



Shepparton, Mooroopna & Kialla

Local Flood Guide

Riverine flood information for the Goulburn River, Broken River & Seven Creeks.



For flood emergency assistance call
VICSES on 132 500



The Victoria State Emergency Service respectfully acknowledges Aboriginal and Torres Strait Islander people as the Traditional owners of the land throughout Victoria and acknowledges their ancestors and elders, past, present, and emerging.

Reviewed: 7 July 2023



Several waterways pose a **Riverine Flood** risk to Shepparton, Mooroopna & Kialla. **Flash flooding** can also happen in Greater Shepparton because the land is so flat. Very heavy rain means flash flooding can rise quickly, leaving water sitting over roads and paths for hours before it can drain away.

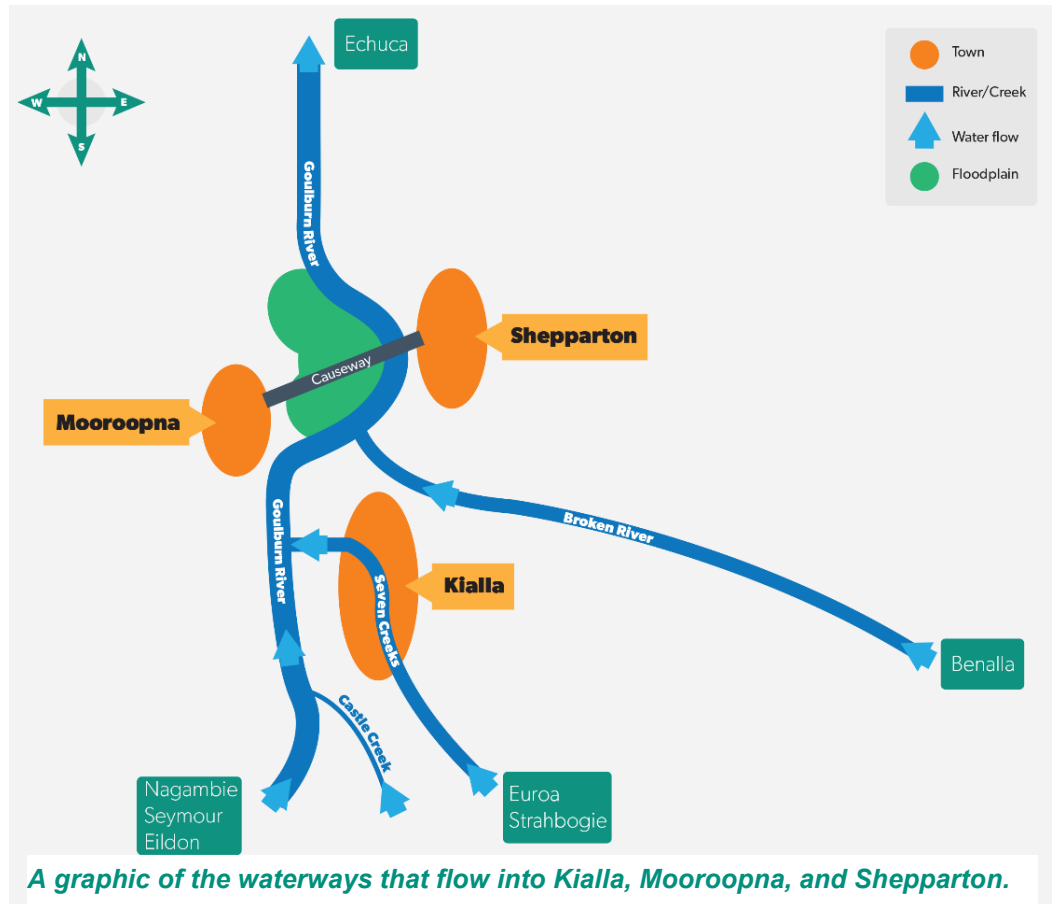
The Goulburn River, or Gaiyila in Yorta Yorta language, flows between Shepparton and Mooroopna from the Australian Alps through Lake Eildon, Seymour, and Nagambie. Three other waterways join the Goulburn River nearby and can impact flood behaviour.

