



Culgoa

Local Flood Guide

Riverine information for Tyrrell Creek at Culgoa



For flood emergency assistance call
VICSES on **132 500**





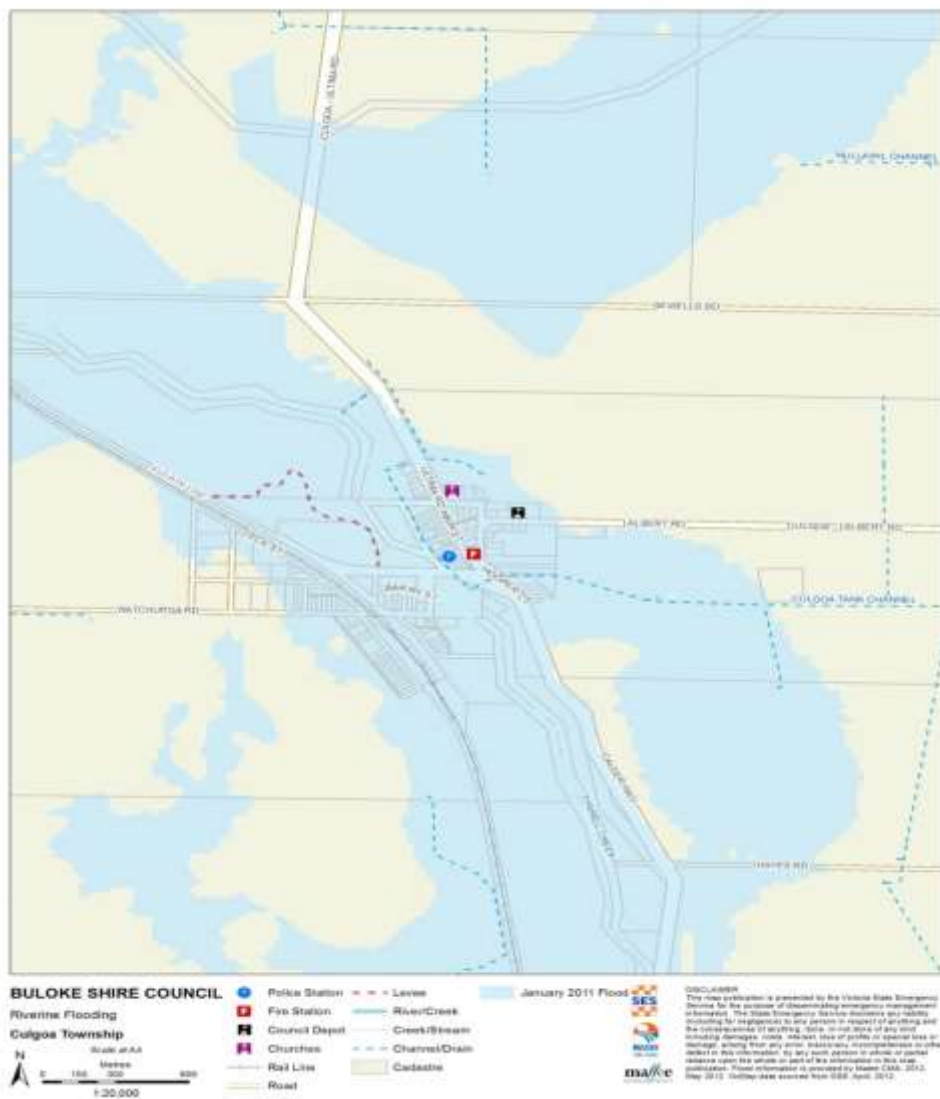
Culgoa

The township of Culgoa is located in north western Victoria on the Calder Highway, the closest major township is Swan Hill, 60 km to the north-east. Culgoa is located within the Buloke Shire Council and Mallee Catchment Management Authority areas.

Culgoa is located on Tyrrell Creek, a distributary of the Avoca River. Tyrrell Creek off-takes from the Avoca River downstream of Charlton and continues through to Lake Tyrrell. The waterway is ephemeral only flowing after significant rainfall or Avoca River floods.

On the Avoca River downstream of the Tyrrell Creek off-take, Lalbert and Back Creeks also distribute flood water to the north

The following map shows the 2011 flooding in Culgoa which measured 79 metres on the Tyrrell Creek gauge at Warne.



Disclaimer

This map publication is presented by Victoria State Emergency Service for the purpose of disseminating emergency management information. The contents of the information has 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 risk information is provided by Mallee Catchment Management Authority.



Are you at risk of flood?

The Avoca River is within the North Central Catchment Management Authority management area. The Avoca River, Lalbert, Back and Tyrrell Creeks all received significant flows during January 2011. These flows caused flooding in numerous regional communities across Victoria including Culgoa.



Generally, the Tyrrell Creek is reported to flow every 3-4 years. The waterway experiences long dry periods with local residents reporting no flow between the late 1930's until the flood observed across the state in 1956. Anecdotally, Tyrrell Creek witnessed flows in 1960, 1964, 1968, 1973, 1974, 1975, 1988, 1992, 1995/96 with no flows observed until the January 2011 event and 2016.

Did you know?

