



Flood information for the Werribee and Lerderderg Rivers at Bacchus Marsh



Your Local Flood Information



Disclaimer

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Your Local Flood Information

The Bacchus Marsh local area

Bacchus Marsh is located west of Melbourne on the Werribee River floodplain. The Lerderderg River, Parwan and Coimadai Creeks join the Werribee River just downstream of Bacchus Marsh.

The Werribee and Lerderderg Rivers originate in the Wombat State Forest and flow through farmland to Bacchus Marsh. The Werribee River flows into the town from the west along Werribee Vale Road and flows through Bacchus Marsh to the east.

The Lerderderg River flows along the northern and eastern boundaries of Darley and low-lying areas beside the Lerderderg River are susceptible to flooding.

Map 1 shows a major riverine flood in Bacchus Marsh (5.6 metres on the Werribee River gauge at Bacchus Marsh) as well as showing the extent of the November 1995 flood in the town (5.19 metres). Map 2 also shows the major flood level in Bacchus Marsh and Maddingley in more detail.

Your local emergency broadcasters are:

- ABC Radio 774 AM
- SKY NEWS Television

Moorabool Shire contact details:

 Ph:
 (03) 53667100

 After Hours:
 0419 887 065

 Email:
 info@moorabool.vic.gov.au

 Web:
 www.moorabool.vic.gov.au

Are you at risk of flood?

Bacchus March is susceptible to flooding from rivers and creeks overflowing after prolonged rainfall (riverine flooding) and also to flash flooding after high intensity rainfall often associated with thunderstorms.

Riverine flooding in Bacchus Marsh is caused by flooding of the Werribee River. If the Lerderderg River floods at the same time as the Werribee River, then flood heights and impacts in Bacchus Marsh will be much greater. In general, prolonged heavy rainfall over 12 hours or more will cause riverine flooding in Bacchus Marsh. Overflow from Pykes Creek Reservoir, upstream of Bacchus Marsh, can also increase flooding of the Werribee River.

During large riverine flood events, extensive flooding could occur in Bacchus Marsh, including Maddingley, the CBD, the Avenue of Honour and Woolpack Road areas. The roads to Werribee and Geelong may also be affected. Flooding tends to be deeper south of the Werribee River.

Flash flooding in Bacchus Marsh typically affects urban areas in Bacchus Marsh, Darley and Maddingley. This generally results from short duration, high intensity rainfall of approximately 15-20 millimetres in 30 minutes. There are many low-lying areas which may be subject to flash flooding.



Your local flood information

Did you know?

Bacchus Marsh has a history of flooding, including floods in 1861, 1874, 1880, 1891, 1916, 1941, 1952, 1975, 1978, 1983, 1985, 1993, 1995 and 2011.

Bacchus Marsh has a history of both riverine flooding (from local waterways) and flash flooding from heavy rainfall over a short period of time. These two types of flooding can impact the town differently.

Riverine flooding

The 1995 flood occurred when very heavy rain fell on a saturated catchment.

The Werribee River broke its banks and flooded Fisken Street, Grant Street and Woolpack Road. After the 1995 flood a levee was constructed on the north side of the Werribee River, which now extends from upstream of Grant Street to Fisken Street.

Werribee River flood levels at the Bacchus Marsh gauge

When the Bureau of Meteorology (BoM) issues Flood Warnings they include a prediction of the flood height at the Bacchus Marsh gauge located at Peppertree Park (see map).

While no two floods are the same, the following table can give you an indication of what you can expect at certain heights, including when your access may be cut off and when your property may be affected.

Current data for the Werribee River at the Bacchus Marsh gauge is available from Melbourne Water by searching in google for "Melbourne Water Bacchus Marsh River level".

