



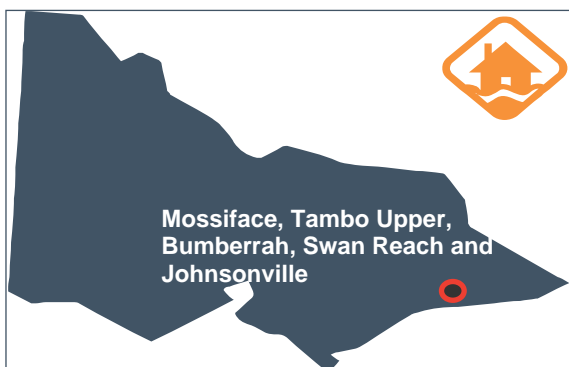
Mossiface through to Swan Reach

Local Flood Guide

Riverine flood information for the Tambo River.



Stephenson Rd Bridge, viewing north, Tambo Upper, (DELWP, June 2012)



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



EAST GIPPSLAND
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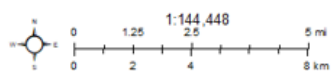
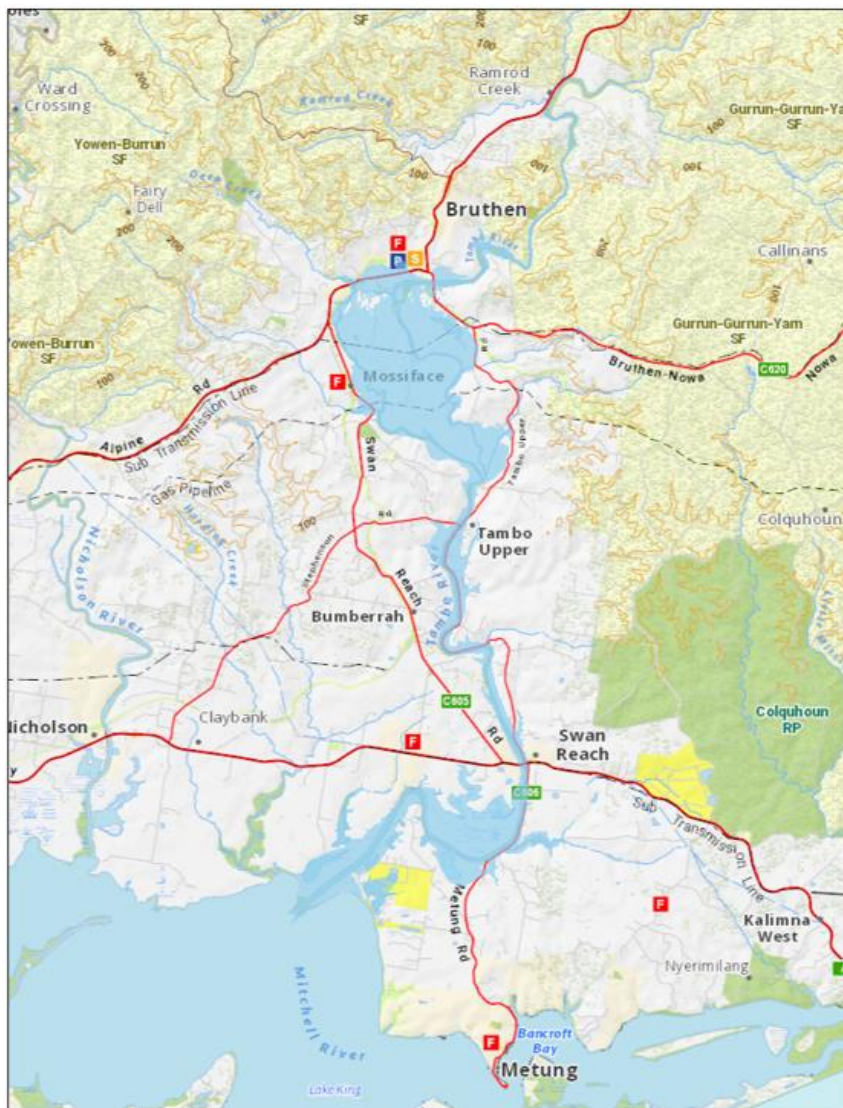




The Local Area

The Tambo River runs downstream from Bruthen, passing through several small townships including Mossiface, Tambo Upper, Bumberrah, Swan Reach and Johnsonville/Tambo Estate, before flowing into Gippsland Lakes at Lake King, west of Metung. Many properties and roads are at risk of being inundated from high floodwaters, particularly those low on the floodplain.

