

# RIVER SAFETY

Rivers bring a special beauty to the New Zealand outdoors but they also pose a special hazard.

Rivers provide natural approach routes to the mountains, with routes often following riverbanks and gorges. On some popular tracks, there are swing bridges or cableways, but in New Zealand it is often necessary to ford sizeable rivers. This risky business requires skill and judgement.



## Rivers are hazardous

Rivers are one of the greatest hazards in the New Zealand outdoors. Errors of judgement, usually from overconfidence, often have serious consequences. There is an average of about three river-crossing deaths each year. Eighty per cent of these accidents occur in flooded rivers or side-streams.

It's not only the inexperienced who die. Experienced and skilled people have drowned after being tempted to give it a go against their better judgement.

Take all river crossings seriously; the risks are too great. It is important to take particular care with children playing in or near moving water.

## Training and practice

Anyone who goes into the outdoors should have training and practice in river crossing. You need to be aware of the variety of problems that can occur. There is a risk of:

1. Being swept away
2. Being swept against rocks
3. Being caught against logs
4. Hypothermia.

## Overconfidence

Even with experience, there is still a danger of becoming overconfident. Treat all rivers with respect. If in doubt, err on the side of safety and caution.

## The influence of weather

Rivers change with time and weather. Being able to anticipate these changes may influence your decision about when to cross, for example:

- In alpine areas, the heat of the day may cause the river to rise as snow melts, so you may be better to cross early in the day.
- Heavy rain in steep-sided valleys can lead to a dramatic rise in river level as water runs off the land quickly.

Some rivers may be impassable for a few hours only; others may be impassable for days. Understanding the type of river will help your decision-making.

## Warning signs

There are some signs which you must never ignore:

1. Discoloured, surging water
2. The sound of rolling stones on the riverbed
3. Trees and debris being carried along.

## Decision making

You can avoid many problems by planning a route that uses bridges, wire cages, or cableways. Plan to use recognised crossing places, but don't just plunge in – the riverbed may have changed.

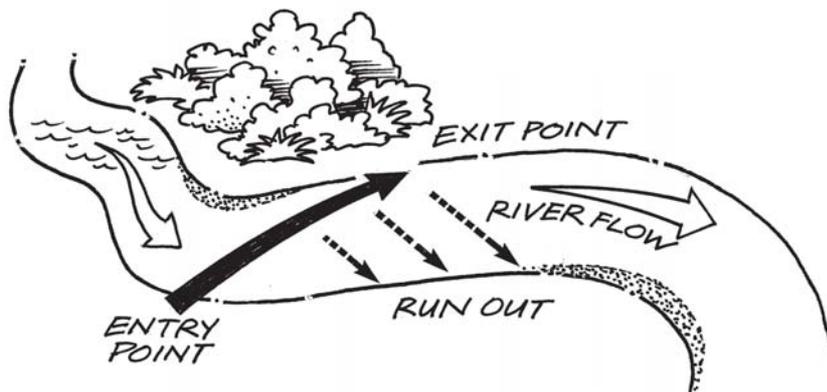
You should ask yourself three questions:

### 1. Do we cross?

If you decide that you need to cross, you need to assess whether the river is safe to cross, and whether all group members are adequately equipped and capable of crossing safely.

### 2. Where do we cross?

The choice of the safest place to cross is vital. Try to view the river from a high bank. You may be able to see gravel spits or sandbanks just below the surface and get some idea of the depth and position of channels.



### 3. How do we cross? Which method do we use?

Even on easy crossings, if the water is any more than knee deep you should use the strength of the group to make the crossing easier and safer. Although some people may feel confident, others may appreciate support.

#### Mutual support method

The mutual support method provides a backup for people who may lose their footing during a crossing. If you slip or lose your grip, your companions can support you.

#### Using waist belts or pack straps

This is the preferred variation, especially in deep water. It's quick to set up as it only requires normal equipment and it gives good support if anyone stumbles or slips.



1. Line up people according to their level of strength and experience.
  - a strong person at the upstream end of the line
  - the strongest, most experienced person alongside them for extra support
  - another strong person at the downstream end
  - the rest of the group in between
2. Undo chest straps and loosen shoulder straps.
3. Check that waist belts are done up.

