

# **Buchan Valley**

# **Local Flood Guide**

Flood information for the Buchan Valley at Buchan





For flood emergency assistance call VICSES on 132 500







### Flood risk in the Buchan valley

You may be at risk of flood in the Buchan Valley if you live or work at a property situated adjacent to the Buchan River, or you require access through a road/bridge which is located near the river or low-lying floodplain. You may also be at risk of flash flooding which occurs with little warning, only lasts a short time and can cause severe localised damage. Get ready, have a plan.

The Buchan Valley (which forms part of 1214km² catchment that includes the Murrindal River) is long and narrow, ranging from 10-25 kilometres wide and over 75 kilometres long. The whole catchment is relatively steep and vegetated with native forests, with areas of pasture alongside the Gelantipy Road and around the Buchan township.

In smaller events flooding generally remains confined within the main channel throughout the Buchan Valley area. At its widest point, the flood extends out to around 260 m across the floodplain, upstream of the township.

In larger events the Buchan township is impacted by deeper flooding, and various buildings may experience flooding above floor level with flood depths above 0.30 metres. The local recreation reserve may also be inundated at these levels. Several roads will be closed within the township because of significant flood depths and velocities that pose a risk to the public.

Most Buchan residents are located on elevated ground, away from direct impact of flood waters.

The Buchan River travels through the township of Buchan before joining the Snowy River from the west downstream from Basin Creek.

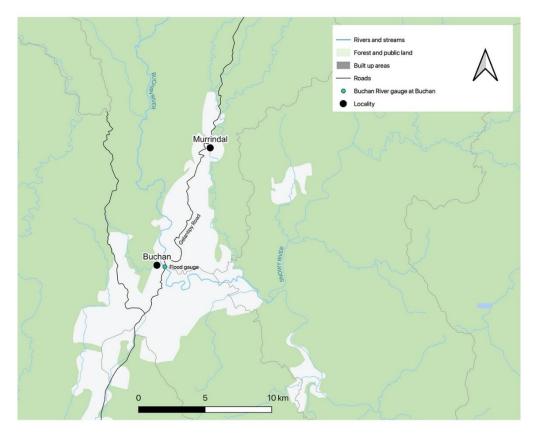


Figure 1: The Buchan township along the Buchan River



Figure 2: Buchan Recreation Reserve which may be inundated during flood events

# Did you know?

The largest recorded flood for the Buchan River in Buchan was in June 2012 reaching 4.45m. Other significant Buchan River floods occurred in February 1971 (4.13m), November 1988 (4.1m), June 1998 (4.2m), June 2014 (2.39m), July 2016 (4.3m) and December 2023 (3.78m).

The Buchan Caves, the region's main visitor attraction, have been impacted by flooding. In July 2016 the Buchan Caves



No two floods are the same. Floods like this or worse could occur again.

If you live in a low-lying area you may be at risk of flooding or need to detour around flooded areas.

Knowing what to do can save your life and help protect your property.

Reserve was closed due to rising flood water (with the Buchan River reaching 4.3m at the peak of the event). In December 2023, a severe thunderstorm resulted in localised intense rainfall causing significant stormwater run-off across Buchan, and severe flash flooding in Spring and Fairy Creeks impacting the Buchan Caves Reserve. During this event over 110 millimetres fell at Buchan with 69.4 millimetres in the 30 minutes to 4:48pm and 87.8 millimetres in the one hour to 6:18pm. The December 2023 rainfall amounts were extreme and more than a 1 in 2000 AEP rainfall event.