When Tambo River floods, water quickly begins to pool in the floodplain south of Bruthen and the depth of floodwater increases as water builds up downstream. Relatively small floods result in water spilling into the old Tambo River watercourse, which reconnects to Tambo River just over a kilometre north of Fred Albert Bridge (Stephenson Road, Tambo Upper).



Tambo River Water Technology 2016 Extent - 1 in 100 years ARI

Are you at risk of flood?

The maps on the following pages show expected flooding for areas around Mossiface, Tambo Upper, Bumberrah, Swan Reach and Johnsonville, for a 1% flood event.

This means there is a 1% chance of a flood of this size occurring in any given year. It can also be noted as a 1 in 100-year flood event.

When water levels reach 11.9 metres on the gauge downstream of Ramrod Creek, this would be the equivalent to a 1% flood event, like the flood which occurred in June 1998 (12.0 metres).

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 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



South of Bruthen, flooding can occur across the Bruthen Flats in the Mossface area. The Mossface - Swan Reach Road is often cut at Mossface and Tambo Upper Road may be cut in various places along its length.

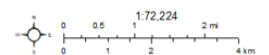
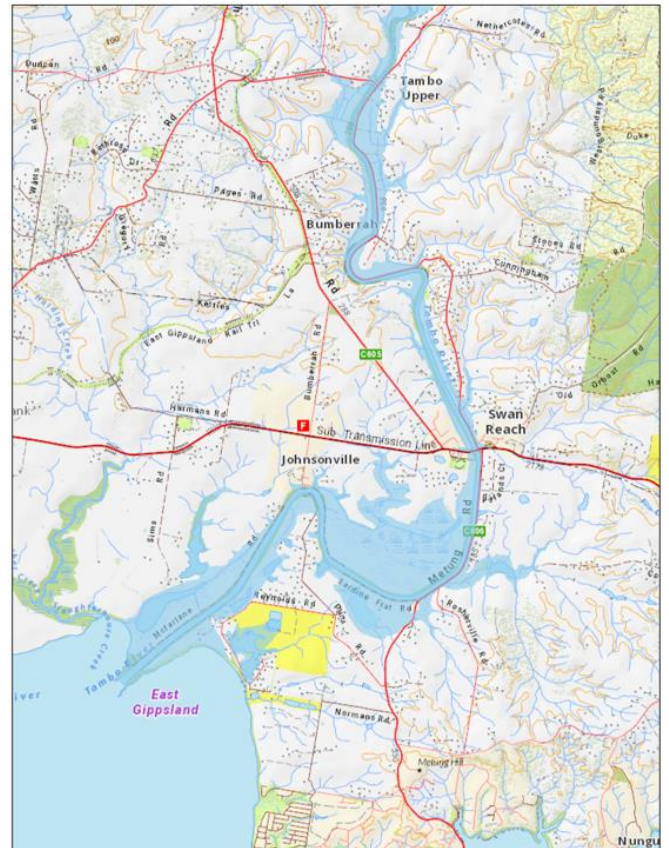
Several sections along Tambo Upper Road and Stephenson Road may be impacted during moderate and major floods and these sections become closed. Old Orbost Road may be cut at Tambo Upper Road. Stephenson Road may be cut where it connects with Tambo Upper Rd at Fred Albert Bridge.

Road closures do not pose a threat of isolation to the main township areas as alternate routes are accessible, except in extreme circumstances. However rural properties with access roads to main routes may be isolated (e.g. along Tambo Upper Road).

When considering the impacts of a potential flood, those living on rural properties should allow plenty of time to move stock and machinery located on the floodplain.

Hay bales should be stored on high ground to avoid them being washed away by flood waters.

Access across the river via private bridges should be made with extreme caution during times of flood and if the bridge deck is inundated, crossing the bridge should be avoided.



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Did you know?

The lower Tambo floodplain has a history of flooding, including in 1998, 2007, 2012 and 2016.

June 1998 is the largest flood on record. It was recorded as a major flood, 12.0 meters at the Tambo River gauge, downstream of Ramrod Creek. Flooding could occur again in and around Tambo River with similar or greater consequences including:

- Roads closed
- Rural properties becoming isolated
- Loss off livestock
- Fallen trees and limbs
- Landslips
- River channel erosion



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.



Bank erosion and remaining pools at the Swan Reach Hotel, indicating the height and extent of the floodwaters (DELWP, 1998)

Rain can be falling heavily in Tambo River catchment without knowledge of residents in downstream townships such as Bruthen, Wiseleigh, Mossiface, Tambo Upper, Swan Reach and Johnsonville.

