GOOD PRACTICE GUIDELINES

White water rafting

GUIDANCE FOR COMMERCIAL RAFTING OPERATORS

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New Zealand Government

WORKSAFE
Mahi Haumaru Aotearoa

These guidelines offer advice on keeping workers and participants safe while white water rafting.

ACKNOWLEDGEMENTS

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White water rafting

KEY POINTS

- White water rafting is an adventure activity which involves a reasonably high level of inherent risk.
- The river environment is continually changing.
- Your guides must be properly licenced and trained.
- Your rafts and equipment must be to industry standard and well maintained.
- Your passengers should be well informed and properly equipped.

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RAFTING REGULATION IN NEW ZEALAND – FROM THEN TO NOW

White water rafting in New Zealand has roots going back to the 1950s when surplus air force rubber dinghies were used to survey rivers unsuitable for canoes.

In the 1970s, commercial operators began running rafting trips for tourists in Queenstown and the central North Island.

Following a rafting accident on the Shotover River where a tourist was killed, an association was set up to monitor, and later, set industry standards for rafting. This was succeeded in 1996 by the New Zealand Rafting Association (NZRA), later to become the New Zealand Rivers Association.

The NZRA developed a code of conduct. This was implemented as Maritime Rule Part 80 under the Maritime Transport Act 1994, and then rewritten as Maritime Rule Part 81

This Rule was accepted by the industry as world-best practice.

However, from 1 October 2020, commercial rafting operations operating under Part 81 will move to operating under the scope of the Health and Safety at Work (Adventure Activities) Regulations 2016 and Rule 81 will be revoked.

What does the move from Maritime New Zealand to WorkSafe New Zealand mean for rafting operators?

If you're a rafting operator who is certified under Maritime Rule Part 81, there are only a few changes that you will need to make.

Things that will change

- Instead of being certified under Maritime Rule Part 81 you will now need to be registered as an Adventure Activity Operator (AAO) under the Health and Safety at Work (Adventure Activities) Regulations 2016. For information on the steps to become a registered Adventure Activity Operator, see WorkSafe's website: worksafe.govt.nz
- You will need to pass a recognised safety audit. To successfully pass that audit you will need to have a documented Safety Management System (SMS) that details how you will manage safety in your operation and you will need to comply with the Safety Audit Standard for Adventure Activities March 2017 (SAS).
- An SMS includes all the elements of the previous Maritime Rule Part 81 'Safe Operational Plan' so you should be able to transfer that information without the need to substantially rewrite it. You may need to add some information. (See Appendix 1 for a checklist of information needed in an SMS).

Things that will not change

- Standards will not be lowered under the Health and Safety at Work Act (HSWA) and the Adventure Activity Regulations.
- The New Zealand Rivers Association (NZRA) continues to be recognised by WorkSafe as the industry's leadership body and technical lead.
- Guides still need to hold a national raft guide award and meet other relevant requirements.
- The raft guide award continues to be dependent on the grade of rapids being rafted.
- Commercial rafting operations will still only be permitted on grade 1–5 river sections.

YOU HAVE RESPONSIBILITIES UNDER THE HEALTH AND SAFETY AT WORK ACT 2015 (HSWA)

If you are a person conducting a business or undertaking (PCBU) under HSWA, you must ensure, so far as is reasonably practicable, that your workers and other people are not put at risk by the work carried out as part of the business or undertaking.

As a rafting operator your responsibilities include making sure:

- your guides are properly certified and trained
- all rafts and equipment are safe and well maintained
- you provide the right safety gear
- you provide your workers with good information, training, instruction and supervision
- your customers are adequately informed, properly equipped and briefed before any raft trip, and
- you continually monitor, assess and manage risks.

Key things to be aware of

- Rafting is an adventure activity which has a reasonably high level of inherent risk.
- You must always try to eliminate risks to health and safety so far as is reasonably practicable. If it is not reasonably practicable to eliminate a particular risk, then you must minimise it and then manage the remaining risk through additional control measures.
- While personal protective equipment (PPE), such as life jackets, is compulsory for rafting, it is not enough to rely on this alone to manage the risks to workers and customers.
- Engage with your workers about identifying health and safety risks and finding solutions. They may have perspectives and solutions that you might not have considered.

What is 'reasonably practicable'?

You will see the phrase, 'so far as is reasonably practicable' in this guidance. 'Reasonably practicable' has the meaning defined in section 22 of HSWA

Reasonably practicable, in relation to health and safety duties, means that which is reasonably able to be done, taking into account and weighing up all relevant matters.

Relevant matters include:

a. the degree of harm that might result from the hazard or risk; and
b. the likelihood of the hazard or the risk concerned occurring; and
c. what the person concerned knows, or ought reasonably to know, about:
    i. the hazard or risk; and
    ii. ways of eliminating or minimising the risk; and
d. the availability and suitability of ways to eliminate or minimise the risk; and
e. after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

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1.0 Introduction

IN THIS SECTION:

1.1 What does this guidance cover?

White water rafting is a popular adventure activity in New Zealand that draws people from around the world.

This guidance is for persons conducting a business or undertaking (PCBUs) involved in rafting operations.

The guidance provides information on:

- keeping workers, participants and others safe when carrying out rafting and associated activities
- how to identify and manage risks in rafting
- industry good practice, and
- WorkSafe's expectations about the control measures used to manage risks.

1.2 The use of 'must' and 'should'

In these guidelines you will see the words 'must' and 'should'.

They are used very deliberately.

Where you see the word 'must' it means that it is a legal requirement. You have to comply.

Where you see the word 'should' it means that it is a recommended practice or approach but it is not mandatory.

The use of 'should' allows for approaches that are different than the recommended good practice, that may in the future be accepted as good practice. It does not allow for approaches that are less robust or provide a lesser level of safety.

2.0
Risk management

IN THIS SECTION:

For many people taking part in rafting the appeal, like all adventure activities, is the excitement that comes with the inherent risk.

This is the challenge for rafting operators; managing and controlling that risk while keeping the element or perception of risk that provides the excitement for the customers.

2.1 Work out what could go wrong and make sure it doesn't

Risk management is something that we all do, all the time, in everyday life.

Every day we face situations, for example, crossing a busy road, where we automatically carry out risk management. We work out:

- what could go wrong (we might get hit by a car)
- what's the likelihood of it happening (there are lots of cars and they're travelling close together and fast) and
- what the results might be (we're likely to die).

We then decide what, if anything, we will do to prevent it happening (we don't cross until the road is clear).

Under the Health and Safety at Work Act 2015 (HSWA) risks to health and safety must be eliminated so far as is reasonably practicable.

Eliminating the risk by getting rid of the source of harm is always the most effective option.

If elimination is not reasonably practicable, then you must minimise the risk so far as is reasonably practicable.

2.2 Managing risks to health and safety is something that every PCBU must do

- Risk management is a continuous process that is required during every stage of a business' life.
- It includes thinking about things that could go wrong – that could harm you, your workers or your customers and others.
- It includes identifying the potential harms, and the likelihood that they might occur.
- It includes looking at how you are going to manage each risk. Can you eliminate it (which you should always try to do first) or, if you can't, how do you minimise it?

HOW TO IDENTIFY RISKS AND HAZARDS

The first step is to consider all the things in your work and workplace that could cause injury or harm. These could be physical objects, foreseeable actions or particular situations; or less tangible things such as guide fatigue, weather events, and 'wild-cards' like unexpected customer actions.

There are a number of ways that you can do this.

- Talk with your workers. Get them to think about what they do and what hazards they see.
- Follow a worker through a task. Look for where things might go wrong.
- Think about the step-by-step process of a particular activity.
- Walk around the workplace. Look for hazards. Think about what could go wrong and how you might prevent that.
- Talk with other raft operators or the industry body about any incidents, accidents or near misses that you could learn from.
- Search online for any incidents that have happened internationally and show what could happen in a similar situation for your business.
- Ask yourself, 'What could go wrong?'

EXAMPLES OF THINGS THAT COULD GO WRONG

These are examples of things that may go wrong on a raft trip.
They are examples only.

- A road accident occurs while travelling to or from the raft trip.
- A participant is injured lifting rafts on or off trailers or into the river.
- The river reaches a dangerous level through flooding, spate or drought before the raft trip.
- The river reaches a dangerous level during the trip.
- A participant falls from the raft, into a dangerous area.
- A participant is hit by a paddle.
- A participant's fatigue results in an incident or injury.
- A participant is swept into a strainer.
- A critical incident occurs somewhere your response is hampered by location (for example, there are no landing zones on a stretch of river to support a rescue/evacuation).
- A guide turns up for work in an impaired state.
- A participant is affected by hypothermia.

Assessing risks and hazards

Once you've identified the risks and hazards, you need assess how serious they are. Assessing risks involves thinking about three things:

- How likely is the risk? (Is it reasonably foreseeable that it will eventually happen if the task/activity is repeated hundreds or thousands of times?)
- What are the consequences (harm) that would result? How serious is the harm and what is the worst-case scenario?
- How many people are likely to be exposed to the risk? Do their skill or experience levels influence the likelihood of the harm occurring?