1. The Broken River comes from Benalla and joins the Goulburn near Shepparton Botanic Gardens. The Broken River is the border between Shepparton and Kialla.

2. The Seven Creeks flows into the Goulburn River at the bottom of Riverview Drive in Kialla. Seven Creeks brings water from Euroa and the Strathbogie Ranges.

3. Castle Creek meets the Goulburn at Arcadia, also from the Strathbogie Ranges.

When multiple waterways meet like this flooding impacts can change depending on which river or creek floods the most, if they flood all at once, and which peak first.



A graphic of the waterways that flow into Kialla, Mooroopna, and Shepparton.

Flood Facts:

How dangerous a flood is, how long it lasts, how high it gets and where floodwater goes depends on:

- How much rain falls and how fast rain falls.
- How high or low the river is when it rains.
- How wet or dry the land is when it rains.
- Snow melting on the Australian Alps.
- Levees, spillways, pumps, basins, and drains.
- Water releases or spills from dams and weirs.
- Building and development changing the landscape.
- Vegetation, fire affected land and **climate change**.

Every flood event is different.

Indigenous Australians keep oral history of regular flooding in forests and wetlands of the Goulburn region, an essential part of the health of our environment. Written flood records date back to the 1800s, damaging people, infrastructure, business, and livestock.

The Peter Ross-Edwards Causeway that joins Mooroopna and Shepparton by road spans the culturally significant Goulburn River flats, where the Rumbalara Aboriginal Corporation began in the 1940s after the Cumeragunja walk-off in 1939.