4. Insert arms between each neighbour's pack and their back, and grasp either their waist belt or their pack shoulder strap (down low) on the opposite side.
5. Move into the river as a single unit.

### *Using a clothing grasp*

This is a good variation for straightforward crossings where the river is knee to mid-thigh deep and there is a weak current.

1. Line up people according to their level of strength and experience.
  - a strong person at the upstream end of the line
  - the strongest, most experienced person alongside them for extra support
  - another strong person at the downstream end
  - the rest of the group in between
2. Loosen shoulder straps if wearing day pack.
3. Insert arms between each neighbour's pack and their back, and grasp their pants or shorts on the opposite side at hip level. Ensure the grasp encompasses the belt or waistband that holds up the pants or shorts.
4. Move into the river as a single unit.



### **Individual method**

This is a useful technique for solo hunters and trampers. It lacks the strength of the mutual support methods but gives a confident person considerable support and is particularly helpful if the bottom is slippery.

Use a pole, about two metres in length and comfortable to grasp. Ensure that it is strong enough to support your weight.

1. Hold the pole in both hands diagonally across the front of your body.
2. Push the lower end into the riverbed about a metre upstream from your feet.
3. Lean on the prop as a 'third leg' to balance as you move each foot forward.
4. Move the pole through, not over, the water.
5. When both feet are securely placed, move the pole forward and push it into the riverbed again.
6. If you need to retreat then reverse your grip on the pole and turn yourself around (facing upstream) until you are ready to move back the way you came.



### **Recovery**

There is always a possibility that you can lose your footing but, if you choose a crossing place with a good run-out, this need not be disastrous. You must be able to rescue yourself, as the current can separate the group quickly and there may be several people swept away at once.

### **Regaining strength**

A mishap during a river crossing usually drains your strength. It is usually best to stop and make a hot drink, change into dry clothes, and possibly camp early.

## Popular tracks with river crossings

Some of NZ's popular tracks have river crossings that trampers should be wary of. MSC members point out to a few of these.

### North Island

A popular river valley trip along the **Waipakahi River** includes a route that criss-crosses the river many times. Generally, these crossings are easy to moderate and the rivers in the pumice country can take a lot of rain before they start rising, but once they do, they can become very big.

- Noel Bigwood, Horowhenua



**Holdsworth-Kaitoke Tramp** is popular tramp that follows the Waiohine and Tauherenikau Rivers for 36km between Holdsworth and Kaitoke. It involves crossing Makaka and Clem creeks near Cone Saddle, which rise rapidly and can get nasty. The crossings frequently cause problems when people get stuck between these creeks. This further becomes a problem when people tramp into Totara Flats Hut in good weather and then try to get out after a downpour.

- Murray Johnston, Wairarapa

The **Ngaruroro River** is an important recreation and natural resource in **Kaweka Forest Park**. When it is not flooded, it is a pleasant route to Cameron Hut, but visitors are advised to take care as the river can rise rapidly at times of high rainfall.

- Rod Voyce, Tauranga

The **track to the Roaring Stag Lodge** in the Eastern Tararuas includes crossing two wide creeks that swell rapidly when it rains. The main creek that leads to Ruamahanga River is very close to the hut – only 100m or so downstream – which can be very tempting to trampers who are anxious to retire to the hut immediately. Get home-it is has been a significant factor in river tragedies over the years.

-Warren Granger, Manawatu

### South Island

**Copland Track** follows the north side of the Copland River. On returning to the track end there is a creek to cross from which the car park is visible. Although there is a bridge about 20 minutes upstream, crossing the creek is often tempting especially at the end of a long day. This creek is normally low and easy, but if running high it has a poor runoff directly into the Karangarua River which can get nasty when flooded.

- Wayne Hodgkinson, Dunedin



The **Three Passes route** involves several river crossings, has some extremely steep sections, and all-year snow on Whitehorn Pass. The main danger for trampers lies in the crossing of subsidiary creeks, some of which are not bridged or cannot be bridged due to avalanches that often sweep the area.