# Flood maps

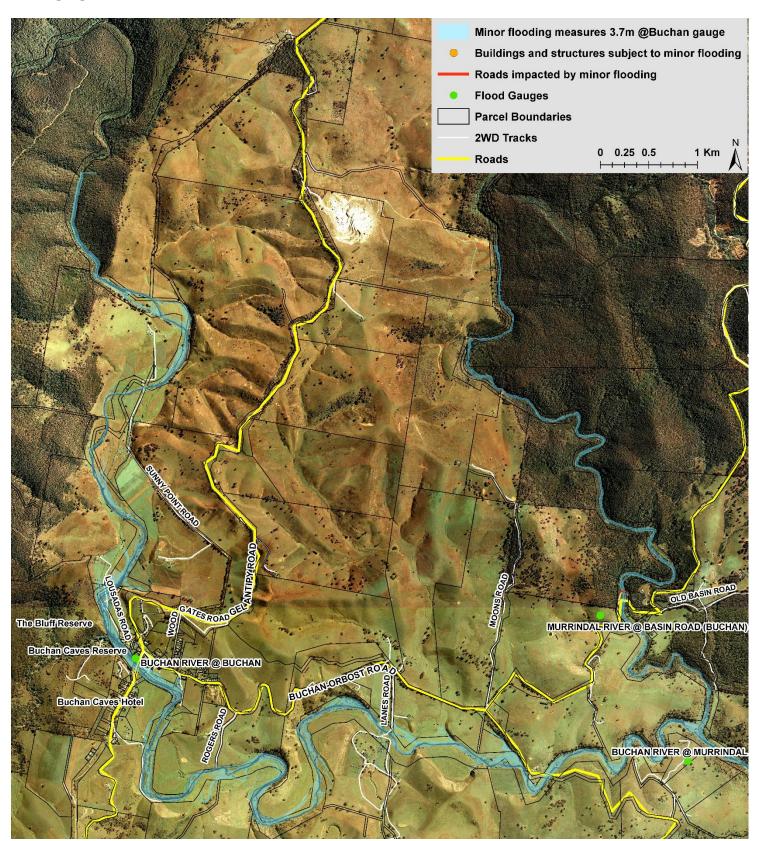
Flood class levels (minor, moderate and major) are used by the Bureau of Meteorology to categorise flood events and to broadly describe the impact.

Properties located near rivers and creeks may experience flooding due to heavy rainfall. This rainfall may have occurred upstream, but eventually the runoff enters the river/creek and arrives downstream. The extent of damage depends upon the maximum height that the river/creek peaks at.

You can check what the expected general impacts can be from minor, moderate and major flooding in the table below in the section titled *Flood Warnings and Emergency Checklist*.

The following series of maps (Figures 4 to 6) show the expected flooding in a minor, moderate and major flood in Buchan, which have been derived from a rapid flood study¹ for the Snowy River developed in 2017.

Figure 4: Minor flooding along the Buchan River - a minor flood measures 3.7 metres on the flood gauge at the Buchan.



<sup>&</sup>lt;sup>1</sup> East Gippsland Floodplain Management Strategy Resource Document: Flood Risk Report – Buchan Valley (Water Technology, 2017)

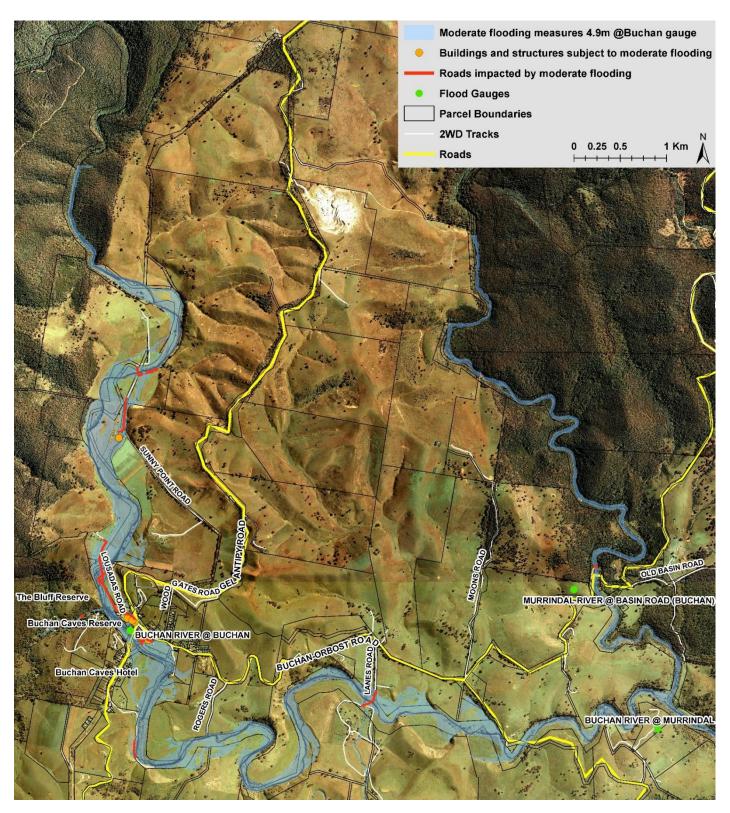


Figure 5: Moderate flooding along the Buchan River - a moderate flood measures 4.9 metres on the flood gauge at the Buchan.