Learn more at riverconnect.com.au

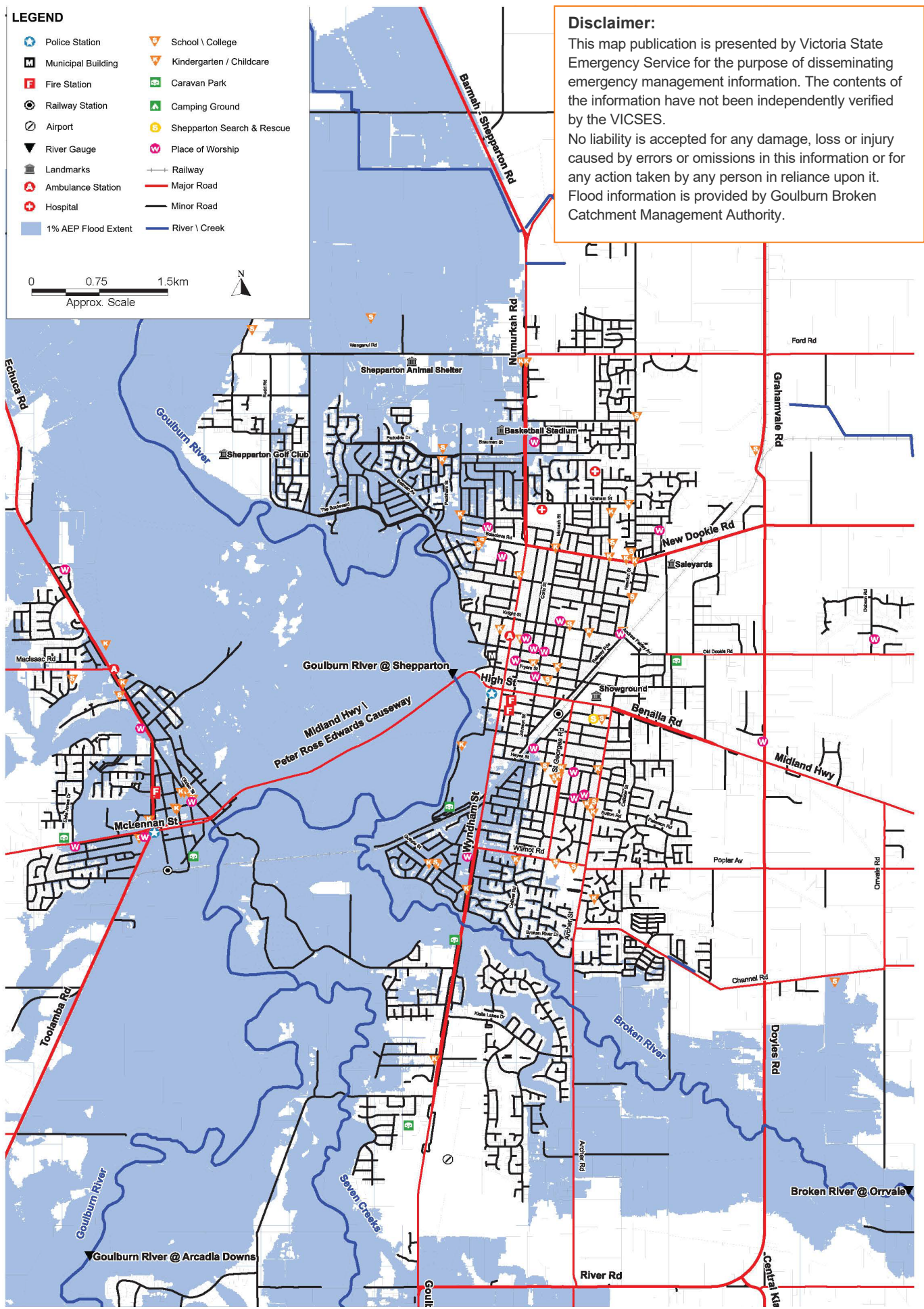


LEGEND

- Police Station
- Municipal Building
- Fire Station
- Railway Station
- Airport
- River Gauge
- Landmarks
- Ambulance Station
- Hospital
- 1% AEP Flood Extent
- School \ College
- Kindergarten / Childcare
- Caravan Park
- Camping Ground
- Shepparton Search & Rescue
- Place of Worship
- Railway
- Major Road
- Minor Road
- River \ Creek

0 0.75 1.5km
Approx. Scale

Disclaimer:
This map publication is presented by Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information have not been independently verified by the VICSES.
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 Goulburn Broken Catchment Management Authority.





Are you at risk of flood?

The map on page 3 shows areas in Shepparton, Mooroopna and Kialla that may be affected by riverine flooding at the 1% flood height. A 1% flood means there is a 1 in 100 chance (or greater) of this type of flood happening every year.

Find your home, school, workplace, nearby businesses, and the roads you use to understand how a flood might impact your daily life. Keep this guide, connect with your neighbours, community leaders and other locals to learn about past floods.

Even if you don't live in a low-lying area, you may be impacted by disruptions to essential services, including phone, internet, power, and sewerage. Knowing what to do can save your life and help protect you, your family, and your property.

River Dominance

Every flood is different. This is especially true in Shepparton, Mooroopna, and Kialla because of the many different rivers and creeks. If one river or creek is flooding, but the others are not, a flood will happen differently than if all the rivers and creeks flooded at the same time. We call this **river dominance**.

A flood event could be **Goulburn River Dominant** or **Broken River Dominant** or **Neutral** (all flooding).

Goulburn Broken community Flood Intelligence Portal

A key role of the Goulburn Broken Catchment Management Authority (GBCMA) is to find out how far a flood might reach and how high floodwater might rise. Councils also have a responsibility to consider land subject to flooding in planning, zoning, and development approvals. Sharing flood risk information with communities is key to improving flood resilience. GBCMA, Greater Shepparton City and other nearby councils have funded this web portal where community can:

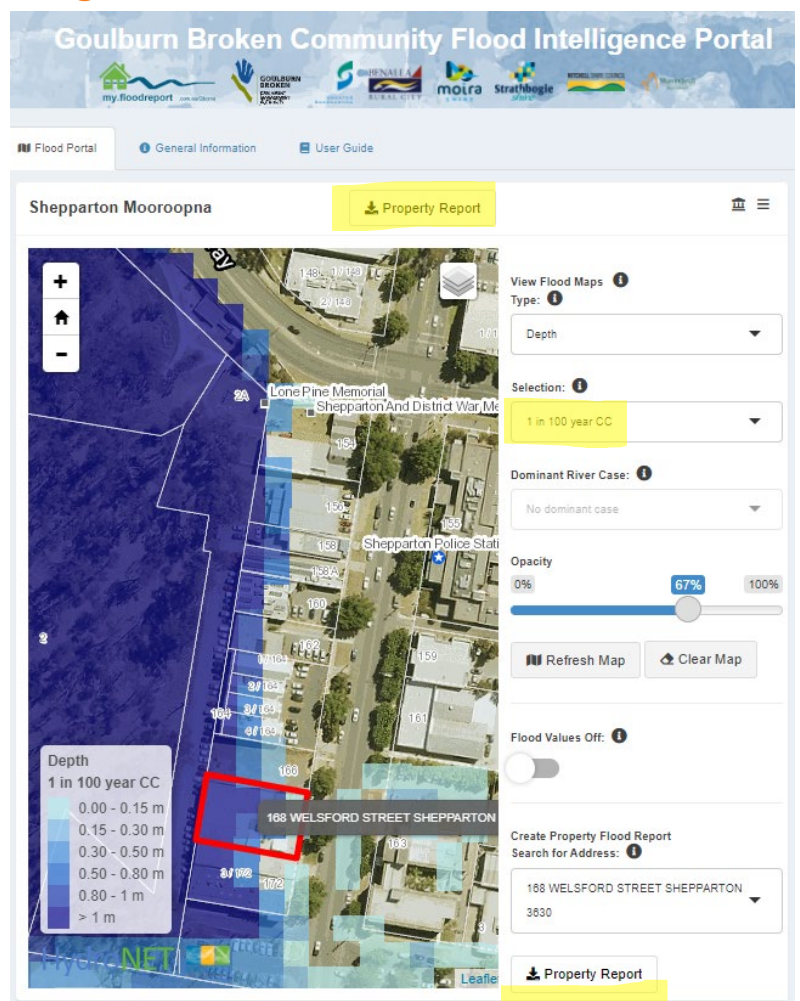
- Search for a property of interest.
- Download **Property Flood Reports** to help you manage your flood risk.
- View **Flood Maps** based on:

Flood Data and Mapping relative to flood gauge heights to assist with preparedness and useful with height predictions in flood warnings and;

Design floods like a "1% flood" which means there is a 1 in 100 chance (or greater) of this type of flood happening every year.

To get started, go to:

my.floodreport.com.au/gbcma



Disclaimer: This information does not replace the need for planning permits under the Municipal Planning Schemes, nor written advice from Catchment Management Authorities. Use of this web portal is subject to terms and conditions, which can be read and downloaded in the portal. By using this web portal, you are agreeing with these terms and conditions.



Flood History

Serious floods occurred in 2022, 2010, 1993, 1974, 1916 and 1870.

- 2010 - **Neutral** flood.

The Goulburn River, Broken River and Seven Creeks all peaked at **major** flood levels.

13 homes and **31** other buildings were flooded. **620** homes were isolated and more than **60** people registered for relief.

- 1974 - Goulburn River dominant flood.

- 1993 - Broken River dominant flood.

Flood Mitigation

At least 70 flood retardation basins exist to hold large volumes of floodwater, including in new subdivisions and flood pumps are positioned at strategic locations to help protect urban areas.

A series of levees help to contain Goulburn River floodwater from Knight Street, Shepparton to Furphy Avenue, Kialla, but no levee is fail-proof.

Levees are built to protect infrastructure, not to save lives.

Preparing your Home for Flooding

There are practical steps you can take to reduce damage to your home if you expect to be flooded.

If you live or work in a high-risk flood area, consider keeping dry sand and about 25-30 bags for your own use in an emergency. This is about the right number of sandbags to protect an average home.

Watch the 60 second Bag It, Block It, Lift It & Leave video: <https://youtu.be/llmy2Lwv9wY>

Bag it

- Sandbag doorways and low-lying windows to slow floodwater entering your home.
- Learn how on the last page or go to <https://www.ses.vic.gov.au/plan-and-stay-safe/sandbag-guide>

Block it

- Block toilets, bath and drains using a sandbag within a plastic rubbish bag, if you have one.

Lift it

- Lift your irreplaceable and valuable items up high.

Leave

- Turn off power, gas, and water at the mains and go to higher ground away from the flooded area, like the home of family or friends or an emergency relief centre.