For example, the likelihood of someone falling from a raft into the river is high. The potential consequences of the harm could be severe – in the worst case, death. Every customer is exposed to that risk. You could say that this was high risk/high consequence, so you would give priority to managing it.

By contrast, the likelihood of someone dropping their paddle is also quite high, and there is the potential for that to happen to any paddler. However, the potential harm is relatively low.

All risks need to be assessed. Just because a risk has lower likelihood of occurring or lower potential for harm does not mean that it can be ignored.

Eliminating and minimising risks

You must eliminate risks so far as is reasonably practicable. If you can't eliminate the risk, you must minimise it so far as is reasonably practicable.

There is a hierarchy of controls that operate from the highest level of protection and reliability to the lowest. The highest level of protection is elimination.

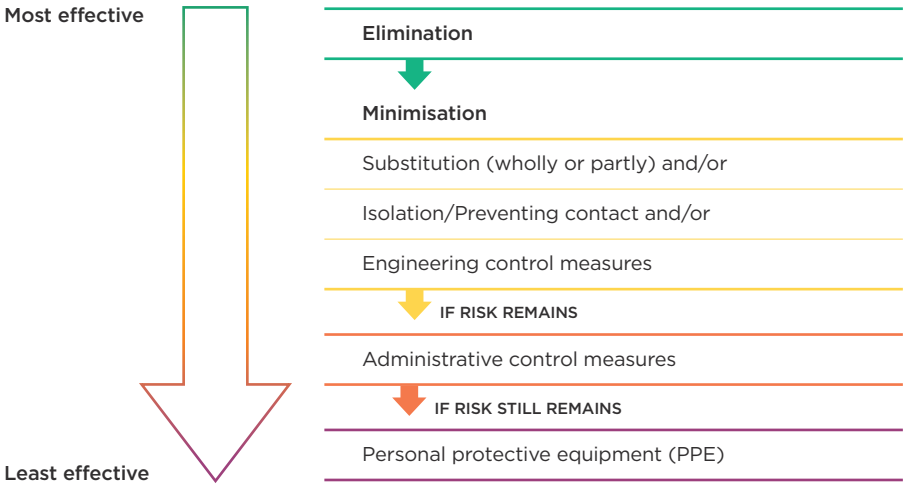

FIGURE 1:
Hierarchy of controls

ELIMINATION

Eliminating a risk is the most effective control measure. You must always eliminate the risk if it is reasonably practicable to do so.

An example might be where a tree has come down into the main channel in a river used for rafting. This creates a specific risk of drowning in that strainer. By removing that tree from the river, that specific hazard and risk is eliminated. The background risk of other possible strainers remains, to be minimised and managed using the strategies in the following sections.

Eliminating the risk is always the preferred option but if it is not reasonably practicable then you must look for ways to minimise the risk.

MINIMISATION

There are a number of control measures that you can use, individually or in combination, to minimise risk. They include (in order of effectiveness):

- **Substitution**: Is there an alternative product or work practice that reduces the risk? For example, Grade 6 rapids involve unacceptable levels of risk: Grade 4/5 trips are substituted in their place for customers who are seeking to experience the highest available river grade.
- **Isolation**: Isolation prevents contact with or exposure to the hazard. For example, if there is a Grade 4/5 section of rapids on a Grade 3 river, you might choose to portage the rafts around that section to reduce the risk.
- **Engineering controls**: This is where you use physical control measures such as mechanical devices or processes to reduce risk. For example, handrails protecting a steep drop at a river access point would be considered engineering control measures.

- **Administrative controls**: This is where you might develop detailed work processes or policies, or use things like warning signs to minimise the risk. Standard Operating Procedures (SOPs) are an administrative control. They do not eliminate or minimise risk but once risks have been eliminated or minimised as far as is reasonably practicable, they can be used to manage the remaining risk.
- **Personal protective equipment (PPE)**: PPE that is to be used to minimise risks to health and safety such as helmets, personal flotation devices and appropriate thermal wear (wetsuits) must be provided by the PCBU and must be worn. PPE should be appropriate for the task and fit correctly. PPE is not the first line of defence in minimising risk. You should always look for other forms of risk minimisation **as well as** using PPE.

When assessing risks and hazards you must engage with your workers, as well as a technical adviser.

You must also engage with your workers when making decisions about ways to eliminate or minimise risks.

Putting in place control measures

Once you've worked out what the most effective control measures are, put them in place as soon as possible.

Engage with your workers. Make sure that they understand:

- the risks that you have identified together
- the control measures that have been chosen and put in place
- how to apply the control measures (what they have to do)
- why it's important to use the control measures.

Monitoring the control measures

Control measures are not 'set and forget'. Situations change, as will your business and processes. It's important that you monitor how your control measures are working, to make sure that they remain fit-for-purpose, they're suitable for the work, and that workers are using them correctly.

- Engage with your workers and their representatives to see if the control measures are eliminating or minimising work risks.
- Check incident reports and near miss reports (and encourage your workers to report incidents and near misses).
- Carry out inspections of the work and the site(s), paying particular attention to known risks and risk control measures.
- Monitor regularly. All policies, processes and systems should have a scheduled date for a review or audit to check that they're being followed and are still fit-for-purpose.

Acting on lessons learnt

If you find that your control measures aren't working effectively, or if your workers have suggestions for improving them, take action.

If there's an incident or near-miss, investigate. Find out what caused it and what needs to change to make sure it doesn't happen again. If need be, go through the risk management steps again and look at how and where you might adapt or improve control measures.

Look outside your own business. Observe what's happening in the industry from the industry association and your fellow rafting operations. Look internationally, too. There are always things that you can learn and improve to make for better health and safety.

3.0 Managing risk: the river environment

IN THIS SECTION:

Individual rafting operations may conduct trips on a number of rivers or on different sections of the same river system.

This section identifies good practice safety management strategies for dealing with the river environment.

3.1 Grading rivers

Much of the risk you will have to manage will be determined by the grade of river that you are rafting.

New Zealand rivers are graded according to the international grading system in terms of their intensity and size. The rapids are rated on a scale of 1 to 6.

Rafting on grade 6 involves unacceptable risk levels. It is not an accepted practice for a commercial rafting operation.

When you develop any Standard Operating Procedure (SOP), it's important that you always identify the grade of the river (or rapid) you're referring to.

GRADE OF RAPIDS	CHARACTERISTICS
1	– have little to no current and small waves with no obstacles, and – a clear passage that is easy to recognise and negotiate, with no obstructions.
2	– have regular medium-sized waves of less than a metre – low ledges or drops, easy eddies, and gradual bends, and – a passage that is: - easy to recognise, and - generally unobstructed, although there may be rocks in the main current, overhanging branches or log jams.
3	– have fairly high waves of 1 to 2 metres – broken water, stoppers and strong eddies, exposed rocks and small falls – a passage that may be difficult to recognise from the river, and – require manoeuvring to negotiate the rapids.
4	– have high, powerful, irregular waves, broken water, often boiling eddies, strong stoppers, ledges, drops, and dangerous exposed rocks, – a passage that is often difficult to recognise, and – require precise and sequential manoeuvring to negotiate the rapids.

GRADE OF RAPIDS	CHARACTERISTICS
5	– have very confused and broken water, large drops, violent and fast currents, abrupt turns, difficult powerful stoppers, and fast boiling eddies – numerous obstacles in the main current – require complex, precise, powerful and sequential manoeuvring to negotiate the rapids, and – pose a definite risk to personal safety.
6	– are significantly life threatening if swum – unrunnable by all but a few experts – have impracticable difficulties and obstacles, and – very confused and violent water, which make controlled navigation by raft virtually impossible.

TABLE 1:
River gradients

3.2 Risks from rising water levels

Changing river levels can present a level of risk when rafting by affecting river flow and river difficulty.

- Water levels can rise through heavy or persistent rain or snow melt in the river's catchment.
- Landslips or avalanches into the river can change river flow, as well as changing the planned route in a rapid.
- Dam collapse or release can cause sudden river level and river flow change.

The raft operator should be constantly aware of river conditions.

- Be aware of the risks of rising water levels and know how to plan for, monitor, and react to them.
- Know the rivers and their catchment areas and any dam or landslide hazards.
- Be aware of water rising rates for particular weather patterns.
- Have methods for monitoring water rising rates, water level indicators and maximum safe water level.
- Have an SOP that defines maximum safe water level and how and when to cancel a raft trip.
- Have SOPs for dealing with rising water levels during the trip such as identifying safe waiting areas, escape routes and evacuation procedures.
- Check anticipated weather and river conditions before commencing any raft trip.

4.0 Managing risk: guides

IN THIS SECTION:

Guides are an important part of any rafting operation.

They're the people who have the most contact with the clients. They also have considerable influence on how risks to health and safety are managed, particularly during the raft trip.

