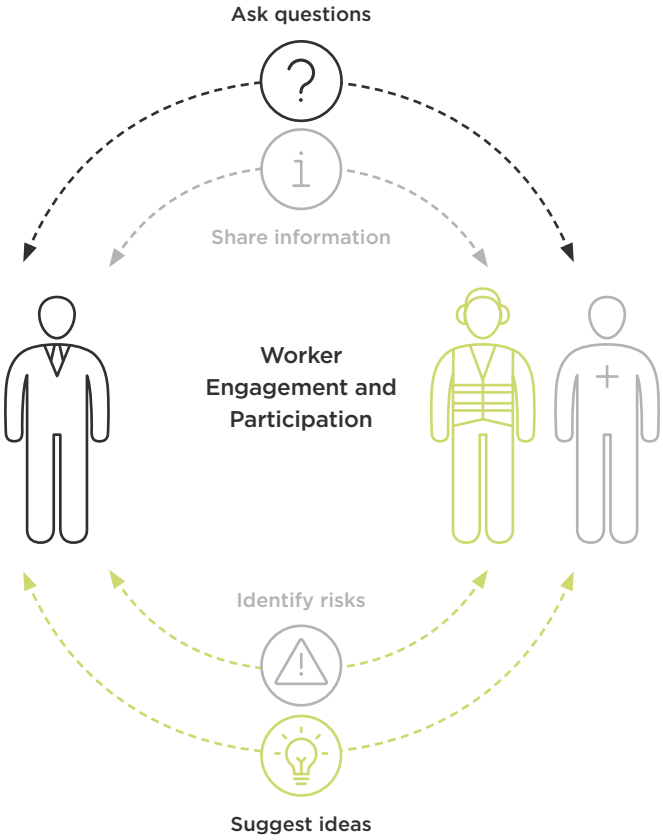
For more information, see our guidance Reasonably practicable

Appendix 5: Worker engagement, participation and representation Part 3 of HSWA

Engage with workers and enable their participation

A PCBU has two main duties related to worker engagement and participation:

- to engage with workers on health and safety matters that affect or are likely to affect workers, so far as is reasonably practicable, and
- to have practices that give workers reasonable opportunities to participate effectively in the ongoing improvement of work health and safety.



A PCBU can engage with workers by:

- sharing information about health and safety matters so that workers are well-informed, know what is going on and can contribute to decision-making
- giving workers reasonable opportunities to have a say about health and safety matters
- listening to and considering what workers have to say at each step of the risk management process
- considering workers' views when health and safety decisions are being made
- updating workers about what decisions have been made.

A PCBU must engage with workers during specified times, including when identifying hazards and assessing risks.

A PCBU must have clear, effective, and ongoing ways for workers to suggest improvements or raise concerns.

Worker representation

Workers can be represented by a Health and Safety Representative (HSR), a union representing workers, or a person that workers authorise to represent them (for example, a community or church leader, or another trusted member of the community).

HSRs and Health and Safety Committees (HSCs) are two well-established methods of participation and representation. If workers are represented by an HSR, worker engagement must also involve that representative.

For more information

WORKSAFE GUIDANCE

Good practice guidelines

Worker engagement, participation and representation

Interpretive guidelines

Worker representation through Health and Safety Representatives and Health and Safety Committees

Pamphlets

Worker representation

Health and Safety Committees

Health and Safety Representatives

Appendix 6: The Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 duties

The Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 (GRWM Regulations) sit under HSWA and prescribe certain requirements to be met including the requirement to:

DUTY HOLDER	WHAT ARE THEIR DUTIES?	FOR MORE INFORMATION
Person conducting a business or undertaking (PCBU)	A PCBU has many duties. Key duties are summarised below. **Duty to provide information, supervision, training and instruction** (Regulation 9 of GRWM) A PCBU must ensure, so far as is reasonably practicable, every worker: – has adequate knowledge and experience of similar places, and work, plant, or substances of that kind, to ensure the worker carrying out the work is not likely to adversely affect the health and safety or cause harm to themselves or others, or – is adequately supervised by a person who has that knowledge and experience; and – is adequately trained in the safe use of equipment they are or may be required to use or handle, and any PPE they may be required to wear or use.	General risk and workplace management – part 1
	Duty to provide first aid (Regulation 13 GRWM) A PCBU must ensure: – adequate first aid equipment is supplied, and each worker has access to it and facilities for the administration of first aid – adequate number of workers are trained, or they have access to an adequate number of other persons who have been trained to administer first aid.	General risk and workplace management – part 1
	Duty to prepare, maintain, and implement emergency plan (Regulation 14 GRWM Regulations) A PCBU must ensure an emergency plan is prepared for the workplace.	General risk and workplace management – part 1
	Duty to provide personal protective equipment (Regulation 15 GRWM Regulations) If PPE is to be used, a PCBU must provide it unless it is provided by another PCBU, or the worker chooses to provide their own suitable PPE.	General risk and workplace management – part 1
	Duty to manage particular risks to health and safety (Regulations 5 to 8, and 21 to 31 GRWM Regulations) A specified risk management approach must be used, or certain requirements met when dealing with certain kinds of work or work situations, including: – remote or isolated work (Regulation 21) – falling objects (Regulation 25)	Approach for dealing with certain kinds of work or work situations

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

WorkSafe regularly reviews and revises guidance to ensure that it is up-to-date. If you are reading a printed copy of this guidance, please check worksafe.govt.nz to confirm that your copy is the current version.

ISBN 978-1-99-105743-3 (online)

Published: March 2025

PO Box 165, Wellington 6140, New Zealand

worksafe.govt.nz

WSNZ_4744_MAR 2025

ISBN 978-1-99-105743-3 (online)

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