5.75 m -	1891 flood level.
5.60 m -	MAJOR FLOOD LEVEL
	At major flood level, the Werribee River breaks its bank at Grant Street and flows into the Bacchus Marsh CBD. Major flood level (5.60m) is the height shown on map pags 2 and 3.
5.20 m –	MODERATE FLOOD LEVEL
	At moderate flood level, the Werribee River will break its southern bank at Grant Street, resulting in a significant overland flow through residential, commercial and farming areas.
5.19 m -	November 1995 flood level – Werribee River broke its bank, also local flooding in the Parwan Creek.
4.40 m -	MINOR FLOOD LEVEL
	At minor flood level, water breaks the banks of the Werribee River to the north and south at Fisken Street, inundating farm land.
3.70 m –	Grant Street likely to be flooded.
3.35 m –	October 1983 flood level – flooding along both the Werribee and Lerderderg Rivers.
3.28 m 🗕	September 1993 flood level.
2.85 m 🗕	Water across roads likely.

Flash flooding

Bacchus Marsh suffered flash flooding five times in 2010-2011 (February, March, and September 2010 and January and February 2011) following local heavy rain. In 2011 these floods caused extensive damage including:

- 5 homes inundated
- Businesses flooded (including B & Bs, take away shops and supermarkets)
- Damage to roads, bridges, sporting facilities and Council buildings
- Crop losses and damage to market gardens.

Areas which have been subject to flash flooding in the past include low-lying sections of:

- Bacchus Marsh Bacchus Marsh Road (Main Street), Dickson, Simpson and Young Streets, Hartley Court and Clifton Drive
- Darley Halletts Way, Gisborne Road, Hanson and Albert Street, McLeod and Cairns Drive, Darke Court and Augusta Place
- Maddingley Grant, Tavener, Griffith and Station Streets and Werribee Vale Road
- Merrimu Lerderderg Park and Wells Roads.

While no two floods are the same, floods like this or worse could occur again. Knowing what to do can save your life and help protect your property.

If you live in a low-lying area or close to a creek or river you may be at risk of flooding. Even if you are not directly affected, you may still need to detour around flooded areas, and power and sewage may be affected.



Werribee River gauge at Peppertree Park

About Flood Warnings

About Flood Warnings

What warnings mean

Warnings are issued by the Bureau of Meteorology (BoM) to tell people about possible flooding.

A **Flood Watch** means there is a developing weather pattern that might cause floods in one or two days.

A **Flood Warning** means flooding is about to happen or is already happening. There are minor, moderate and major flood warnings.

A Minor Flood Warning means floodwater can:

- Reach the top of the river banks.
- Come up through drains in nearby streets.
- Cover low-lying areas including riverside camping areas.
- Affect some low-lying caravan parks.
- Cover minor roads, tracks and low level bridges.
- Spread across land or go into buildings on some properties and farms.

A Moderate Flood Warning means floodwater can:

- Spill over river banks and spread across low-lying areas.
- Start to threaten buildings, roads, rail, power and other developments.
- Require evacuation in some areas.
- Cover main roads.

A Major Flood Warning means floodwater can:

- Cause widespread flooding.
- Threaten more houses and businesses.
- Cause properties and whole areas to be isolated by water.
- Disrupt major roads and transport routes.
- Require many evacuations.

The Victoria State Emergency Service (SES) will give information about how the floodwater might affect people and properties. This includes safety messages to remind you what to do during a flood.

Severe Thunderstorm Warnings

Thunderstorms are classified as severe, due to their 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 happens quickly. Bacchus Marsh residents should listen out for warnings with flash flooding and remember that flash flooding:

- Occurs so fast that it often arrives without warning. Intense or prolonged rainfall is your only indication of flooding.
- Results from heavy rainfall during short severe storms.

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.

Emergency Alert

SES may provide alerts to the Bacchus Marsh community through the Emergency Alert telephone warning system. All emergency service providers can use Emergency Alert to warn communities about dangerous situations by voice message to landline telephones or text message to mobile phones.

If you receive a warning, make sure that all family members, people at work and your neighbours are aware of the situation.

If you receive an Emergency Alert you should pay attention and act. It could mean life or death.

If you need help to understand a warning, ask a friend, neighbour or family member.

Warnings for Bacchus Marsh

For the Werribee River, flood warnings are issued by BoM. Flood Warnings provide predictions of flood size (minor, moderate or major), time and possible peaks of the Werribee River.