Your guides must take reasonable care of their own health and safety, and of what they do or don't do, to make sure they don't adversely affect the health and safety of others. They also need to follow reasonable instructions and cooperate with any reasonable health and safety policy or procedure that they have been notified about.

4.1 Qualification of guides

Guides must have the knowledge, training and skills to carry out the work safely.

Good practice is that all guides hold a New Zealand raft guide award equivalent or higher to the grade of river being rafted. For example, a guide rafting a Grade 3 river will need to have at least a grade 3 award; guiding a grade 4 river would require at least a grade 4/5 award.

If a guide is going to carry out Trip Leader duties, they are expected to have current training in river rescue skills. In addition, they should follow industry good practice and keep up this training, renewing their certificate at least every 36 months. They have to be able to show verifiable evidence that they have carried out this training.

4.2 Medical and physical fitness of guides

Working as a guide can be physically demanding. Make sure that your guides are fit for guiding at the time of the trip. Guides should:

- be in good physical and mental health, and
- have the strength and core physical competencies necessary for raft guiding.

If your guides have any medical condition or injury that would affect their ability to do their job, they should let you know.

Impairment from drugs and alcohol

Guides must not operate when impaired by alcohol or drugs.

Alcohol and drugs can affect a guide's ability to operate safely. This includes taking prescription medication. If a guide is impaired by drugs or alcohol, they must not be permitted to guide a raft trip.

Engage with your workers when making decisions about how risks from alcohol and drugs will be managed. Establish a drug and alcohol policy that has clear guidelines for alcohol and drug use. The policy should include agreed ways to test and monitor alcohol and drug use amongst your workers and outline what action will be taken if a guide or other worker is suspected of being impaired.

Discuss your alcohol and drug policy during induction and training. Make sure all workers understand this. Regularly remind workers of the policy during staff meetings.

Involve your workers when reviewing the policy.

Impairment from fatigue

Guiding is physically demanding work which can be fatiguing. If people become tired, they can make mistakes, have slower reaction times and can find it harder to make safe choices. Fatigue reduces alertness which can lead to errors and incidents.

Fatigue in your guides is a risk that you must manage. So, as far as is reasonably practicable, you must eliminate the risk and if that's not possible you must minimise it (again, as far as is reasonably practicable).

Some of the things you can do to reduce the risk of fatigue in your guides include:

- making sure that the guides take regular, quality breaks during the raft trip
- making sure that the working hours are not long. If longer working days are required, build in longer rest breaks and/or days off work
- designing rosters so that your guides have good opportunity for sleep and recovery between work days
- finding out from your guides what they know about the risk of fatigue, what it looks like in themselves (see below) and what they can do to stop it happening to them
- checking with your guides regularly to find out if they are feeling fatigued and if anything needs to change to further reduce the risk of fatigue in the operation, and
- making sure that anyone can report fatigue-related issues to you or managers and supervisors and that these will be taken seriously.

However, guides also have to take reasonable care of their own health and safety. They should:

- turn up in a state fit for work having done everything possible to get a good sleep and rest
- recognise the signs and symptoms of fatigue
- let their manager or supervisor know if they're showing signs or symptoms of fatigue. Also make managers and supervisors aware of other guides who may be fatigued
- report any fatigue-related incidents.

Signs and symptoms of fatigue

- Feeling (constantly) tired.
- Having little energy.
- Feeling sluggish.
- Excessive yawning or falling asleep.
- Being less vigilant.
- Bad moods.
- An inability to concentrate.
- Poor decision-making.
- Slower reaction times.

4.3 First aid training for guides

Make sure your guides are capable of dealing with emergencies that might occur on a raft trip. If an emergency happens and there is any injury or risk to health, there may be delays before emergency services can attend.

Industry practice is that guides who carry out guide duties hold a current first aid certificate that meets accepted industry standards:

- for a guide who holds a national raft guide 2, 3 or 4/5 award – NZQA unit standard 6400
- for a guide who holds a senior national raft guide award, or who carries out trip leader duties on grade 1 and 2 rapids – NZQA unit standard 424.

These standards and their international equivalents can be found in Appendix 2.

4.4 Clothing and equipment for guides

All guides or trainee guides on any raft trip are required to wear:

- a fit-for-purpose personal flotation device
- a helmet (unless, in the case of trips on grade 1 or 2 rapids, the operator's SOP states that helmets are not required), and
- clothing, thermal wear and footwear appropriate to the activity and conditions of the day, and that meet the requirements of good safe practice.

Discuss the appropriateness of clothing and footwear with your guides. In the height of summer it might seem reasonable that light clothing can be worn, but talk with your guides about what might happen and whether or not the clothing makes for good safe practice.

Every guide should be rescue ready and carry the appropriate equipment. This equipment may include the following:

- river knife
- whistle
- locking carabiners
- releasable chest harness
- progress capture, for example prussic
- personal throw line, and
- flip lines.

4.5 On-going training for guides

Guide training is an on-going process. Even the most experienced guides need their knowledge and skills refreshed.

Guides starting with the rafting operation

When new guides start with a rafting operation, no matter what their level of experience, they must receive an induction as to how the operation works (for example, the SOPs and safety procedures of the rafting operation).

They should be familiar with the rivers that they will be guiding on.

Operators should ensure that guides are made aware of any known river- or trip-specific risks, as well the control measures you have in place to eliminate or minimise those risks.

Continual training

All guides should undertake company-specific training both on and off the river. All guides will need currency in river rescue. River rescue courses are an industry accepted measure of a guide's skill and experience. It is accepted industry practice that an Advanced River Rescue course is essential to becoming a senior guide.

There should also be continual and refresher training in all aspects of the rafting operation's practices and procedures, including reminders on the SOPs for all parts of the operation, and emergency procedures.

4.6 Training for trainee guides

If you provide training for trainee guides, you should provide a clear understanding of how trainees fit when carrying out commercial trips. You should define in your certified SMS:

- when trainee guides may undertake trips without on-river supervision and where the only other people on the raft are trainee guides
- when trainee guides may be carried on a raft with river conditions exceeding those permitted in your SOP
- when a trainee guide can control a raft without a qualified guide on board
- the procedures to be followed for trainee guides to take part in simulated incidents to test their rescue, recovery and emergency response skills, and
- procedures to make sure that the trainee guides are correctly equipped.

If a trainee guide is guiding a raft carrying passengers:

- make sure it is under the supervision of a senior guide or guide with sufficient experience who can maintain overall control of the raft, and
- that no simulated incident is carried out unless the passengers are advised of the risks and give their consent before embarking on the raft trip.

5.0 Managing risk: passengers

IN THIS SECTION:

Participants need to be adequately-informed, properly equipped and well briefed before any raft trip.

As other people in a workplace they should understand that they must:

- take reasonable care for their own health and safety
- take reasonable care that others are not harmed by something they do, or do not do, and
- comply, as far as they are reasonably able, with reasonable health and safety instructions that you may give them

5.1 Informing passengers about safety and risk

Pre-trip disclosure

Rafting is an adventure activity which involves inherent risk of harm. While it may be expected that passengers signing up for a rafting trip are aware of the risks involved in participating in the activity, you must tell them explicitly. Ensure that every passenger is told verbally of the risk(s) and if the passenger is a minor, then a responsible adult guardian should be told.

Risk disclosure involves outlining the type of harm(s) that could potentially occur in the activity.

Passengers should be told:

- what the grade of the river is and what they can expect
- what the activity actually involves (a broad picture of what the raft trip entails)
- the physical demands of the raft trip and the levels of difficulty the class of rapids will present
- the technical skills required and the level of physical fitness and ability required, of any highlighted risks on the section being rafted, and
- that they must follow the guide's instructions at all times and understand that this is critical to their safety and the safety of others.

If the river being rafted is grade 4/5 they should also be warned that there is no guarantee that they will stay in the boat.

Passengers on group-guided raft trips

Where passengers are booked on or about to undertake a group-guided raft trip, the raft operator should make sure that every passenger knows that:

- the raft trip the passenger is planning to undertake is group-guided, and
- the raft that the passenger is on may not have an on-board guide.

Passengers should be told this as early as possible so that they can decide whether or not they wish to proceed with the raft trip.

5.2 Ensuring the trip is suitable for the passengers

There are a number of questions that you need to ask passengers to determine if it's suitable for them to be taking part in the raft trip. Do this before the passengers are changed and ready to go.

- Check that they have provided the information you require for your records.
- Ask if they are confident in water.
- Check that they are not impaired by drugs or alcohol.
- Check that their age and physical ability is suitable for the trip.

Health conditions

You need to know if any of the passengers have a health condition or injury that could affect their ability to take part in the trip or your ability to help keep them safe. Also ask if there is any additional information needed to keep them safe (for example, if a participant is pregnant).

You can gather this information through a pre-trip checklist.

Knowing this information lets you:

- have a conversation with the participant where you can discuss any added risks they may face and the participant can explain the level of their abilities, and
- work out what actions you could take to keep them safe and minimise those risks, and lets the participant decide for themselves whether they want to accept the risk.