October 2022 Goulburn Dominant Flood

- Over 235,000 sandbags were collected from a single site at Shepparton Showgrounds.
- 800 evacuees housed on a single night.
- Culturally significant sites were flooded.
- Peter Ross Edwards Causeway closed.
- Hundreds of rescues were performed by emergency services and defence forces.

6000+ impact assessments found:

- 900 properties damaged by floodwater.
- 80 properties totally or partially destroyed.

**Floods like this or worse
can happen again.**





Local Flood Gauges – Check How High

When the Bureau of Meteorology (BOM) issues Flood Warnings they may include current or predicted flood heights relating to the following 4 local river gauges below. While no two floods are the same, the below gauge tables give you an idea of what to expect at certain heights, when access may be cut off or local areas may be impacted. You can monitor river gauge levels on the BOM website at:

www.bom.gov.au/vic/flood/rain_river.shtml



1. Goulburn River gauge at Shepparton
2. Goulburn River gauge at Arcadia Downs
3. Broken River gauge at Orrvale
4. Seven Creeks gauge at Kialla West

1. Goulburn River flood levels at the Shepparton gauge

This gauge relates to Mooroopna township, Shepparton central business district, Kialla, Shepparton North and surrounding rural areas. Remember – **every flood is different.**

Height (metres)	Impacts
12.30 m	1% Flood level - as shown on page 3 map.
12.25 m	Estimated 1916 flood level.
12.03 m 12.10m**	2022 flood level – Goulburn Dominant flood with widespread impacts.
12.09 m	1974 flood level – a Goulburn River dominant flood. Mooroopna was isolated.
12.00 m	Peter Ross-Edwards Causeway between Mooroopna and Shepparton closed.
11.71 m	1993 flood level.
11.66 m	Princess Park levee overflows.
11.18 m	Victoria Lake levee overflows.
11.10 m	Balmoral Estate levee overflows.
11.09 m	2010 flood level. 620 homes isolated. 13 homes and 31 other buildings flooded.
11.00 m	Major flood level
10.98 m	Macquire Reserve levee overflows to near Daintons Bridge.
10.70 m	Moderate flood level
9.96 m	2012 flood level.
9.82 m	2011 flood level.
9.50 m	Minor flood level
8.75 m	Watt Road and Raftery Road start to flood.

**October 2022
Goulburn Dominant Flood**

**The 2022 flood was bigger than the 1974 event, but the location of the river gauge has changed since 1974, so the final heights are different.

If measured at the same place as the old gauge, the 2022 flood was 1cm higher than 1974, peaking at **12.10m**.



Photo: Steph Woodhall of Shepparton- 2022



2. Goulburn River flood levels at Arcadia

This gauge is located upstream of where the Broken River And Seven Creeks flow into the Goulburn River.

Height (metres)	Impacts
12.14 m	2022 flood level Goulburn Dominant flood.
12.10 m	1974 flood level. Goulburn River dominant flood. Mooroopna was isolated.
10.81 m	2010 flood level.
10.68 m	1981 flood level.
10.70 m	Major flood level
10.40 m	Moderate flood level
10.18 m	2011 flood level.
9.00 m	Minor flood level
	2012 flood level (below minor).
	1993 flood level (below minor).

3. Broken River flood levels at Orrvale

This gauge relates to areas along the Broken River near Orrvale, Kialla East, and Kialla North and areas north of the Broken River in Shepparton.

Height (metres)	Impacts
8.44 m	1993 flood level. Major Broken River dominant flood.
8.34 m	2022 flood level Goulburn Dominant flood.
8.33 m	1974 flood level.
8.21 m	2010 flood level.
7.90 m	Major flood level
7.86 m	1996 flood level.
7.40 m	Gordon Drive, Kialla and bridge flooded.
7.30 m	Archer St, Kialla starts to flood.
7.20 m	Kialla Lakes Drive starts to flood.
7.20 m	Moderate flood level
7.15 m	Lake Kialla overflows into Gordon Drive
7.01 m	2012 flood level.
6.80 m	Minor flood level
6.01 m	2011 flood level.

4. Seven Creeks flood levels at Kialla West

This gauge relates to Kialla, Kialla Lakes, Kialla West, Mooroopna, Shepparton South along Seven Creeks and Honeysuckle Creek.