Although it may be raining in lower Tambo district, localised rain may not have an impact on whether the Tambo River will flood. It is important to be vigilant of weather conditions in the upper catchment area to ensure appropriate preparation for potential flood events.



Tambo River flood levels downstream of Ramrod Creek

When the Bureau of Meteorology (BoM) issues flood warnings they include a prediction of flood height at the streamflow gauge which is downstream from where Ramrod Creek meets Tambo River, located just off Evans Track.

While no two floods are the same, the table below can give you an indication of what you could expect in your area when water levels reach certain heights at this gauge; including when your access may be cut off and when your property may be affected.

The level of a flood event is shown on the left column, followed by the Ramrod Creek gauge heights.

It is important to monitor local gauges to guide your response to potential flood impacts. This can be done by going to http://www.bom.gov.au/vic/flood/east_gippsland.shtml and hovering your mouse over grey circles located on the map around Bruthen to select the correct gauge.

Impacts to property, buildings, roads and features of interest, that may arise from various flood levels.

Flood Event	Height (metres)	Impact/level
Minor	4.1	<p>Low-lying areas next to watercourses are inundated. Minor roads may be closed and low-level bridges submerged. Removal of stock and equipment may be required.</p> <ul style="list-style-type: none"> • 5 buildings northwest of Metung near the Tambo mouth may be impacted by floodwaters (Reynolds Road / Tambo Boulevard). • Curtis Lane likely inundated in the lower Mossiface floodplain. • Several properties along Tambo Upper Road may be isolated as access to roads/driveways may be inundated at low points (in the area between McMeekins Road and Stephenson Road intersections). • If flood waters are expected to rise, lengthening of mooring lines of boats located at jetties throughout the Tambo River may be required.
Moderate	6.9	<p>In addition to the above, the area of inundation is more substantial. Main traffic routes may be affected. Some buildings may be affected above the floor level. Evacuation of flood affected areas may be required. In rural areas removal of stock is required.</p> <ul style="list-style-type: none"> • Swan Reach Road flooded (northeast of Baines Road). Access to Tambo Upper Primary School may be lost with floodwaters possibly cutting the Tambo Upper Road. • Access to properties may be lost along Metung Road (between Rosherville Road and Bylands Court). • Several properties likely isolated throughout Swan Reach due to flooding on Tambo Upper Road both north and south of the Princes Hwy. • Some properties off Sardine Flat Road may be inundated (particularly farm sheds in the floodplain).
	8.2	<ul style="list-style-type: none"> • Swan Reach Road likely flooded over a 500 metre section near Mossiface (depths up to 2.5 metres). • Stephenson Road likely flooded at intersection with Tambo Upper Road (depths up to 1.5 metres). • Tambo Upper Road likely flooded (up to 2.5 metres depths over a 5-kilometre section) from Tambo Upper to intersection with Cunningham Road. • Large stretch of Tambo Upper Road likely flooded immediately north of Swan Reach (depths up to 4.0 m). • Metung Road likely flooded over a 3.2 kilometre section following the Tambo River south of Swan Reach (depths up to 1.5 metres). • Initial flooding likely of Punt Road / Clunes Road intersection, Johnsonville (depths up to 0.5 metres). • Several buildings off Reynolds Road / Tambo Boulevard toward the river mouth are likely being impacted by floodwaters with depths greater than 0.1 metres.
	9.5	<p>Two additional properties are likely being threatened by flood water on Old Orbost Road with another house under threat on Main Street Bruthen.</p>