Medication

Ask passengers if they require medication to be carried on the trip so that safe transport and storage can be organised.

5.3 Raft safety brief

Some of your passengers may have no previous experience of rafting. Even if they do have experience, they may not have experienced the conditions of your river or trip. Every trip should have a safety brief and training for passengers. These should be appropriate for the nature of the rapids on the river and the level of risk involved.

In general a safety brief should tell the passengers about:

- the nature of the river they're about to raft, including the nature and hazards of the rapids they will encounter
- procedures for raft handling
- procedures for emergencies, capsizing, person overboard and general safety precautions, and
- seating assignments and any changes to these assignments.

Make sure the passengers receive a full safety brief. This could be as part of a group briefing or carried out by the guide taking the trip. Each point in the safety brief is important. Key areas should be demonstrated and then practised by the passengers.

Demonstrations and practices should include:

- swimming (defensive and aggressive)
- paddling techniques and commands
- safety commands and raft positioning (for example, hold on, lean in, lean left, paddles up), and
- rescue techniques: pulling passengers back in to the raft, close rescue/paddle rescue, throw-bag rescue and use of safety craft.

Check understanding

It is vital that passengers concentrate and understand the safety brief to the best of their ability. To check their understanding, ask them questions. If they have not understood, go over it again.

Have a safety briefing card

If you or your guide feels that a passenger is having difficulty understanding the briefing or demonstrations, give them a safety briefing card. The safety briefing card should be visual and easily understood, particularly for those of whom English is not their first language. Safety briefing cards are available from NZRA: www.nz-rafting.co.nz

5.4 Specialist personal flotation devices

Everybody on a raft must be equipped with a personal flotation device suitable for rafting.

Ensure that passengers are correctly fitted with a personal flotation device before they board the raft. Also ensure that the passengers wear their flotation device at all times, unless the guide or trip leader expressly directs that the personal flotation devices don't need to be worn in accordance with the operator's SMS.

Ensure that passengers are provided a Type 406 specialist personal flotation device with a buoyancy collar for use in white water rafting, unless:

- the audit provider approves another type of personal flotation device (if it is satisfied that the personal flotation device complies with a national or international standard, and is designed for use in white water rafting), or
- the personal flotation device is for use by children and is of a standard equivalent to a Type 406 device.

5.5 Helmets

Make sure that every passenger on a raft has a properly-fitting and adjusted helmet suitable for white water rafting, unless in the case of trips on Grade 1 or Grade 2 rapids, your certified SMS states that helmets are not required.

Your guides should make sure that the helmets are properly fitted before any passenger boards a raft, and that they are worn properly while travelling through rapids.

5.6 Clothing and footwear

Rafting on New Zealand rivers can be very cold, particularly when passengers get wet. Hypothermia is a real risk for rafters. As a rafting operator, make sure that every passenger is equipped with a wetsuit or other appropriate thermal wear, and footwear, appropriate to the prevailing river conditions and weather conditions.

Once the passengers are fitted, check that all the equipment and clothing fits correctly and is not damaged.

If any equipment or clothing is damaged to the extent that it will affect its performance, give the passenger an undamaged version. Identify the damaged equipment in a way that will prevent it from being used until it has been repaired.

If the rafting trip involves an overnight stay, make sure that:

- passengers bring adequate dry clothing to change into, and
- the clothing is stored in waterproof storage if it is being carried on the raft.

5.7 Safe seating of passengers

Make sure that there is sufficient room in a raft in normal operations for every passenger to be safely seated. The number of passengers each raft can carry should be identified in the SOP and will relate to the boat size and river conditions. If you identify additional risks (such as when cargo is being carried on multi-day trips or situations where controlling the raft may be affected), then you should reduce loadings.

Rafts should not be operated over-crowded, unless it is through rescuing overboard passengers from another raft. If a rescue situation occurs, the guide should take the raft to a safe point where passengers can be redistributed between rafts.

6.0 Managing risk: the raft trip

IN THIS SECTION:

The way raft trips are run is governed by your SOPs. This ensures that there is a consistency to what you do and when.

6.1 Rafts and their equipment

As a rafting operator, make sure that all your rafts, and all the fittings and equipment, are fit-for-purpose. They must be capable of safely carrying the people they're intended to carry on the grade of rapid in which they will be operating.

It is accepted industry practice that rafts used for work are of a multi-chambered type specified and approved for use in the rafting operation's certified SMS.

If the rafts are on hire or loan from another rafting operation, the raft, its fittings and equipment must also be of an approved specification and fit-for-purpose.

Safety features of rafts

Rafts used for work:

- are multi-chambered, of a type specified and approved for use in the operation's SMS
- maintain the pressure necessary for safe operation for the duration of the trip
- have bow and stern securing lines attached of sufficient length for the river being rafted
- have outside lines or hold-on lines properly secured to the raft that will be within reach of any swimmers alongside the raft, and
- have an adequate number of paddles, including spares.

In the case of a raft that is an oar-raft, there needs to be enough room inside the raft to allow the guide to control the raft.

Where it is a raft with a rowing frame, the raft should carry a minimum of three (3) oars as well as adequate rowlocks, oarlocks, pins and clips.

6.2 Equipment to be carried on raft trips

On any raft trip there is always the possibility that something can go wrong (for example, a raft capsizing, a raft puncturing, or paddles or oars being lost). You will need equipment to protect against these eventualities.

The equipment that you should carry will be determined by the nature of the river and the environment. For example:

- What level of rapids are there?
- Are there fallen trees in the river?
- Do you need equipment for a multi-day remote wilderness trip or just for a day trip?

In general, you should ensure that you have for every raft trip:

- a rescue throw bag with floating line that's of sufficient length and size for the river being rafted
- a rescue kit (for example, rescue rope, a pulley and a river saw) appropriate to the river being rafted, and
- a comprehensive first aid kit suitable for the river, the journey and the conditions.

On every trip there should be sufficient suitable equipment to deal with medical emergencies, rescue situations and damage to equipment.

These should be carried on the raft (or on one of the rafts in the case of a multiple raft trip), be readily available from an accompanying support vehicle, or from a cache at a location easily reached by the guides if provided for in your certified SMS.

Where you are operating multiple-raft trips, make sure that there is one (1) first aid kit for every five (5) rafts or 35 passengers, and that the kit(s) are available for the whole of the trip.

Where you are operating a group-guided trip, the rescue and first aid equipment is required only on rafts that have the guide on-board.

6.3 Safety craft

Using a kayak or river sledge

When you are running a kayak or river sledge as a safety craft, you must ensure that the person in control of the safety craft (the skipper) is suitably skilled and experienced for the job.

Skippers of a safety kayak or river sledge do not need to be qualified river guides, but they do need to have the same level of competency in river rescue skills and familiarity with the river as a guide. They must be able to safely navigate and perform rescues in support of the raft trip.

If you use a river sledge as a safety craft, it needs to be approved by the audit provider's Technical Expert.

Using a raft

When you are using a raft as a safety craft, it is to be used on the trip only as a safety boat (that is, it does not carry passengers). It must be under the control of a guide who has been trained to the appropriate level, with currency in river rescue, and is capable of carrying out the required safety and rescue functions.

Appendix 3 includes a list of functions and competencies to help operators to assess the competence required by people controlling safety boats.

6.4 Functions and checks before trips

Before every raft trip, there are functions and checks to be carried out.

Hours of operation

Operate rafting trips between sunrise and half an hour before sunset. The only exception to this is where operating outside these hours is the express purpose of the trip and is provided for in your certified SMS.

River and weather conditions

Make sure you have current and forecast weather and river conditions for the area that you will be rafting and for the particular time you will be rafting. Check the river and weather conditions against the SOPs. If there is any risk of conditions adversely affecting safety, you must take this into consideration before commencing a trip.

Other checks before trip

Before the raft is put on the river, the guide should:

- inspect the raft for wear, damage and ensure it is properly inflated
- make sure that any equipment that might pose a hazard through impact or entrapment is properly stowed, and that all loose equipment and containers, loops and ends of ropes and other tie-down material are secured
- assess the customers for suitability and any particular risk
- carry out a comms (radios and other communications devices) check, and
- make sure that the off-river responsible person is available and contactable.

A responsible person off-river

The raft operator, and each guide, should make sure that there is a designated responsible person off-river for each trip. The responsible person off-river should be aware of the raft trip details, including:

- the guides involved
- the number of passengers and their names
- the river and sections of river being run
- the estimated time of return, and
- critical times for activating emergency plans.

If any issue arises (either through contact from the trip or lack of contact after an agreed time), the responsible person off-river should be trained and capable of initiating an emergency plan as set out in the operator's SMS.

Back-up for sole guides

Where you are running a sole-guided raft trip, the responsible person off-river must be able to be contacted by the guide, passengers or emergency services, and must be able to coordinate a back-up guide if:

- the guide has become incapacitated, or
- the guide becomes separated from the passengers, or
- the guide is unable to continue to guide the trip safely.