During January 2011 Culgoa received two flood peaks, the first generated by Tyrrell Creek's catchment area, the second a distributary flow from the Avoca River.

The township of Culgoa has a much shorter warning time for the first flow peak in Tyrrell Creek than the second.

However, the second peak is most likely to cause significant inundation of private and public land. The warning time for a flow distributed to Culgoa from the Avoca River is significant allowing members of the community and emergency services to be prepared for a flood event. There is also a strong indicator of potential future flooding with the flooding of Charlton on the Avoca River providing an indicator that flooding may impact Culgoa.



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

Small flows can be generated in Tyrrell Creek from rainfall within the Tyrrell Creek catchment. These flow events are generated by moderate rainfall events with flow in the Avoca River not at a sufficient height to distribute water to Tyrrell Creek.

A large flow in Tyrrell Creek will most likely be generated by a significant rainfall event in the Avoca River catchment, which will likely fall on the Tyrrell Creek catchment also. The rainfall falling on the Tyrrell Creek catchment will likely generate an initial smaller peak flow in Tyrrell Creek, followed by another peak from the Avoca River distributary flows. If the flood event in the Avoca River is of sufficient magnitude this second peak in Tyrrell Creek resulting from the distributary flows is likely to be the largest. These two flow peaks are unlikely to occur concurrently in Culgoa due to difference in time it is expected to take for Tyrrell Creek catchment runoff to reach Culgoa and Avoca River catchment runoff to reach the Tyrrell Creek off-take and then flow to Culgoa.

This also means that when the Avoca River distributary flow is passing through Tyrrell Creek the waterway is likely already experiencing some flow from the Tyrrell Creek catchment. All the creek pools will have been filled and any initial infiltration into the channel bed has already occurred. This increases the proportion of the Avoca River distributary flow which reaches Culgoa and significantly reduces the potential attenuation along Tyrrell Creek. So the second peak may travel much faster than the first peak.

During the September 2016 Flood event Tyrrell Creek which was similar to the September 2010 Flood event

- Impacted low lying rural land with no impact to residential properties
- Calder Highway at Warne overtopped

If flooding affects Charlton, then it typically affects Culgoa 40-120 hours later.



Tyrrell Creek flood levels at the Warne Gauge Calder Highway

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

Manual Water Level gauge Tyrrell Creek Height at Warne (AHD)	Impact/level
79.5m	September 2010 - Significant inundation of rural property, 3 properties in Culgoa inundated above floor level, a number of properties isolated. -Main Street partially inundated.
79.24m	22 September 2016 - Impacting a cabin at Culgoa Watchupga Road under threat from over floor flooding - Sheds at Main Street becomes flooded over floor (gravel)
79m	15 January 2011 - impact to low lying rural land (map on page 2)
78.5m	16 January 2010 – impact to low lying rural land Calder Highway overtopped at Warne and Culgoa

Staying Informed and Further Information

- Current warnings (VicEmergency) emergency.vic.gov.au 1800 226 226
- Bureau of Meteorology (BoM) bom.gov.au/vic/warnings 1300 659 217
- VicRoads Traffic traffic.vicroads.vic.gov.au
- Emergency Broadcasters
 ABC 594 AM Horsham
 SKY NEWS Television
 ABC Mildura-Swan Hill 102.1FM
- 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
- Mallee Catchment Management Authority malleecma.com.au (03) 5051 4377
- Buloke Shire Council buloke.vic.gov.au 1300 520 520
- National Relay Service (NRS) relayservice.gov.au

**Life-threatening
Emergency
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Flood warnings and emergency checklist

Bureau of Meteorology Warnings

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. 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 [BoM website](#) and warnings through [VicEmergency](#).



VICSES Warnings

VICSES utilises the VicEmergency app, website and hotline to distribute flood warnings and emergency information in Victoria. You can also access this information through our 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 of community impact.

WARNING LEVELS

	<p>EMERGENCY WARNING</p> <p>You are in imminent danger and need to take action immediately. You will be impacted. A Major flood warning usually fits into this category.</p>
	<p>WARNING (WATCH AND ACT)</p> <p>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.</p>
	<p>ADVICE</p> <p>An incident is occurring or has occurred in the area. Access information and monitor conditions. Can also be used as a notification that activity in the area has subsided and is no longer a danger to you. A Minor flood warning or Flood Watch usually fits into this category.</p>

ADDITIONAL MESSAGES

	<p>PREPARE TO EVACUATE/ EVACUATE NOW</p> <p>An evacuation is recommended or procedures are in place to evacuate.</p>
	<p>COMMUNITY INFORMATION</p> <p>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.</p>
	<p>EMERGENCY ALERT</p> <p>During some emergencies, communities may be alerted by the sounding of a local siren, or by sending an SMS to mobile phones or a voice message to landlines.</p>

Your emergency plan

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

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



- 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 Kit

Visit [Emergency Toolkit](#) for more information



Every home and business should have a basic emergency kit with a supply of 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 here. Tick items as you pack them into your kit

- | Special needs (eg, babies, Elderly)
- | 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 redcross.org.au/prepare

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 bom.vic.gov.au and warnings through emergency.vic.gov.au.
- 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 Recovery- emergency.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.