



Serpentine Local Flood Guide

Riverine flood information for Loddon river at Serpentine



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





Are you at risk of flood?



Flooding throughout the Loddon river district is characterised by large expanses of slow-moving water, and due to the extremely flat terrain even minor flooding can inundate areas within the region.

Did you know?

The Loddon Shire is located on a flood plain and is therefore subject to flooding from time to time, while engineering strategies have been implemented within some towns to reduce the impact of flooding; it is your responsibility to make sure you are prepared for the occurrence of flood.

The town sits on a flood plain which extends to Kerang and is named after Serpentine Creek, a tributary of the Loddon River, and is situated about 5 kilometres upstream from where the creek joins the Loddon River.



September and November 2010

During these two events there were no reported residential property damage in Serpentine, however due to the significant flooding across the wider floodplain along the Loddon River reports of damage to rural property including livestock occurred.

January 2011

At the floods peak the water was reported to be 90 kilometres long and 50 kilometres wide, with water volumes recorded at the Laanecoorie Reservoir spillway reaching 194 gigalitres per day. To put this number into context, Melbourne uses 460 gigalitres of water per year.

The flood progressively caused isolation to many parts of the Shire with the flood waters cutting roads and highways for several days, with some taking years to be repaired. Failure of the mobile phone system also occurred during the event, along with widespread power outages for periods between 12 – 36 hours.

Isolation

The following is a list of major roads that may be inundated in a flood, dependent on the size and flow, noting that many minor roads may also be inundated in a flood event and to plan ahead.

- Loddon Valley Hwy, South of township
- Bridgewater-Serpentine Road
- Old Boort Road
- Echuca-Serpentine Road
- Tandarra Road





Levees

The following describes a number of known major levees in the Loddon catchment. This includes numerous minor private levees and structures such as roads,

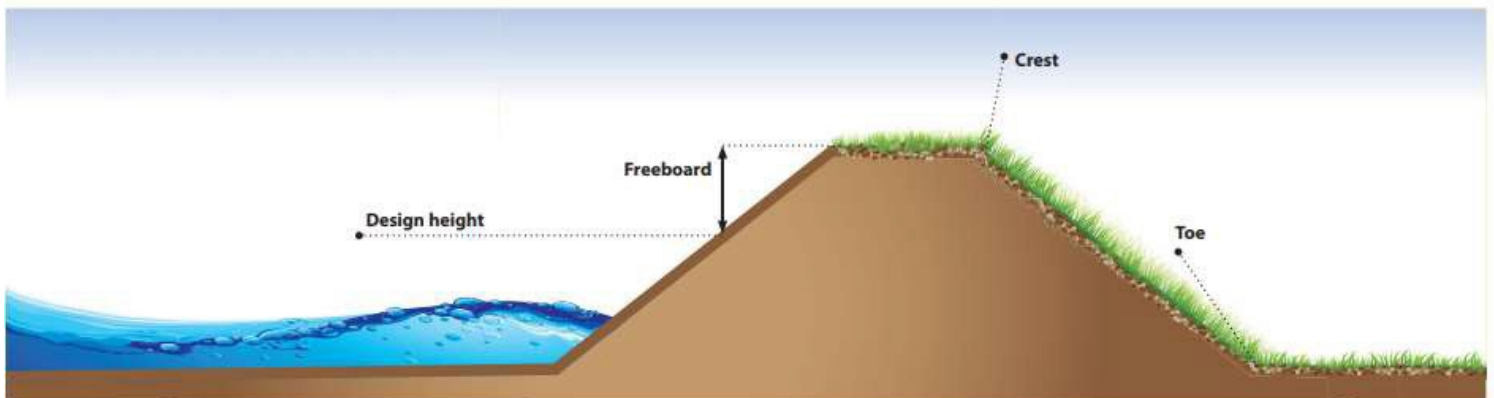
A flood levee is an embankment usually along-side a river or creek designed to reduce the risk of flooding. No levee is guaranteed flood proof and levees can fail.

Overtopping: the height of floodwater is higher than the height the levee is designed for.

Breaching: part of the levee fails, creating an opening that floodwater can get through.

Key facts about levees:

- Flood levees are built to reduce the risk of flooding to properties. They are not designed to protect people.
- Flooding may flow over the top of the levee into low-lying areas.
- No levee is flood proof, they can and will fail.
- Listen to evacuation notifications. If a levee is in danger of failing, you will be advised to evacuate.
- Never rely on a levee to protect you
- Tune into Emergency Broadcasters including ABC local radio, designated radio stations and SKY NEWS Television for up to date warnings and advice.





Loddon flood levels at the Loddon River Downstream Lannecoorie gauge

When the Bureau of Meteorology (BoM) issues Flood Warnings they include a reading of the flood height at the gauge named Loddon R D/S Laanecoorie. 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.

| Height (metres) | Impact/level * | |
|-----------------|----------------|--|
| 5.50 | Major Flood | |
| | 1988 | Cause widespread flooding. Properties and whole areas isolated by water. Closes major roads and rail routes. |
| 3.00 | Moderate | |
| | 1945 | Spill over river banks and cover larger areas of land. Affect traffic routes. Require the removal of stock in rural areas. |
| 1.50 | Minor | |
| | 1963 | Spill over river banks and cover nearby low lying areas. |

* Note that no river gauge exists within Serpentine; actions are linked to the peak flow rate from Laanecoorie Reservoir

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 Central Victoria 91.1 FM
SKY NEWS Television
- VICSES Social Media facebook.com/vices
twitter.com/vicesnews
- Preparing for Flood Emergencies ses.vic.gov.au/get-ready
- Creating an Emergency Plan redcross.org.au/prepare
- Catchment Management Authority nccma.vic.gov.au 5440 1824
- Loddon Shire Council loddon.vic.gov.au 5494 1200
- 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. 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 now. 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. 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 in the warning. | |
| | <p>PREPARE TO EVACUATE/ EVACUATE IMMEDIATELY</p> <p>An evacuation is recommended or procedures are in place to evacuate.</p> |

| 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 to issue a newsletter containing updates for communities affected by an emergency.</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.

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.



- 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 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 [redcross.org.au/prepare](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 [bom.vic.gov.au](https://www.bom.vic.gov.au) and warnings through [emergency.vic.gov.au](https://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.
- 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](https://www.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.