Nobody on board a raft should be a risk to safety

Passengers should have sufficient mental focus and physical agility for the intended raft trip. If anybody is impaired, they could present a risk to their own safety and potentially to all other passengers and crew on the raft. This applies particularly to alcohol and drugs. Anybody impaired by drugs or alcohol should not be on the raft.

Physical impairment should not bar participation but every case should be individually considered and allowances made. The participant's specific needs should be identified and catered for. This may, for example, involve the participant undertaking a lower grade of trip.

6.5 Multiple-raft trips

A multiple-raft trip is a trip consisting of two or more rafts. This is what might be considered the standard raft trip. The critical person in these trips is the trip leader.

Qualifications of trip leaders and guides

It is industry accepted practice that trip leaders are trained, skilled and competent to plan and prepare for a complete raft trip. They should be able to carry out pre-departure checks and safety demonstrations. They should also have a proven competency at managing guides and participants throughout the trip, responding calmly and competently in any situation.

Trip leader is a position that requires skill and qualifications which should be set out in the operator's certified SMS.

An industry-standard trip leader:

- has currency in river rescue
- has a current first aid qualifications to NZQA unit standard 424 or industry-recognised equivalent, and
- is trained and well-practised in supervising staff and participants.

All other guides in the rafts meet the general guide qualification of holding a guide award equivalent or higher to the grade of river being rafted.

GRADE OF RAPIDS	TRIP LEADER	OTHER GUIDES
Grade 1 or 2	– A national raft guide grade 2 award, and: - has passed an assessment for river rescue that the auditor's Technical Expert considers is equivalent to the national standard for the specific river sections being rafted, and - meets the requirements for staff selection, training and supervision set out in the operator's certified SMS, or – a national raft guide grade 3 award and meets the requirements for staff selection, training and supervision set out in the operator's certified SMS, or – a senior national raft guide 3 award or higher. – All must have currency in river rescue.	Every raft has on board a guide with a national raft guide grade 2 award or higher, and currency in river rescue.
Grade 3	An industry-recognised senior raft guide award or higher with currency in river rescue.	Every raft has on board a guide with a national raft guide grade 3 award or higher, and currency in river rescue.
Grade 4/5	An industry-recognised senior raft guide grade 4/5 award with currency in river rescue.	Every raft has on board a guide with a national raft guide grade 4/5 award or higher, and currency in river rescue.

TABLE 2: Trip leader and guide qualifications for multiple-raft trips

Multiple operator raft trips

If you have a multiple-raft trip involving rafts of more than one rafting operation, work collaboratively with the other operation to identify a trip leader. The protocol should be set out in your certified SMS. Before the trip starts, ensure that there is an agreed and qualified trip leader, who has operational authority over all the rafts during the trip.

You should never undertake a multiple operator raft trip without working out in advance **who has authority and who does what**. You should not assume that the other operator will take responsibility for the health and safety of the people on the trip – this is a shared responsibility.

6.6 Sole-guided raft trips

A sole-guided raft trip is a raft trip lead by a single guide in a single raft, without the support of another raft guide or a safety boat.

Sole-guided raft trips are the exception to standard rafting operation. Having a single guide with no on-water support changes the risk for the participants. It is important that these risks are recognised and managed.

Before undertaking a sole-guided raft trip, the operator must ensure that the trip can and will be conducted only in accordance with the operator's certified SMS.

Qualifications of sole-guided raft guides

Industry accepted practice is that sole-charge guides have trip leader qualifications, including:

- currency in river rescue equivalent to the national standard for the specific river sections being rafted
- hold a first aid qualification to NZQA level 424 or industry-recognised equivalent, and
- meets the requirements specified in the operator's certified SMS for staff selection, training and supervision.

Training for an emergency

Participants should be adequately briefed and trained on emergency procedures so they know what to do in the event something happens to the guide during the trip.

At the pre-trip briefing, ensure that all participants:

- have access to and instruction in the use of the communications systems, and
- are briefed on what to do in the event of an emergency and that copies of these emergency procedures are secured in a waterproof container on the raft.

Rafting on grade 1 or 2 rapids

Raft operators ensure that a guide, who is undertaking a sole-guided raft trip on rivers with grade 1 or grade 2 rapids, holds a national raft guide grade 2 award.

The guide will also:

- have an assessment against a standard for river rescue, that the auditor's Technical Expert is satisfied is equivalent to the national standard for the specific river sections being rafted, and
- meet the requirements specified in the operator's certified SMS for staff selection, training, and supervision.

The guide of any trip on grade 1 or 2 rapids is responsible for conducting the trip in accordance the operator's certified SMS.

Sole-guided rafting on grade 3 rapids

Sole guiding on grade 3 should only be undertaken with considerable care, in consultation with the operator's technical adviser, and in accordance with the operator's certified SMS.

Sole-guided raft trips on grade 4/5 rapids should not be undertaken

Sole-guided raft trips on grade 4/5 rapids are not an industry accepted practice.

6.7 Group-guided raft trips

Group-guided raft trips are where at least one (1) raft in the trip has no on-board guide. Instead, the raft or rafts without a guide on-board are being supported by a guide who is on another raft, on the safety boat, or on the river bank. Group-guided rafting is used for:

- team building
- trainee guide's experience
- assessing international raft guides not qualified in New Zealand.

Grade 1 or 2 rapids

Except as provided below, raft operators must ensure that group-guided rafting is conducted only on grade 1 or grade 2 rapids.

For group-guided rafting on grade 1 and 2 rapids, the ratio of guides to passengers should be identified in the operator's certified SMS and be in keeping with industry good practice.

Grade 3 rapids

Group-guided rafting may only be conducted on grade 3 rapids if:

- the operator's certified SMS provides for this type of rafting, and
- the guide conducts the trip in accordance with the certified SMS.

Raft operators ensure that, for group-guided raft trips on grade 3 rapids:

- there is a minimum of two (2) guides
- a minimum of one (1) guide for every six (6) participants, and
- at least one guide holds a senior national raft guide grade 3 or higher.

No group-guided trips on grade 4 rapids or higher

Group-guided raft trips on rapids of grade 4 or higher are not an industry accepted practice.

Position of guides

Guides undertaking group-guided commercial raft trips should maintain visual contact with the other rafts and raft guides undertaking the same trip.

The guide should be positioned so that they can address any safety matters when navigating rapids.

Rapids with difficult passage

A guide of a group-guided commercial raft trip should ensure, for rapids whose passage may be difficult to recognise from the water, or if specific manoeuvring to negotiate the rapid is required, or if the rapid presents a significant hazard, that:

- the rapid is observed and analysed before running
- a route through the rapid is described to every passenger before running the rapid, and
- any additional safety precautions are in place before running the rapid, including, as appropriate:
  - a running strategy
  - providing a guide in a position and with the means to recover a person from the river
  - instructing passengers on self-rescue techniques, and
  - portage options.

7.0
Keeping records

Every raft operator should keep a documented record of their activities.

You will need documented records to pass your regular safety audits. It is also useful to help you with assessing risk. Below is the information you will need, and how long you should keep it for:

INFORMATION	KEEP FOR
Every raft trip undertaken, when and where.	36 months minimum – the period of an audit cycle.
The names of the guides on each raft trip.	
The names of the passengers on each raft trip.	
Every accident, incident, or mishap on board or involving a raft belonging to the rafting operation.	For the life of the operation.
The first aid qualification held by the guide and the expiry date of the qualification.	For the period of employment.
The fulfilment of the requirements specified in the operator's certified SMS for: – staff selection – training and supervision of staff, and – staff acting as sole-guide or trip leader.	36 months after end of employment.
Qualifications held and training completed by guides.	

TABLE 3: Documented record of activities

8.0 Planning for emergencies

IN THIS SECTION:

It is the nature of adventure activities that you are more likely to have incidents and the potential for emergency is greater than many other recreational activities.

Planning for, and knowing how each member of your team should respond in an emergency is critical. You must establish and maintain emergency preparedness and response plans for foreseeable emergencies that might happen in your operation. You must test those procedures regularly.

8.1 Emergency scenarios

To work out what emergency scenarios might apply to your operation, use your risk management processes. Think about activities and situations and ask yourself, 'What could go wrong?'. Include your team in this process and also look back on previous incident reports.

Scenarios should cover the following areas:

- incidents that can be managed internally, for example, a minor client health issue or a vehicle malfunction
- emergencies that require external support such as bringing in help for someone needing rescue from a raft trip in a remote location, or a 111 call for a serious injury
- a crisis involving loss of life which will require management by police and/or search and rescue
- a civil emergency such as a major flood or earthquake where emergency services are likely to be overwhelmed.

8.2 Response procedures and training

Once you have established the emergency scenarios that might happen in your operation, the next step is to work out in detail what procedures you will adopt in those emergencies. You should have step-by-step action plans so that everybody knows what has to be done and who is going to do it. When your plans involve local police or rescue services it is a good idea to contact them and get their input.

Involving and training your staff in the emergency response procedures must be a regular part of your operation. The more familiar you and your team are with your emergency procedures, the better placed you are to manage a crisis.