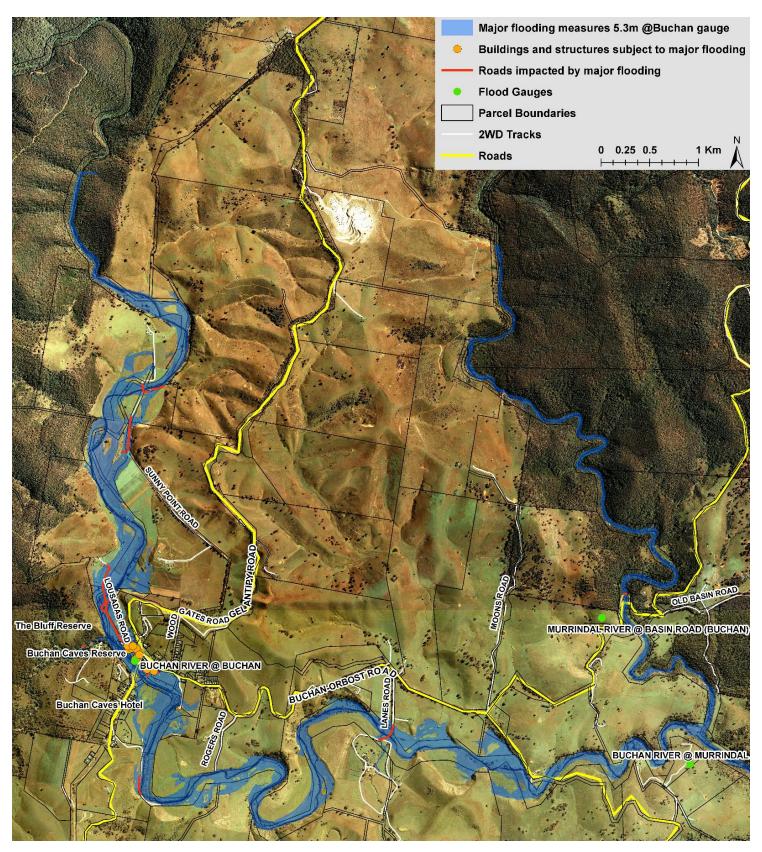


Figure 6: Major flooding along the Buchan River - a major flood measures 5.3 metres on the flood gauge at the Buchan.

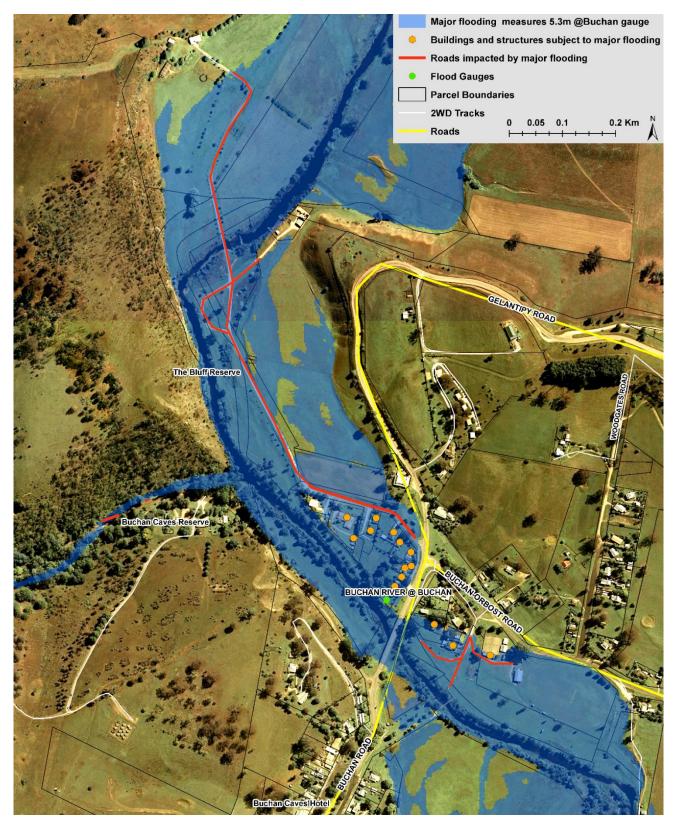


Figure 7: Major flooding in the Buchan township - a major flood measures 5.3 metres on the flood gauge at the Buchan.