It is important to know how the predicted flood levels are likely to impact you as you may be affected before the peak (see page 3: Werribee River Flood Levels at the Bacchus Marsh Gauge).

Use this table to figure out when you need to start following your flood emergency plan.

For flash flooding, intense or prolonged rainfall is your only indication of flooding. Bacchus Marsh residents should watch and listen for severe weather or thunderstorm warnings relating to Bacchus Marsh or the Central weather district.

You can monitor rainfall on the BoM website at bom.gov.au

During flash flooding

When flash flooding is likely, if you decide to leave, do so **well before** flooding occurs. Leaving early before flooding occurs is always the safest option. You may decide to shelter with neighbours, family or friends in a safer area.

Evacuating through floodwater is very dangerous and you may be swept away. NEVER drive, ride or walk through floodwater.

If you do not leave early enough and become trapped by rising floodwater inside your home or business, stay inside your building and seek the highest part such as a second storey.

Stay there and call Triple Zero (000) if your emergency is life-threatening.

What to do in a flood



- Check if your home or business is subject to flooding. For more information, contact Moorabool Shire Council.
- Develop an emergency plan.
- Check if you could be cut off by floodwater.
- Know the safest way to go if you decide to leave your property and plan an alternative route.
- Check your insurance policies to ensure your equipment, property and business are covered for flood damage.
- Keep a list of emergency numbers near the telephone.
- Put together an emergency kit.
- Stay alert for weather warnings and heavy rainfall.

Your emergency kit

Every home and business should have a basic emergency kit. A basic emergency kit includes:



When a warning is issued, place extra items into your Emergency Kit, including:

- Mobile phone and charger
- Mementoes and valuables
- Prescriptions and medications
- Requirements for pets
- Strong shoes
- Clothing for at least three days.

Your emergency plan

Emergencies can happen at any time, with little warning. People who have planned and prepared for emergencies have reduced the impact and recovered faster.

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

Your emergency plan should identify:

- The types of emergencies that might affect you.
- How those emergencies might affect you.
- What you will do before, during and after an emergency.
- Where to get more information.
- Where you will go if you evacuate and the best way to go in different circumstances.
- A list of phone numbers you will need, including emergency services, your insurance company, friends and family.



Visit **ses.vic.gov.au** to obtain a copy of your Home Emergency Plan workbook

Evacuation

During a flood, Police, SES and other emergency service providers may advise you to evacuate to keep you safe. It is important that you follow this advice.

There are two types of evacuation notices that may be issued via your emergency broadcaster during a flood:

- Prepare to evacuate means you should act quickly and take immediate action to protect your life and property. Be ready to leave your property.
- Evacuate immediately you must leave immediately as there is a risk to lives. You may only have minutes to evacuate in a flash flooding situation.

Do not return to your home until you are sure it is safe to do so. You do not need to wait to be told to evacuate.

During and After a Flood



During a flood

When flooding has begun:

- <u>Never</u> drive, ride, swim or walk through floodwater.
- Remember that floodwater can be deeper than you think and can hide damaged roads and bridges.
- Never let your children play or swim in floodwater. It is dirty, dangerous and deadly.
- Tune in to your emergency broadcasters: ABC Local Radio, Commercial Radio, designated Community Radio Stations and SKY NEWS Television.
- In life-threatening emergencies, call Triple Zero (000).
- For SES emergency assistance during floods and storms call 132 500.
- Stay away from all waterways including drains and culverts.
- Stay away from fallen powerlines as electricity travels easily through water.
- Be aware that animals such as snakes, rats, spiders and other pests may be on the move during a flood. These animals can come into houses and other buildings or hide around sandbags.
- Keep in contact with neighbours.
- Be prepared to act quickly.

After a flood

Flood dangers do not end when the water begins to fall. To make sure you stay safe:

- Keep listening to local emergency broadcasters.
- Do not return home until you are sure that it is safe.