8.3 Emergency communications

Communication systems must cover communication between guides on the trips and back-up staff (the responsible person off-river), and ideally with emergency support services. As most communication relies on technology, you should factor in technology failure in your planning.

Communication systems could involve:

- mobile phone
- satellite phone
- two-way radio (for example, UHF radio)
- Emergency Position Indicating Radio Beacon (EPIRB)
- Personal Locator Beacon (PLB)
- tracking devices
- emergency flares.

Where emergency communications rely on coverage, make sure that staff are aware of any non-coverage areas and factor what you do in these situations into your procedures.

8.4 Contingencies for limited access

In many rafting situations, the ability of emergency services to easily access the site may be limited. You should factor this into your emergency procedures.

You might consider:

- informing participants of the possibility of a prolonged stay in the field in the event of an emergency
- have resources or caches available to maintain group safety for an extended stay in the field, for example, food, warm clothing, heat sources
- permanently rigging access and escape routes and storing evacuation equipment in the field
- training with rescue response personnel.

More detailed information on Emergency Response planning is available through the Support Adventure website: supportadventure.co.nz

9.0
Hire of rafts

If you are a PCBU that hires rafts out, you must ensure, so far as is reasonably practicable, that the rafts are without risks to the health and safety of persons who use them.

Before you hire out rafts:

- make sure that the rafts, and all the fittings and equipment for the rafts, are in good condition, are safe for use, and fit for purpose, and
- make sure that the conditions under which the rafts will be used and hired are fit for purpose.

Industry accepted practice is to ensure that the people hiring rafts have the necessary experience and are properly equipped to undertake the trip.

Any raft hire agreement you have should include and allow for:

- screening customers to ensure they have the necessary knowledge and skills in relation to the intended trip
- ensuring that customers have an induction into any methods of operation specific to the raft and equipment being provided or unusual features
- briefing customers on the river and river hazards and any environmental factors that could influence the safety of their trip
- making sure they have trip reporting, communications, and emergency plans, and
- have specific guidelines regarding alcohol and drug use.

An example of an industry raft hire agreement is included in Appendix 4.

Appendices

IN THIS SECTION:

Appendix 1: Checklist of information needed for inclusion in the Safety Management System

Contents

Emergencies

31. Emergency preparedness and response plans

Accidents, incidents, and mishaps

32. Recording and reporting procedures
33. Investigation procedures
34. Reviews

Ancillary services

35. Developing, implementing and maintaining SOPs

Document control

36. Ensuring good practice documentation of the SMS

Continual improvement

37. Developing, implementing and maintaining a process to ensure continual improvement
38. Reviewing the SMS
39. Reviewing adventure activities

Rafting operations

RAFT OPERATOR AND AREAS OF RAFTING OPERATIONS

Raft operator

- Legal owner name and contact details.
- Trading name of rafting operation.
- Name of person responsible for the approved safe operational plan.

Areas of rafting operations

Maps or plans detailing the areas of rafting operations and their environs showing at least the following information:

- river trip start points
- river trip finish points
- access/egress points to the river in emergencies such as roads, tracks and helicopter landing areas
- camp and stopover points
- pick-up routes for shuttle drivers
- significant rapids
- significant hazards on the river
- reception areas for cellular telephone, radio, other communication devices, and position indicating systems.

Leadership and management

APPROVAL OF SAFETY MANAGEMENT POLICY BY TOP LEADERSHIP

A policy to ensure top leadership approves the operator's safety management policy and to ensure that its importance and the way it's carried out are communicated to staff, participants and all relevant parties.

IDENTIFYING RELEVANT LEGISLATION, STANDARDS, CODES OF PRACTICE AND GUIDELINES

The process to identify the legislation (including local bylaws), standards, activity safety guidelines, codes of practice and any other similar information that is relevant to the safe management of their operations, including their ancillary services.

SETTING SAFETY GOALS AND OBJECTIVES

A description of how the operator will set goals and objectives that address safety and effect improvement. Objectives should be specific, measurable, achievable, relevant and time-bound.

When establishing safety objectives, the operator should consider:

i. hazards and risks

ii. technology and usage options

iii. financial, operational and business requirements

iv. the views of staff and relevant other parties

ASSIGNING SAFETY ROLES, RESPONSIBILITIES AND AUTHORITY TO COMPETENT STAFF

The policies for ensuring that specific authorities and responsibilities for safety requirements are assigned to competent staff.

COMMUNICATING SAFETY INFORMATION TO STAFF, PARTICIPANTS AND POTENTIAL PARTICIPANTS

A description of how the leadership and management is involved in developing and maintaining the system for communicating relevant safety information to staff, participants and potential participants and the system for risk disclosure between the operator and participant.

Rafts

DESIGN SPECIFICATIONS AND TYPES OF RAFTS

The design specifications for, and types of, rafts required to safely negotiate the rivers on which the rafts are to operate.

The policies for ensuring that only the rafts referred to in Section 6.1 and approved in the safe operational plan, are operated.

ENSURING NO SUB-STANDARD RAFT IS OPERATED

A description of how the raft operator will ensure that a raft is not operated in a sub-standard condition (for example, a schedule of inspection and maintenance, a retirement policy for rafts, and a procedure for taking rafts out of service).

Equipment

DESIGN SPECIFICATIONS AND TYPES OF EQUIPMENT AND CLOTHING

The design specifications and types of equipment and clothing that are required to ensure that persons are properly equipped to lead and participate in rafting operations on the rivers rafted by the rafting operation.

The operator's policies to ensure provision of all equipment and clothing is of a type specified in the guidelines as applicable (for example, paddles, personal flotation devices, helmets, throw-lines, wetsuits, thermal wear, footwear, repair equipment, and first-aid kits).

ENSURING ALL EQUIPMENT AND CLOTHING IS UP TO STANDARD

A description of how the raft operator will ensure that all equipment and clothing used for the rafting operation is:

- kept in good condition
- supplied in sufficient quantity
- available in an adequate range of sizes, and
- kept separate from equipment that is not in use.

EQUIPMENT CARRIED BY GUIDES

The procedures for ensuring that guides carry or wear personal rescue equipment appropriate to the river being rafted, (for example, a knife suitable for cutting rafts, a whistle, at least two carabiners, at least two prussic cords, a flip line, a throw bag.)

CLOTHING

A description of the clothing to be worn by guides, trainee guides and passengers to ensure compliance with this guidance

Where clothing requirements may differ between rivers or types of trips, a description of the clothing requirements, and procedures for ensuring compliance.

Guides

SKILLS AND EXPERIENCE REQUIRED BY GUIDES

The skills and experience required by guides who are to participate in the rafting operations.

The policies for employing persons who have the required skills and experience (See Section 4.1)

ENSURING GUIDES CAN SAFELY LEAD RAFT TRIPS

A description of how the raft operator will ensure that every person they employ as a guide can safely lead raft trips on the rivers rafted by that rafting operation.

The ways in which the raft operator ensures that their guides can safely lead raft trips including, for example, its arrangements for the following:

- training required
- assessments
- qualifications
- supervision
- limitations on the use of guides holding certain awards
- reviews
- induction training
- skill development
- minimum trips.

POSITION DESCRIPTIONS OF GUIDES

The position descriptions of the guides that the raft operator employs including, in relation to safety, the principal tasks and responsibilities of the guides and the raft operator.

ENSURING GUIDES ARE MEDICALLY AND PHYSICALLY FIT TO WORK AS GUIDES

A description of how the raft operator will ensure that guides are medically and physically fit to work as guides, including arrangements the operator has in place to ensure that guides do not take part in any raft trip where, in the opinion of the operator, a guide is impaired.

The procedures for a guide to follow where, in the opinion of the guide, it is no longer safe to permit another guide to take part, or continue to take part, in a raft trip because that guide is impaired.

PROCEDURE FOR REFUSING TO WORK AS GUIDE ON SAFETY GROUNDS

The procedure to be followed if a guide refuses to work on the grounds of compromised safety to themselves, other rafting guides, or passengers, including how to recognise a situation to which the procedure applies.

Passengers

ENABLING PASSENGERS TO BOOK A SUITABLE RAFT TRIP

A description of how the raft operator will provide all passengers with enough information to enable them to book a raft trip that is suitable to their needs and abilities.

SCREENING OF PASSENGERS FOR SAFETY REASONS

A description of how the raft operator will screen each passenger on a raft trip to ensure that the safety of the passenger and other passengers on the raft trip will not be compromised.

EFFECTIVE COMMUNICATION WITH PASSENGERS

A description of how the raft operator will ensure that all passengers receive and understand the information they need to participate safely in the raft trip.[1]

PASSENGER SAFETY WHEN SOLE GUIDE BECOMES INCAPACITATED OR SEPARATED FROM PASSENGERS

A description of how the raft operator will manage safety if a sole guide is incapacitated or becomes separated from the passengers.

On-river management

COMMUNICATION SYSTEMS

The communication systems used, including those between on-river guides and off-river support personnel for both operational and emergency support.