#### Disclaimer

This map publications presented by Victoria State Emergency Service are for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by Victoria State Emergency Service. No liability is accepted for any damage, loss or injury caused by errors or omissions in this information or for any action taken by any person in reliance upon it. Flood information is provided by East Gippsland Catchment Management Authority.



# Flood levels at the Buchan River gauge

The Bureau of Meteorology (BoM) provides warnings for Buchan and Buchan River floodplain using the Buchan River gauge, which is located at the Main Road bridge in the township. The BoM take their information from the catchment rainfall to calculate the predicted height to be reached at this gauge. It is very important to keep an eye on rain gauges for your own circumstances during a significant rain event.

You can also go online to check local gauges to guide your response to potential flooding. Go to <u>The Bureau</u> of Meteorology website and identify 'Buchan River' – Select 'plot' for current height information.

The table below can give you an indication of what you could in your area when water levels reach certain flood heights, including when your access may be cut off and when your property may be affected.

Flood event	Height (metres)	Impact/level
MINOR	3.7	<ul> <li>29<sup>th</sup> June 2007 saw the Buchan River reach 3.75m at the Buchan gauge.</li> <li>The river's banks are now full and flood-runners and oxbows are engaged. Overtopping is occurring in low areas of the floodplain.</li> <li>Majority of flooding is confined to low agricultural land.</li> <li>Approaches to the Buchan bridge on Lousadas Road is inundated greater than 0.3 of a metre (300 mm) with the bridge closed and the potential isolation of two properties, though the expected isolation time is minimal.</li> </ul>
MODERATE	4.9	<ul> <li>Large areas of floodplain are now engaged.</li> <li>Flooding is greater than 0.3 of a metre (300mm) at Slippery Pinch Road to immediately north-east of the Sunny Point-Slippery-Point Road junction.</li> <li>Property (small shed and a house) is inundated by greater than 0.1 of a metre (100mm) off the Sunny Point Road.</li> <li>Access via Caves Road is unsafe with depths exceeding 0.3 of a metre (300mm) in some sections at approximately 250 metres west from the Buchan River.</li> <li>Lousadas Road experiences depths around 0.5 of a metre (500mm) or greater to the north of the bridge from the Buchan River.</li> <li>Three buildings around Davidson Street to Saleyard Road are inundated by greater than 0.1 of a metre (100mm), the backyards of surrounding allotments may be flooded above 0.3 of a metre (300mm), however egress (access) is maintained to both roads.</li> <li>Three buildings adjacent to Centre Road are impacted by greater than 0.1 of a metre (100mm) in depth, with areas of vacant land facing Buchan River under 0.3 of a metre (300mm) of inundation.</li> </ul>
MAJOR	5.3	<ul> <li>An additional nine buildings are inundated above 0.1 of a metre (100mm) and up to 0.5 of a metre (500mm) in some areas), around the constriction at the Main Road Buchan River bridge.</li> <li>The Saleyard Road is blocked with depths exceeding 0.3 of a metre (300mm)</li> <li>In addition to the properties impacted, the flood extent backs up behind Buchan, into the floodplain west of Gelantipy Road.</li> </ul>

NB. In response to the latest flood study<sup>2</sup>, the gauge at Buchan now has new flood class levels: The old levels for:

- a minor flood was 2.5m, this has increased 1.2 metres to 3.7m
- a moderate flood was 3.5m, this has increased 1.4 metres to 4.9m

Summary Report - Review of Flood Class Levels in East Gippsland: A report for the East Gippsland CMA (Water Technology, 2020)



Flood event Height Impact/level (metres)

a major flood was 4.0m, this has increased 1.3 metres to 5.3m.

# Larger flood event

In the event of flood larger than a major flood event, a further number of breakouts are activated, and the flooding spreads out further across the floodplain. There is also a significant increase in flooding around the township, and 3,976 m of roads and bridges may be overtopped.