Height (metres)	Impacts
8.23 m	1993 flood level.
7.85 m	1974 flood level.
7.26 m	2022 flood level Goulburn Dominant flood.
6.60 m	2010 flood level.
6.60 m	Major flood level
6.50 m	Balmoral Street, Kialla starts to flood.
6.02 m	2012 and 1996 flood levels.
5.00 m	Moderate flood level Raftery Road, Kialla flooded between the bridge and Edgewater Road. Arcadia Downs traffic detoured.
4.50 m	Minor flood level Mitchell Road floods between Goulburn Valley Highway and Archer Street.






Gibbons Road
Photo: Steph Woodhall of Shepparton- 2022



Staying Informed

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. 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 the Bureau of Meteorology (BOM).

Severe Weather Warnings

These warnings are issued to the community by the Bureau of Meteorology (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 [BOM website](#) and warnings through [VicEmergency](#).



Photo: Steph Woodhall of Shepparton- 2022

Remember, you may not receive any official warning, so never wait for a warning to act.

Emergency assistance may not be immediately available.

Be aware of what is happening around you to stay safe.



Australian Warning System on VicEmergency

SES issues warnings to provide you with information to help you make decisions to protect yourself and your family. Warning levels are based on severity, local conditions, and the likelihood of community impact. Flood warnings are published to the VicEmergency website, smartphone app and announced on nominated emergency radio broadcasters like **ABC 97.7FM**, **3SR 95.3 FM** & **STAR 96.9FM**.

To hear warnings in English, call the VicEmergency hotline **1800 226 226**.



For warnings in other languages, call the national Translating and Interpreting Service (TIS) on **131 450** and ask for the VicEmergency hotline.

WARNING LEVELS

	<p>EMERGENCY WARNING</p> <p>You are in imminent danger and need to take action now. You will be impacted. Major flood warnings usually fits this category. Evacuation advice may be included.</p>
	<p>WATCH AND ACT</p> <p>An emergency is developing nearby. You need to take action now to protect yourself and others. Moderate flood warnings usually fits this category. Evacuation advice may be included.</p>
	<p>ADVICE</p> <p>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.</p>

EVACUATION

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

	<p>PREPARE TO EVACUATE/ EVACUATE IMMEDIATELY</p> <p>An evacuation is recommended or procedures are in place to evacuate.</p>
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ADDITIONAL MESSAGES

	<p>COMMUNITY INFORMATION</p> <p>Can be used as a notification that an incident has occurred but there is no threat to community; or a newsletter with updates for communities affected by an emergency.</p>
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	<p>EMERGENCY ALERT</p> <p>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.</p>
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Current warnings VicEmergency)	emergency.vic.gov.au	1800 226 226
Bureau of Meteorology (BOM)	bom.gov.au/vic/warnings	1300 659 217
VicRoads Traffic & Regional Roads	traffic.vicroads.vic.gov.au	133 778

Emergency Broadcasters

ABC 97.7 FM
3SR 95.3 FM
STAR 96.9 FM
SKY NEWS TV

**Life-threatening
Emergencies
Triple Zero**

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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

Catchment Management Authority	gbcma.vic.gov.au	(03) 5820 1100
Greater Shepparton City Council	greatershepparton.com.au	(03) 5832 9700



Emergency Kit

Every home and business should have a basic emergency kit with supplies for 3 days. Watch the emergency kit video at: <https://youtu.be/XgyLnKDMkNo> Check your kit often and replace out of date items.



When a warning is issued, have ready to use or pack into the kit:



Write YOUR important items below.
Tick items as you pack them into your kit.

Consider your family's needs eg. babies, elderly, or those living with disability.			
Photos			
Family keepsakes			
Valuables		Other	
Other		Other	
Other		Other	
Other		Other	

Your Emergency Plan



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

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 redcross.org.au/prepare to start creating your plan.

Flood checklist

Get ready, have a plan, know what to do...

Taking the time to plan for emergencies helps you think more clearly, have a greater sense of control, and make better decisions when an emergency happens.

