Risk Management

Managing risk is the key to your safety management system. You should have a systematic process that is supported by a strong culture and dynamic on-the-job risk awareness.

Risk v Hazard

These terms are often confused, and are sometimes used to mean the same thing. In the Safety Management System Requirements, risk means 'a chance of harm (unless the context requires otherwise), eg the risk of spinal injury; while hazard is defined as 'anything that 'can cause harm'. Under the Health and Safety at Work Act, this includes a person's behaviour.

A **serious risk** means a chance of a notifiable event.

A **serious hazard** is a hazard that does or could cause a notifiable event.

The risk management process comprises:

1. Identifying the hazards.
2. Assessing the risk.
3. Developing risk controls.
4. Ongoing monitoring and review.

Identifying the hazards

What could go wrong?

Identify the potential causes of harm (hazards) and the risks that could result from them.

Consider the:

- Activity itself – what risks does it generate, eg harm from falling or getting lost?
- Physical environment – venue, physical features, remoteness, and access.
- Environment related effects – natural hazards, eg weather, tide, avalanche; traffic.
- People involved – number, experience, competence, behaviour, fitness, health/medical considerations, supervision needs. Include participants, staff, contractors, volunteers, and any visitors/public in the area.
- Equipment that you'll be using – is it fit for purpose? potential of incorrect use or failure?

Note! You must identify the 'reasonably foreseeable' hazards and risks.

Assessing the risk

Which risks should we focus on?

This involves evaluating the likelihood and potential severity of the risks that you've identified.

Risk matrix's are commonly used to calculate a raw risk rating, which can help you to identify and focus on managing the most serious risks.

Developing risk controls

How can we eliminate or reduce the risks?

Focusing on the most important (highest rating) risks, identify what control/s you can put in place for each one. You must follow the hierarchy of control to reduce each risk to an acceptable level. This means that where practicable you should firstly look to:

1. Eliminate hazards/risks by completely removing any unnecessary serious risk, eg portaging a particularly dangerous rapid.

And if you can't do that, then minimise the risk by:

2. Substitution – using a safer alternative, eg going a less risky way.
3. Isolation – separating people at risk from the hazard, eg with a barrier.
4. Using an engineered control – adding a physical safety feature, eg an assisted belay device
5. Implementing an administrative control – adding a process, eg operating procedure, training, or supervision.
6. Using personal protective equipment (PPE), eg helmet, buoyancy aid. This doesn't reduce the likelihood of the risk, but it may reduce the effect of the risk.

Often a combination of controls is used to minimise risk, eg using a no-go-zone, competent staff, close supervision, clear procedures, safety briefings, and safety equipment.

You should:

- Determine what good practice methods are for the management of each risk .
- Indicate who is responsible for the implementation of each control.
- Reassess the rating for the residual risk (after the controls have been implemented) to check whether it's at an acceptable level.

Ongoing monitoring and review

Ensure that the risks and controls are communicated to and understood by everyone involved. SOP's provide a useful tool for communicating the serious risks and relevant controls for each activity.

Continue to check that your risk management methods are:

- Appropriate – by keeping up-to-date with sector good practice, and scheduling regular technical advisor reviews.
- Being used by staff – through monitoring them in the field

Empower your staff to continually identify, assess and manage risk on the go.

Throughout the risk management process

You should:

- Use and document a systematic process (form or checklist).
- Walk through every part of your operation, but focus on what could cause serious harm.
- Involve as many suitable knowledgeable people as practical (including staff, technical advisors, other operators, land owners).
- Ensure that staff remain aware of, and constantly look for, changes to hazards and risk levels.

Good practice

Good practice is the range of risk management actions that are currently accepted within the relevant adventure activity sector.

To meet your legal responsibilities, you must be aware of and operate at good practice standard (or better). Reliable good practice information can be found in relevant Activity Safety Guidelines, other guidance documentation, or by consulting a recognised Technical Advisor.

Communication

Everyone involved must be clear on their risk management responsibilities, so communication is key.

In particular, you should have effective methods for:

- Passing on information about risks that have changed.
- Enabling staff to contribute to risk management processes.
- Ensuring that staff understand that they must stop an activity if they feel it is unsafe.

Ways to do this include staff meetings, safety updates – via notices, emails, chat messaging whiteboards and prompts in pre-activity briefing notes.

Complacency is our biggest fear – when everything is going well, take a look over your shoulder.

Risk disclosure

The risks involved in an activity, including any changes, must be communicated to everyone involved.

Participants must be informed of the activity hazards and any associated information, before the activity is booked, as well as before and during the activity.

See the Risk Disclosure Template.

Risk rating

There is no prescribed method to determine the seriousness of a risk. However, risk matrixes encourage you to consider both the likelihood of harm occurring and the potential consequence / severity of that harm to determine which risks need to be managed most carefully.

Start by considering the inherent (raw) risk of the task activity eg before any controls have been applied.

For example:

Likelihood Levels	**Description**
Almost Certain	Expected to occur at least once during the task/activity.
Likely	Could occur during the task/activity.
Possible	Conceivably could occur, but only expected infrequently.
Unlikely	Could happen, although only in unusual circumstances.
Rare	Conceivably could happen but in exceptional circumstances.

Severity Level	**Description**
Insignificant	No or very minor injury or illness that requires onsite first aid. Temporary stress or embarrassment. Minor or no damage to facilities or equipment. Little or no environmental, financial, reputational or operational impact.
Minor	Injury or illness requiring attention by medical professional, eg medic, GP or 24-hour clinic. Stressed beyond comfort level. Wants to leave activity. Isolated and quickly repaired damage to facilities or equipment. Some environmental, financial, reputational, or operational impact.
Moderate	Injury or illness that requires immediate medical treatment or hospitalisation (with no permanent disability). Very distressed. Requires onsite counselling or support. Doesn't want to participate in activities. Damage to facilities or equipment resulting in temporary inability
Major	Serious injury or illness to one or more people, resulting in hospitalisation and possible permanent disability. Therapy or counselling by a professional may be required. Sustained or extensive damage to facilities or equipment. Extensive environmental, financial, reputational, or operational impact.
Catastrophic	One or more fatalities. Post-traumatic stress disorder. Long-term counselling / therapy is likely to be required. Loss of facilities or equipment. Significant and widespread environmental, financial, reputational, or operational impact.

Resulting in a matrix:

Consequence of injury/ harm Likelihood of injury/harm	**Insignificant** Minor injury, onsite 1st aid	**Minor** Injury requiring medical attention ie/ Dr or 24hr clinic	**Moderate** Immediate medical treatment ie/ ambulance / ED	**Major** Serious injury / hospitalization / permanent disability	**Catastrophic** 1 or more fatalities
Almost certain	Medium	High	Extreme	Extreme	Extreme
Likely	Low	Medium	High	Extreme	Extreme
Possible	Low	Medium	High	High	Extreme
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	High

Depending on the identified risk level, the following course of action must be followed:

Inherent Risk Level		Action Required
Low	Little chance of harm/damage	Accept - continue, manage risk & monitor through regular processes.
Medium	Some chance of an significant incident	Accept – but apply controls to minimise risk as far as reasonably practicable.
High	Likely chance of a significant incident	Modify - apply controls to minimise risk as far as reasonably practicable. Ensure people involved understand and accept residual risk. Management approval required before you continue.
Extreme	High chance of a serious incident resulting in life-changing harm	Reject – Intolerable. Stop, find an alternative!

Note!

Assessing risk isn't an absolute science. Consider:

- Multiple sources of information will help develop a best estimate.
- The people on the ground often understand what the risks are.
- It's best considered by a team approach to achieve consensus.