The arrangements in place to ensure that there is at least one means of effective emergency communication at all times.[2]

Back-up arrangements in case the primary means of emergency communication fails, including actions to be taken in the event of non-arrival of a rafting group at a pre-arranged time and place.

ENSURING RAFT TRIPS ARE SAFE IN ALL OPERATING CONDITIONS

A description of how the raft operator will ensure that each raft trip is carried out safely in all operating situations[3] including how the raft operator manages:

- passenger to guide ratios
- number of guides on each trip
- safety briefings
- ages of passengers
- raft departure times.

[1] For example, safety briefings, demonstrations, and information to passengers who are not English-speaking.

[2] For example, a distress beacon or radio (VHF, HF or UHF as appropriate to the river); or cell phone or satellite phone. To be effective, arrangements need to ensure communications in the area in which the raft trip is taking place (for example, a cell-phone will not be effective if the area being rafted has no cell-phone coverage).

[3] The details may vary from operation to operation and river to river. The raft operator may also place different emphasis on various areas, but only if overall safety is maintained.

DYNAMIC MANAGEMENT OF HAZARDS

The development of SOPs for staff to continually identify and manage hazards during each activity and the authority for staff to halt an activity if a hazard threatens the safety of any person

ADDITIONAL INFORMATION

If safety practices applying to a particular river require certain equipment to be provided or carried, a description of the following also needs to be included, as appropriate:

- the provision of safety boats
- ways of dealing with specific hazards
- inspection of sections of the river during a raft trip, and
- responsibilities of any person driving a support motor vehicle.

CHANGES TO RAFTING OPERATIONS

A description of how the rafting operation deals with changed or changing circumstances including the following:

- rafting infrequently rafted rivers
- new passenger groups
- increased river traffic
- alterations to riverbed topography.

Safe river flows and weather conditions

SAFE RIVER FLOWS

The river flows that are safe for the rafting operation.

The sources of the information referred to above.

The requirements to operate within those safe river flows.

SAFE WEATHER CONDITIONS

The types of weather conditions that are safe for the rafting operation.

The sources of information used to gather the weather conditions.

The requirements to operate within those safe weather conditions.

Health and safety responsibilities

HAZARD IDENTIFICATION AND MANAGEMENT

A description of how the raft operator intends to meet its health and safety responsibilities under the Health and Safety at Work Act 2015, including, but not limited to:

- the process used by the raft operator to identify the operational hazards that may cause harm to a person; and
- the way in which the raft operator will review operational hazards and how they are dealt with, including how raft guides are made aware of new hazards before guides and passengers are exposed to them, (for example, day-to-day changes in river conditions); and
- a description of how the raft operator will ensure participation of guides in the process of identification, control, and review of operational hazards, including:
  - following instructions given by the employer relating to health and safety
  - using appropriate personal protective clothing and equipment and following instructions for its correct use

- not misusing or damaging rafts and their equipment
- reporting accidents and significant hazards and mishaps to the operator, and
- complying with the monitoring system that the raft operator uses to ensure that the safe operational plan is adhered to in day-to-day operations.

DRUG AND ALCOHOL USE

A policy for how operators will manage the risk of drug and alcohol impairment among staff.

The policy must include the operator's methods for monitoring the drug and alcohol hazard, and their plans for responding to staff impairment due to drugs or alcohol.

Note: Operators should refer to the publication Guidance for Managing Drug and Alcohol- Related Risks in Adventure Activities (The Ministry of Business, Innovation and Employment, January 2013) for assistance.

Emergencies

EMERGENCY PREPAREDNESS AND RESPONSE PLANS

An emergency plan that:

- identifies potential emergencies
- outlines procedures to minimise the adverse consequences of these events, and
- includes procedures for:
  - situation management
  - call-out
  - evacuation
  - identification and allocation of resources
  - procedures for notification of police and rescue services, and
  - specifies training and exercises to ensure the effectiveness of the plan and prepares employees for any emergency.

Accidents, incidents, and mishaps

RECORDING AND REPORTING PROCEDURES

The recording and notification procedures for accidents, incidents, and mishaps, which must comply with section 56 and 57 of HSWA, section 8.1 of the Safety Audit Standard.

INVESTIGATION PROCEDURES

The procedures for investigating accidents, incidents, and mishaps.

REVIEWS

The procedures for reviewing accidents, incidents, and mishaps for causes and trends.

Ancillary services

A description of how the operator will develop, implement and maintain SOPs for their ancillary services.

Document control

The process to make sure documented information required for the SMS is:

a. readable, identifiable and traceable to the activity
b. periodically reviewed and revised as required
c. signed off as adequate by a competent and responsible person
d. current and available at appropriate locations
e. adequately protected from unauthorised modification, deletion and publication, and
f. removed from circulation if it is obsolete or clearly marked that it is not to be used.

Continual improvement

PROCESS

How the operator will develop, implement and maintain a process to ensure continual improvement of the SMS and safety outcomes.

INTERNAL REVIEW OF THE SMS

The process for reviewing, at least annually, the performance of the SMS against the SMS's stated goals and objectives. The review should take into account any audit findings, reports from Technical Experts and analyses and findings from reviews, including reviews of incidents.

INTERNAL REVIEWS OF ADVENTURE ACTIVITIES

How the operator will review their adventure activities to ensure compliance with the Safety Audit Standard. A review should also take place when prompted by:

a. audit findings
b. proposed changes to the adventure activities, including the sites used, that may change the hazards or significance of the hazards
c. changes to the environment in which the activity is conducted
d. changes to key staff.

Appendix 2: First Aid Certificates and their equivalents

The following table lists alternative first aid certificates accepted by the industry as being an equivalent or higher standard than that listed under Section 4.3 of this guidance.

MANAGING AUTHORITY OF FIRST AID CERTIFICATE	CERTIFICATE NAME	EQUIVALENT TO UNIT STANDARD
NZQA	Unit standards 26551 and 26552	6400
NZ Red Cross	Comprehensive First Aid	6400
NZ St John Ambulance	First Aid Level 2	6400
NZ St John Ambulance	First Responder First Aid	6400
Peak Safety	Outdoor First Aid	6400 and 424
Wilderness Medicine Institute	Wilderness First Aid	6400 and 424
NZQA	Pre-Hospital Emergency Care	6400 and 424
British Red Cross	First Aid at Work (FAAW)	6400
American Red Cross	First Aid: Responding to Emergencies with Adult CPR component	6400

Appendix 3: Safety Boats

The following list of functions and competencies has been prepared to help operators to assess the competence required by people controlling safety boats. Skill requirements for operating safety kayaks are also detailed on the NZRA website: www.nz-rafting.co.nz

Safety boaters should be able to:

- scout, read and run rapids without input or guidance from others
- position above or below hazards to assist and provide guidance to any potential swimmers
- maintain proximity to rafts to assist swimmers back to the raft if required, through verbal instruction, carriage or towing
- retrieve dropped paddles and equipment
- provide downstream containment by ensuring they access the furthest downstream swimmer
- access small eddies to assist in a rescue situation, and enter and exit the safety boat in difficult places
- rescue swimmers (those in most danger first)
- know the river and be familiar with specific hazards
- direct rafts efficiently through a complex rapid, using NZRA-recognised signals and company-specific signals
- pass on information about safe lines and hazards to raft guides
- retrieve and right abandoned rafts that may be washing downstream, while maintaining control of their own craft
- assist in raft-rescue situations to comparable levels as raft guides
- get a rope across the river
- provide first aid where necessary
- assist an unconscious victim to shore
- paddle out for help if required.

The safety kayak should have:

- sufficient volume to reduce risk to the paddler
- sufficient volume to perform front and rear deck carries
- well-maintained bow and stern grab loops or similar arrangements
- airbags or sufficient flotation to enable an abandoned kayak to be retrieved efficiently
- well-maintained bungs.

Equipment carried by a safety boat guide or skipper should include:

- webbing sling
- knife
- whistle
- throw bag
- at least two carabiners
- at least two prussic cords
- a releasable towline attached to PFD (in the case of a safety kayaker)
- first aid kit
- spare paddle.

Appendix 4: Raft rental example procedures

This details an example of policies and procedures for renting rafts and rafting equipment to private groups to run their own trips. It identifies the minimum requirements/skill level for a group to hire a raft and also the level of training to be provided by the rafting operation to make sure that the group has a quality and safe experience.

Rental Procedures and Responsibilities

1. PROCEDURES

[Name of rafting operation] will ensure that:

- Rafts and equipment hired out will be the same as those used in [name's] operation and approved by the New Zealand guided-rafting industry.
- The rafts will be used only on [named] river.
- The Rental Group will use [name of rafting operation's] commercial lifejackets unless they are a commercial guide or kayaker and have their own lifejacket (personal flotation device) of an industry-approved standard and in a fit-for-purpose condition, in which case this information will be recorded in the rental agreement.
- The Rental Group will receive the same hazard documentation as would be used in any [name of rafting operation] commercial trip.
- The Rental Group will be provided with two forms of communication, one of which must be a satellite phone and the other which can be a flare or heliograph or equivalent communication device. These devices must be carried in separate boats or containers. At least two (2) people in the group must be instructed in the use of the satellite phone and be aware of its limitations.