☐ Make sure you'll receive warnings and emergency information in Victoria

- Install the VicEmergency App and create a Watch Zone
- Use [emergency.vic.gov.au](https://www.emergency.vic.gov.au): for all hazards, all emergencies
- Note the VicEmergency Hotline: 1800 226 226
- Note your local Emergency Broadcaster e.g. ABC Radio 97.7FM/106.5FM

☐ Find local flood information

- Find Local Flood Guides for most flood prone communities at ses.vic.gov.au/get-ready
- Connect with neighbours, other locals, or your local SES Unit to learn about past floods.
- Contact your Catchment Management Authority (CMA) for localised flood information floodvictoria.vic.gov.au/prepare-prevent/risks (Select from map of CMAs)

☐ Plan and Prepare

- Install the Red Cross Get Prepared Smart phone app and follow the steps or complete the Australian Red Cross RediPlan booklet at redcross.org.au/prepare
- Keep an emergency kit – with enough for 3 days in an emergency.
- Food, water, protective gloves, masks, medications and prescriptions, first aid and personal hygiene items, a waterproof torch, toilet paper, chargers, battery powered radio, batteries, reading glasses, essentials for babies and pets, spare clothing, and comfort items, especially for children and people with a disability.
- COVID-Normal* - Don't forget sanitiser, soap and face coverings.

☐ Take action to reduce impacts at your property

- Keep gutters and drains clear of debris, outdoor furniture, toys etc.
- Check your building and contents insurance. What type of flooding does it cover?
- Put your most valuable possessions up high, above possible floodwater height.
- Backup important files and documents to a USB kept elsewhere, or to cloud storage.
- Identify higher ground on your property or further away from the danger area.
- Learn about sandbagging at ses.vic.gov.au/get-ready
- Consider buying sand and sandbags at home ahead of time, especially if you live in a flood prone area.

☐ When a flood emergency happens

- Monitor VicEmergency warnings and information.
- Never drive through floodwater – this is the No.1 killer in floods. It takes just 15cm of floodwater to float a small car.
- Watch what is happening around you and activate your plan.
- **Bag it, block it, lift it, and leave**
- Take your emergency kit and identification e.g.. Drivers licence, passport
- If you are impacted, register at the Relief Centre or with your local council, to get the help you need.
- Monitor VicEmergency for when it's safe to return and for Recovery information.



Download the VicEmergency app

Visit: [emergency.vic.gov.au/prepare](https://www.emergency.vic.gov.au/prepare)

Or download the app from:



Home emergency kit



Emergency plan



Radio



Torch



Spare batteries



Documents & records



First aid kit



Long life food



Safe drinking water



Gloves



Emergency kit

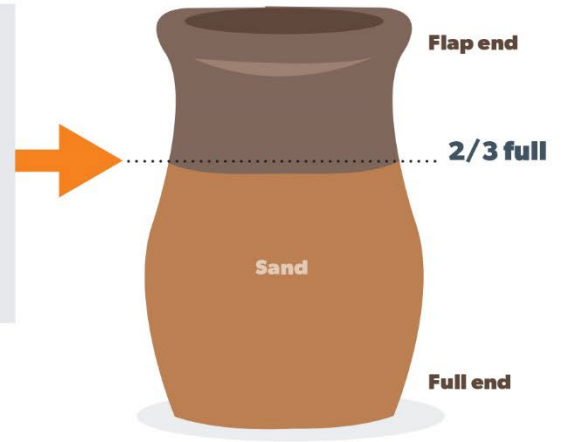


Sandbagging

Sandbags won't stop the water completely, but can reduce the amount of water entering your home.