Flood Event	Height (metres)	Impact/level
		<p>Impacted roads:</p> <ul style="list-style-type: none"> • Curtis Lane at Mossiface • Great Alpine Road – 1km East of Wiseleigh • Hoffman's Lane at Mossiface • Metung Road – south of Swan Reach • Punt Road at Intersection with Clunes Road • Stephenson Road at Tambo Upper Road intersection • Swan Reach Road near Mossiface • Tambo Upper Road at Intersection with Cunningham Road • Tambo Upper Road north of Swan Reach • Tambo Upper Road 2 kilometres south of Stephenson Road • Tambo Upper Road – south of Bruthen-Nowa Nowa Road intersection • Swan Reach-Metung Road south of the Princes Highway at Swan Reach • Tambo-Upper Road from Tambo-Upper to Swan Reach.
2012	9.7	<p>In the 2012 flood event, major damage was sustained to the old timber bridge over the Tambo River on Stephenson Road which was subsequently replaced by a higher concrete bridge.</p> <ul style="list-style-type: none"> • The Princes Hwy was cut at Nicholson and Lakes Entrance, impacting the Nicholson, Johnsonville and Swan Reach townships preventing deliveries for two days. • The jetty and car park at Nicholson were totally submerged resulting in damage to the toilet block and the Nicholson Angling Club meeting rooms.
Major	10.0	<p>In addition to the above, extensive rural areas and/or urban areas are likely inundated. Many buildings may be affected above the floor level. Properties and towns are likely to be isolated and major rail and traffic routes closed. Evacuation of flood affected areas may be required. Utility services may be impacted. The entire floodplain will likely be inundated between the Tambo River and the old Tambo River watercourse. Many structures/buildings across the Mossiface/Bruthen floodplain may now be flooded above floor level.</p>
	11.0	<ul style="list-style-type: none"> • Two additional properties likely inundated on Old Orbost Road, Swan Reach. • Deep flooding over Tambo Upper Road likely for a 400 metre section at intersection of Bruthen-Buchan Road. Deep flooding likely on Punt Road, flooded at intersection of Clunes Road, Johnsonville.
1% event	11.9	<ul style="list-style-type: none"> • Floodwaters likely over the East Gippsland Rail Trail south of Mossiface of up to 0.5 metres. • Princes Highway at Swan Reach is likely flooding near the primary school oval. Hazardous depths and currents likely throughout the Fred Albert Bridge area (Stephenson Road). Private/Unnamed road access off Stephenson Road may be cut with shallow floodwaters. • Bruthen Nowa-Nowa Road and Jennings Road intersection is cut off due to flood water. • The extent of impact may not increase substantially, however flood depths may continue to increase for impacted areas.
1998	12.0	<p>The 1998 flood event is the largest flood on record for the region. The Princes Hwy was closed including many local/unnamed roads, with access to emergency vehicles limited for up to 24hours after the event. The event caused widespread damage to businesses, residential property, rural fencing and agricultural land.</p>
	12.8	<p>Eight additional properties likely to be inundated at Upper Tambo Road and Jennings Road intersection (Bruthen). Some additional properties may be at risk just off Rodwell Road (Tambo Upper). Princes Highway likely flooded over 100 metre section at Swan Reach, maximum depth 0.4 metres. Stephenson Road likely flooded over a 100 metre section west the of Tambo River, maximum depth 0.5 metres. In a worse-case-scenario, the following roads may also be impacted by floodwaters exceeding well over 12.8 m:</p> <ul style="list-style-type: none"> • Baines Road • Bolding Court



Flood Event	Height (metres)	Impact/level
		<ul style="list-style-type: none"> • Howletts Landing Road • Killarney Drive • Kiln Lane • Limestone View • Rodwell Road • Swan Street <p>In extreme floods above this level, up to 112 buildings in the Lower Tambo reach may be flooded above 0.1 metre depths.</p>



Staying Informed and Further Information

- Current warnings (VicEmergency) [emergency.vic.gov.au](https://www.emergency.vic.gov.au) 1800 226 226
- Bureau of Meteorology (BoM) [bom.gov.au/vic/warnings](https://www.bom.gov.au/vic/warnings) 1300 659 217
- VicRoads Traffic [traffic.vicroads.vic.gov.au](https://www.traffic.vicroads.vic.gov.au)
- Emergency Broadcasters
 - ABC Gippsland
 - 100.7FM or 828AM
 - SKY NEWS Television
 - REGFM 105.5
 - TRFM 99.9
- VICSES Social Media
 - [facebook.com/vicses](https://www.facebook.com/vicses)
 - twitter.com/vicsesnews
- Preparing for Flood Emergencies [ses.vic.gov.au/get-ready](https://www.ses.vic.gov.au/get-ready)
- Creating an Emergency Plan [redcross.org.au/prepare](https://www.redcross.org.au/prepare)
- East Gippsland Catchment Management Authority [egcma.com.au](https://www.egcma.com.au) (03) 5152 0600
- East Gippsland Shire Council [eastgippsland.vic.gov.au](https://www.eastgippsland.vic.gov.au) (03) 5153 9500
- National Relay Service NRS [relayservice.gov.au](https://www.relayservice.gov.au)

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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](#).
- 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	
	<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>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.</p> <p>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>A newsletter containing updates for communities affected by an emergency.</p> <p>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, we may alert communities by sounding 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 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 redcross.org.au/prepare 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 here. Tick items as you pack them into your 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 <https://www.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 the <http://www.bom.gov.au> and warnings through www.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.

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.
- If you are staying in a caravan, move to higher ground before flooding begins.
- 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. Never enter floodwater. 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 until authorities advise it is safe to do so.
- 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 and wash your hands and clothes regularly.

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