- Flooding along Lousadas Road, Saleyards Road and Davidson Street (all upstream of the Main Road in Buchan) will be significant, with flood depths throughout the area well above 1 metre. Downstream of the Main Road bridge, Centre Road and Buchan-Orbost Road are likely to experience flooding above 1 metre in depth, as well as the recreation reserve and the floodplain to the south of the Buchan River.
- Over bank flows (inundation of the floodplain) occur across the following roads:
  - Sunny Point Road
  - Saleyard and Lousadas Road upstream of town
  - Lanes Road on both the northern and southern side of the Buchan River
  - Main Road at Buchan, on the northern side of the river
  - Centre Road, immediately downstream of the Main Road bridge at Buchan
  - Buchan–Orbost Road downstream of the Main Road at Buchan.
- The roads listed above are likely to close given the expected flood depths and velocities. Other roads which may experience flooding include: Balley Hooley Road, Basin Road, Buchan-Orbost Road, Caves Road, Davidson Street and Slippery Pinch Road.
- A total of 24 buildings are expected to experience above floor flooding with flood depths above 0.30 m. All buildings (except one at Sunny Point Road, 2km north of the town) that are expected to experience above floor flooding are located within 1 km of Buchan township.
- A further 12 buildings are within the flood extent with flood depths below 0.30 m, and several additional rural properties around Buchan and along the Buchan River are also likely to experience flooding.

Staying Informed and Further	Information	
Current warnings (VicEmergency)	emergency.vic.gov.au	1800 226 226
Keep a watch on emergencies near you by t	apping the 'Create watch zone' blue bo	ox and follow instructions.
Bureau of Meteorology (BoM)	bom.gov.au/vic/warnings	1300 659 217
VicRoads Traffic	traffic.vicroads.vic.gov.au	
Emergency Broadcasters	ABC Gippsland 100.7FM or 828AM SKY NEWS Television REGFM 105.5 TRFM 99.9	Life-threatening Emergency 000
VICSES Social Media	facebook.com/vicses twitter.com/vicsesnews	
Preparing for Flood Emergencies	ses.vic.gov.au/get-ready	
Creating an Emergency Plan	redcross.org.au/prepare	
East Gippsland Catchment Management Authority	egcma.com.au	(03) 5152 0600
East Gippsland Shire	eastgippsland.vic.gov.au	(03) 5153 9500
National Relay Service NRS	relayservice.gov.au	



# Flood warnings and emergency checklist

A **Flood Watch** means there is a developing weather pattern that might cause floods in one or two days. This service covers the whole state.

A **Flood Warning** means flooding is about to happen or is already happening. There are minor, moderate and major flood warnings. This service is only available where flood warning systems are in place.

A Minor Flood Warning means floodwater can:	A Moderate Flood Warning means floodwater can:	A Major Flood Warning means floodwater can:
Spill over river banks and cover nearby low lying areas.	Spill over river banks and cover larger areas of land.	Cause widespread flooding.
Come up through drains in nearby streets.	Reach above floor levels in some houses and buildings.	Many houses and businesses are inundated above floor level.
Require the removal of stock in some cases.	Require evacuation in some areas.	Cause properties and whole areas to be isolated by water.
Cover riverside camping areas and affect some low-lying caravan parks.	Affect traffic routes.	Closes major roads and rail routes.
Cover minor roads paths, tracks and low level bridges.	Require the removal of stock in rural areas.	Require many evacuations.
Affect backyards and buildings below floor level.		Affect utility services (power, water, sewage etc).

#### **Severe Thunderstorm Warnings**

Thunderstorms are classified as severe when there is potential to cause significant localised damage through wind gusts, large hail, tornadoes or flash flooding. Severe Thunderstorm Warnings are issued to the community by BoM.

#### **Severe Weather Warnings**

These warnings are issued to the community by BoM when severe weather is expected that is not directly related to severe thunderstorms or bushfires. Examples of severe weather include damaging winds and flash flooding.

#### Flash Flooding

- Flash Flooding can occur quickly due to heavy rainfall. You may not receive an official warning.
- Stay informed- monitor weather warnings, forecasts and river levels at the <u>BoM website</u> and warnings through <u>VicEmergency</u>.
- Remember, you may not receive any official warning.
- Emergency assistance may not be immediately available. Be aware of what is happening around you to stay safe.
- Never wait for a warning to act.



#### **VICSES Warnings**

VICSES utilises the VicEmergency app, website and hotline to distribute flood warnings and emergency information in Victoria. Communities can also access this information through VICSES social media channels and emergency broadcasters.

VICSES warnings aim to provide you with information to help you make good decisions to protect yourself and your family. The warning level is based on severity, conditions and the likelihood that the emergency could impact on the community.

# WARNING LEVELS



#### **EMERGENCY WARNING**

You are in imminent danger and need to take action now. You will be impacted. A Major flood warning usually fits into this category.