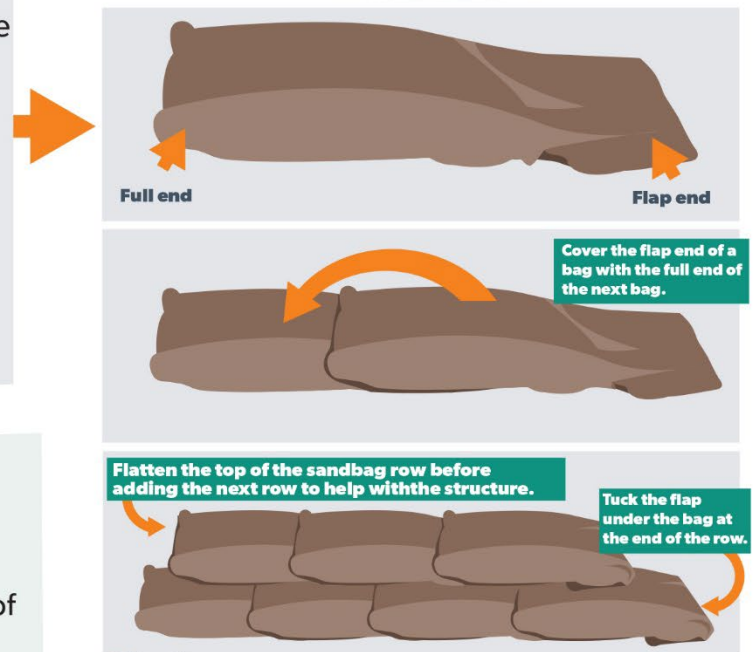
How do I fill a sandbag?

- Only use sand to fill hessian bags. Do not use dirt.
- Only fill sandbag two-thirds full.
- Do not over fill the sandbag as it will be too heavy to carry.
- Do not tie the top of the sandbag.
- Take care when filling and lifting the sandbag, to avoid injury.



How do I lay sandbags?

- Lay sandbags like brickwork. Stagger rows so that the joins do not line up.
- Start at one end and work to the other end.
- Ensure the unfilled part of the bag is covered by the next bag.
- Tuck flap under the bag at the end of the row.
- If the sandbag wall is going to be more than five (5) bags high, you will need to lay two (2) rows wide.

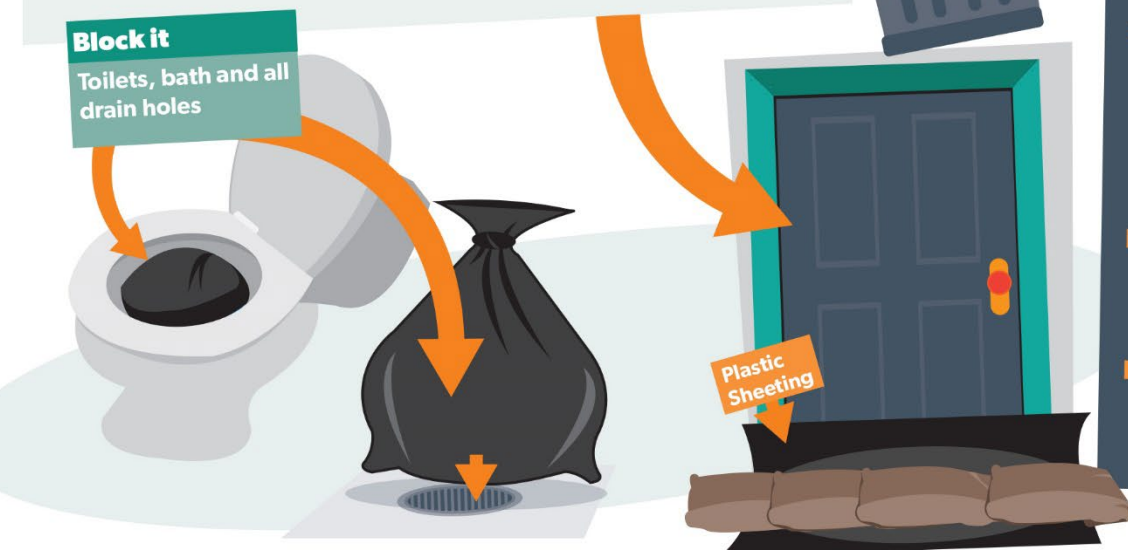


Where do I place the sandbags?

- Place sandbags in plastic bags to cover drainage holes in home (e.g. showers, toilets, sinks) to stop back flow of water.
- Place a small wall across doorways, at least the height of the expected water level. Be careful not to trap yourself inside.
- If available, plastic sheeting may be used under sandbags to reduce the seepage.

Block it

Toilets, bath and all drain holes



What do I do once I have finished with the sandbags?

- Sturdy gloves should be worn when handling wet sandbags as they can contain chemicals, waste and diseases.
- Sandbags that have been in contact with floodwater need to be thrown away.
- Contact your local council to find out how to dispose of your sandbags safely.