2. RESPONSIBILITIES

The staff member outfitting the Rental Group will ensure:

- That every member of the group understands and signs the Rental Agreement.
- That the Rental Group carries on the river copies of:
  - the hazard register
  - satellite phone instructions and emergency contact phone numbers
  - emergency 4WD access points
  - raft care and repair instructions
  - campsite and DOC hut information (if applicable)
  - [name of rafting operation] emergency procedures
  - pen and paper for use as a critical decision log.
- The Rental Group carries a comprehensive First Aid kit.
- That at least one member of the group has formal First Aid training and that this is recorded in the rental agreement.
- That in the case of an emergency the group will follow [name of rafting operation] emergency procedures.
- The Rental Group will be given the appropriate maps and sections of map, with all the relevant information, to cover the whole trip, and that at least one member of the party has the ability to read maps and understand grid reference points. The Rental Group has all necessary knowledge and information to comply with the terms of [name of rafting operation] DOC concession (if applicable).

3. SCREENING OF RENTAL GROUPS

i. It must be clearly established that no member of the hiring group is making a profit from the trip. If any member is running, or appears to be running, a clandestine commercial trip, they should be offered a [name of rafting operation] guide and run their trip under [name of rafting operation] group guiding procedures.

ii. **Points system**

- The Rental Group must meet minimum requirements in order to be able to hire a raft. If they do not meet those requirements, as defined by the points system below, they must attend a training day.
- A minimum of 10 points is required to hire up to two (2) rafts, with an extra five (5) points for each additional raft (that is, 3 rafts = 15 points minimum, 4 rafts = 20 points minimum).

a. **Points awarded**

10 points	if there is a current commercial guide on the trip
9 points	if a participant used to guide commercially
8 points	Grade 4/5 kayaker
5 points	Grade 3 kayaker
5 points	previous (name of river) experience
5 points	relevant experience on other rivers
1 point	Wilderness First Aid qualification
5 points	all in party have extensive outdoors experience

b. **Points deducted**

5 points	each child aged 14 or under
1 point	any member of the group with serious medical issues
1 point	any member of the group who did not attend a training day

iii. **Children aged 14 or under**

- In the points system, any child aged 14 or under will incur a deduction of 5 points.
- If there is a qualified guide on the trip, children under 14 must travel in their raft.
- There must be a parent or guardian who is responsible for the child within the group and this parent or guardian must travel in the same raft as the child.
- The name and signature of the parent or guardian accompanying the child, along with the name and age of the child, must be recorded on the rental agreement.
- The child will be required to attend a training day

4. TRAINING

- Any group that does not have the minimum points must attend a training day run by [name of rafting operation]. The aim of this day is to assess the existing skills within the group and to up-skill to a level that will reasonably ensure the safe return of all participants and equipment.
- The training will be to a similar level as NZ Guide Grade (2 or 3 depending on the river) appropriate to the [name] river and the conditions likely to be experienced.
- The training will be run by a guide with river rescue currency and who is qualified to be a [name of rafting operation] Trip Leader.
- The participants use the same rescue kit that they will be using on their trip
- If at the end of the training day it is apparent that the group does not have the skills to get safely down the river, they will not be able to run the trip by themselves. If this is the case they will be offered a [name of rafting operation] guide and run their trip under [name of rafting operation]'s group-guiding policy.

- All training must be recorded and the records kept in the [name of rafting operation] office.
- All participants, regardless of skill or experience will be trained in
  - the use of the satellite phone
  - raft care and repair
  - map reading
  - rope safety and securing a load to a raft.

5. RECORD KEEPING

When a Rental Group is on the water, the following details/paperwork will be recorded and be immediately available (for example, pinned to the wall in the office).

Rental details

- Who's on the trip.
- The skills and qualifications (relevant to the rental points) within the group.
- Who participated in the training day.
- Who will most likely be guiding, using the satellite phone, doing First Aid etc.
- Whether they have their own PFD or are using a [name of rafting operation] PFD.

Rental record

- Group organiser name, contact number and contact details.
- Put-in and take-out date, overdue instructions, off-river contact and phone number.
- Name of any child 14 years or under and the adult responsible.
- Number in party, attending training day and total craft on river.
- Satellite phone number and schedule time.
- All [name of rafting operation] On-River paperwork – hazards and rental appendices.
- First Aid kit and maps supplied.

Training day

- Date, river section used, river level and weather conditions on the day.
- Guide running the training day; other [name of rafting operation] staff/ trainees taking part.
- Checklist of what was covered in the training day, observations and relevant comments.

Rental agreement

- To be read by the [name of rafting operation] outfitter to all participants and signed by all, acknowledging and agreeing to all the points listed.

Outfitting checklist

- The checklist to ensure that the person outfitting the group has covered all the points covered by the Standard Operating Practice (SOP).

Appendix 5: Glossary

In these good practice guidelines, unless the context otherwise requires:

TERM	DEFINITION
AAO (Adventure Activities Operator)	A PCBU who provides an adventure activity to a participant and those activities are covered by the Adventure Activities Regulations: worksafe.govt.nz
Group-guided rafting	Rafting involving: – 1 or more rafts where at least 1 raft has no on-board guide, and – the raft or rafts without a guide on board are being guided by a guide who is located on another raft, safety boat, or the adjacent river bank.
Guide	A person who is responsible for guiding, teaching or assisting participants in a rafting activity.
Impaired	Affected by fatigue, injury, medical condition, or by the consumption of alcohol or other drugs to such a degree that the person may be a risk to their own safety, or that of any other person on a raft.
Industry-recognised	A rule, standard or qualification recognised and accepted by the New Zealand Rivers Association (NZRA).
Multi-chambered	In relation to a raft, means a raft that has multiple pontoon chambers that are separated by baffles, each of which has its own valve.
Multiple raft trip	A raft trip consisting of two or more rafts.
National raft guide award	A national raft guide award that has been issued by an award-issuing organisation; and includes a senior national raft guide award.
New Zealand Qualifications Authority (NZQA)	The Qualifications Authority established by Part 20 of the Education Act 1989.
New Zealand Rivers Association (NZRA – also known as the New Zealand Rafting Association)	The official organisation representing the sport of white water rafting in New Zealand.
Passenger/ participant	In relation to a raft, means any person carried on board a raft, other than a guide, a trainee guide, or any other worker of the raft operator.
Raft	An inflatable craft manoeuvred by: – oars or paddles, or – a combination of oars and paddles and may include inflatable kayaks and inflatable canoes if used in, or as an adjunct to, a commercial white water rafting operation.
Raft operator/ Operator	The person who is, for the time being, responsible for the management of a commercial rafting operation, and – includes a person who intends to conduct a commercial rafting operation but – does not include a person whose only involvement in a commercial rafting operation is as a guide.
Raft trip	A journey on a river, or artificial waterway with a generated current, using a raft.

[4] NZS 5823:2005. A type 406 is equivalent to an amended type 408 in NZS 5823:1989 or NZS 5823:2001.

TERM	DEFINITION
Reasonably practicable	Defined in section 22 of HSWA and, in relation to the duty of a PCBU, means that which is, or was at a particular point in time, reasonably able to be done in relation to ensuring health and safety, taking into account all relevant matters, including: a. the likelihood of the hazard or risk occurring; and b. the degree of harm that might result from the hazard or risk; and c. what the person concerned knows, or ought reasonably to know, about – i. the hazard or risk; and ii. ways of eliminating or minimising the risk; and d. the availability and suitability of ways to eliminate or minimise the risk; and e. after assessing the extent of the risk and the available ways of eliminating or minimising the risk, the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.
Safety boat	A kayak, river sledge, or a raft used to support the safety management of a raft trip, that meets the requirements of section 6.3 of this guide.
Standard Operating Procedures (SOPs)	Detailed written information and instructions or plans for performing a particular activity or task.
Safety Management System (SMS)	A documented management system for directing and controlling an operation in regard to safety.
Sole-guided raft trip	A raft trip led by a single guide in one raft without the support of another raft guide or a safety boat.
Technical adviser	A person or group of people that has professional credentials such as a high-level, nationally recognised qualification, or extensive knowledge, skills and experience to assist an operator with various technical tasks, including advising and reviewing the policies, practices and procedures relating to an activity.
Trainee guide	A person who is currently completing the training requirements specified for a national raft guide award.
Trip leader	A guide in overall control of a raft trip.
Type 402 personal flotation device/ type 402	A buoyancy aid that complies with section 402 of the New Zealand standard for buoyancy aids (NZS: 5823:2005).
Type 406 specialist personal flotation device/type 406	A buoyancy aid that complies with section 406 of the New Zealand standard for buoyancy aids (NZS: 5823:2005).4

Notes

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.

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