#### **WATCH AND ACT**

An emergency is developing nearby. You need to take action now to protect yourself and others. A Moderate flood warning usually fits into this category.



#### **ADVICE**

An incident is occurring or has occurred in the area. Access information and monitor conditions. A Minor flood warning or Flood Watch usually fits into this category.

#### **EVACUATION**

If an evacuation is recommended, you will be guided to do so in the action statement in the warning.



#### PREPARE TO EVACUATE/EVACUATE IMMEDIATELY

An evacuation is recommended or procedures are in place to evacuate.

#### **ADDITIONAL MESSAGES**



#### **COMMUNITY INFORMATION**

A newsletter containing updates for communities affected by an emergency.

Can also be used as a notification that an incident has occurred but there is no threat to community.



#### **EMERGENCY ALERT**

During some emergencies, we may alert communities by sounding a local siren, or by sending an SMS to mobile phones or a voice message to landlines.

## Your emergency plan

Emergencies can happen at any time and with little warning. People who plan and prepare for emergencies can reduce the impact and recover faster.

East Gippsland Shire Council has worked with many communities to develop Local Incident Management Plans which are activated by the community in emergency events.

For further information go to eastgippsland.vic.gov.au.

Taking the time to think about emergencies and make your own plan helps you think clearly, have more control and make better decisions when an emergency occurs.

Visit <u>redcross.org.au/prepare</u> start creating your plan.



# **Emergency Kit**

#### Visit **Emergency Toolkit** for more information



Every home and business should have a basic emergency kit with supplies for 3 days:



Check your kit often. Make sure things work. Replace out of date items.

#### When a warning is issued, have ready for use or pack into your kit:

#### I need to add:

write your list nere.	lick items a	as you	pack tnen	n into y	our kit.

Special needs (eg, babies, elderly and people with a disability)		
Photos		
Family keepsakes		
Valuables		
Other		



# **Emergency Checklist**

Check if your	insurance	policy	covers	flooding.

Keep this list of emergency numbers in your mobile phone.

Download the Vic Emergency app on your mobile phone.

Put together an emergency kit and prepare a home or business emergency plan, see <a href="https://www.redcross.org.au/prepare">https://www.redcross.org.au/prepare</a>



#### **Before Flooding**

Leaving early before flooding occurs is always the safest option. Evacuating through
floodwater is very dangerous and you may be swept away.

- Stay informed- monitor weather warnings, forecasts and river levels at the <a href="http://www.bom.gov.au">http://www.bom.gov.au</a> and warnings through <a href="http://www.bom.gov.au">www.emergency.vic.gov.au</a>
- If safe to do so, communicate with your neighbours.
- Secure objects likely to float and cause damage.
- Listen to the radio and check the VICSES website for information and advice.
- Go over your emergency plan. Pack clothing and other extra items into your emergency kit and take this with you if you evacuate.
- If you are staying in a caravan, move to higher ground before flooding begins.

#### **During Flooding**

- ☐ Make sure your family members and neighbours are aware of what is happening.
- Conditions change rapidly; roads and escape routes can be covered or blocked.
- Put household valuables and electrical items as high as possible.
- Turn off water, gas and electricity at the mains.
- ☐ Seek shelter indoors, away from floodwater.
- If floodwater comes inside, move to a higher point such as a kitchen bench or second storey.
- □ Stay away from trees, drains, low-lying areas, creeks, canals, culverts and floodwater.

#### **Evacuating in Flooding**

Flood water is dangerous. Stay safe by never entering flood water. It can take just 15cm of
water to float a car.

- ☐ Find alternative travel routes if roads or underpasses are flooded.
- Be aware of driving hazards, such as mud, debris, damaged roads and fallen trees. If driving conditions are dangerous, safely pull over away from trees, drains and floodwater.

#### **After Flooding**

- □ For recovery information, contact your local council, go to the VicEmergency Relief and Recoveryemergency.vic.gov.au/Relief page or call the VicEmergency Hotline (1800 226 226).
- Have all electrical and gas equipment professionally tested before use.
- □ Stay away from damaged and flooded buildings, fallen trees and powerlines and damaged roads.
- ☐ Drive slowly, obey all road signs and never drive through floodwater.
- □ When cleaning, protect your health and safety. Wear strong boots, gloves and protective clothing.



For VICSES emergency assistance, call 132 500, or Triple Zero (000) in life threatening emergencies.