- Rob Pieper, West Coast

**Fox River Cave Track** follows the north bank of the Fox River upstream across open river tracks. Two hours up the Fox River is Ballroom Overhang. Both are normally average crossings, but beware: West Coast rivers are fast to rise in heavy rains and equally as fast to subside.

- Tania McKinnon, West Coast

The **trip up Mt Tapuae-o-Uenuku**, the biggest peak north of Aoraki/Mt Cook, has more than 70 crossings. Trampers can easily be trapped in the Hodder Huts if the river rises, as it has a huge catchment and is the only feasible route to and from the mountain.

- Mark Anderson and Carol McKie, Marlborough

Rivercrossing is required at the following places: **Wilkin Valley** (Kerrin Forks and Jumboland), **Siberia to Lake Crucible**, the mouth of the **Young River**, and **East Matuki at Ruth Flat**. Drownings and incidents have occurred at all of these crossings, mainly in 'fresh' or 'flood' conditions. Most crossings are normally around knee deep apart from Kerrin Forks which is always at least thigh-deep.

- Heather Thorne, Wanaka

The **Lake Rotoiti circuit** in Nelson Lakes Park has a braided portion between Lakehead Hut and Coldwater Hut that several groups prefer to cross. This portion varies in depth and width depending on flow and season. Trampers need to be careful and should select a suitable spot. Due to the depth at the lake entry, this crossing should not be attempted less than 200m upstream from the hut -- either side.

- Garry Dunn, Nelson

## Tips on crossing rivers

### Before crossing

1. Decide whether or not you should cross – assess the river's depth, colour, speed, catchment area and runout; look for alternatives such as a bridge upstream; consider escape routes along your route; or wait for the river levels to drop. Choose a suitable and safe location. Never risk crossing a flooded river. If in doubt, do not cross.
2. Prepare yourself for crossing:
  - a. Pack chest straps should be undone.
  - b. Place any foam bedrolls on top of the pack.
  - c. Slightly loosen shoulder straps.
  - d. Use packliners to ensure that gear in your packs is waterproofed.
  - e. Remove leggings to reduce drag; leave your boots on.
  - f. Have a dry run of your crossing method. Inexperienced or weaker members should be in the middle of the group.



### During crossing

1. If crossing alone, make sure you use a pole to support yourself while crossing.
2. If in a group, use the mutual support method. Do not break up the formation until everyone in the crossing group is safely on the bank. Make sure you communicate with all members of the party.
3. Carefully pace your movement, do not hurry. It's better to be delayed but alive.
4. Stay in line with the current.
5. Stay away from boulders.

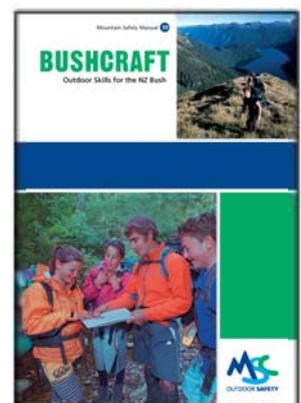


### After crossing

1. Check everyone for coldness, and change into warm or dry clothing. Hypothermia can start after crossing.
2. Have a snack or warm drink.
3. Check with the others if they are OK to continue with the tramp.

## Learn the essentials

- Attend an MSC river safety course – Practical instruction is essential for a full appreciation and understanding of rivers and to ensure techniques are mastered.
- Purchase and read an MSC Bushcraft Manual, an excellent resource for outdoor activities. It includes valuable information and current, recommended techniques for river crossing.
- Get local knowledge about the area you are in and the river you are about to cross.



For further information contact  
NZ MOUNTAIN SAFETY COUNCIL  
19 Tory Street / PO Box 6027, Wellington  
Tel 04 385 7162 Fax 04 385 7366  
Email: [orders@mountainsafety.org.nz](mailto:orders@mountainsafety.org.nz)  
[www.mountainsafety.org.nz](http://www.mountainsafety.org.nz)  
[www.avalanche.net.nz](http://www.avalanche.net.nz)  
[www.incidentreport.org.nz](http://www.incidentreport.org.nz)