Once you return to your home:

- Investigate the structural safety of your building.
- Drink bottled water or boil all drinking water until advised that the water supply is safe.
- Throw away any food or medicines that may have been in contact with floodwater or affected by power outages.
- When entering a building, use a torch to light your way. Never use matches or cigarette lighters as there may be gas inside.
- Keep the electricity and gas off until checked and tested by a professional.
- Take photographs of all damage for insurance.
- Clean your home straight away to prevent disease.

How SES helps the community

The Victoria State Emergency Service (SES) is a volunteer based emergency service provider. Although SES volunteers attempt to reach everyone prior to or during an emergency, at times this is not possible, especially during flash flooding which occurs so quickly. Therefore it is advisable for you to be prepared for emergencies so that you can share responsibility for your own wellbeing during those times. In a flood, SES assistance may include:

- Giving flood advice
- Protecting essential services
- Helping to protect infrastructure
- Rescuing people from floodwater
- Advising of an evacuation

To assist your preparation, it is recommended that you obtain a copy of the SES Home Emergency Plan by visiting **ses.vic.gov.au**



Emergency Checklist

NOW: Flood preparation

Check if your insurance policy cover flooding.

Keep this list of emergency numbers near the telephone.

Put together an emergency kit and prepare a home or business emergency plan, see **ses.vic.gov.au.**

When you hear a Flood Watch or weather warning

- Listen to Severe Weather Warnings for flash flood.
- Listen to the radio and check the SES website for more 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.
- Leave early if you intend to evacuate.

When flooding may happen soon (heavy rainfall)

- 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. Don't forget to take pets and your medicine with you.
- Put household valuables and electrical items as high as possible.
- Turn off water, gas and electricity at the mains.
- Secure objects likely to float and cause damage.
 - If you are staying in a caravan or temporary dwelling, move to higher ground before flooding begins.

During the flood

- For SES emergency assistance, call 132 500.
- Do not drive, ride, swim or walk through floodwater. This is the main cause of death during floods.
- NEVER allow children to play in floodwater. This is the main cause of death during floods for children and young people.
- Stay away from drains, culverts and waterways as water can flow quickly and have strong currents.
- Stay well clear of fallen trees, powerlines and damaged buildings.

After the flood: recovery

- If your property has been flooded, check with Moorabool Shire Council for information and advice.
- Have all electrical and gas equipment professionally tested before use.

For more information visit:

ses.vic.gov.au facebook.com/vicses twitter.com/vicseswarnings

Emergency Contacts

Li Pi	i fe-threatening emergency plice Fire Ambulance	000	Tripl TTY	e Zero 106		
	ictoria State Emergency Service (SES or SES emergency assistance		132 500 ses.vic.gov.au			
-	ES information line perates during major floods or storms	1300 1300		2 737 : SES		
	icEmergency ictorian emergency warnings	emerge	ncy.vio	c.gov.au		
	ureau of Meteorology (BoM) eather information, forecasts, warnings		1300 659 217 bom.gov.au			
Ν	ational Relay Service (NRS)	relayse	relayservice.gov.au			
Tŀ	e deaf, hearing or speech impaired can call SES	or Triple Zero (00	Zero (000) using NRS:			
			DIAL THEN ASK FOR			
		1300 55		132 500		
	TTY / Voice users phone	13 36 77		132 500		
In	ternet Relay users log into		www.iprelay.com.au/call/ then enter: 132 500 or 000			
-	icRoads	13 11				
Road closures and hazard reporting service vicroads.vic.gov.au						
	Moorabool Shire Contact Details Phone: Email: Web:	(03) 5366 7100 info@moorabool.vic.gov.au moorabool.vic.gov.au				
	Weather District:	Central	ntral			
	Catchment:	Melbourne Wat	elbourne Water			
	Emergency Broadcasters Emergency broadcasters include ABC Local Radio, designated commercial radio stations across Victoria and SKY NEWS Television.		ABC Radio 774 AM SKY NEWS Television			
	Complete the following and keep this information handy close to the phone:					
	Your electricity supplier:					
	four electricity supplier.					
Your gas supplier:						
	Doctor:					
	Vet:					
	Insurance					
	Policy Number:					

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Phone Number: