

# LIVING IN THE PENRITH/ EMU PLAINS FLOODPLAIN

**DO YOU KNOW YOUR FLOOD RISK?  
ARE YOU PREPARED FOR FLOODS?  
FIND OUT MORE AT [WWW.SES.NSW.GOV.AU](http://WWW.SES.NSW.GOV.AU)**

## FLOODS. THE RISK IS REAL.

The Hawkesbury-Nepean Valley covers a wide area in Western Sydney from Bents Basin near Wallacia to the Brooklyn Bridge. The valley has a long history of dangerous and deep flooding. This is because floodwaters flow into the valley more quickly than they can flow out, causing them to back up. Heavy rain caused by an East Coast Low can lead to severe flooding in just a few days.

The March 2021 flood was only the 15th largest recorded flood in the region - though the impacts were felt far and wide. Floodwater severely impacted over 600 homes, over 30 caravan parks, hundreds of farms, and transport routes and essential services such as electricity were cut. The estimated damage bill was several hundred million dollars.

Floodwaters are also dangerous - they can be deeper and faster flowing than they seem, and full of hazardous materials such as toxic chemicals, sewage, broken building materials, sharp branches and wildlife (including snakes).



March 2021 flood a few days after it peaked in Penrith. Source: Adam Hollingworth

## FLOODS CAN BE MUCH WORSE.

There have been much larger floods in the valley including the worst flood on record. In 1867, river levels reached 19.1 metres above normal river height at Windsor and the region was devastated. (See page 3 for flood comparisons.) If a similar flood happened now the consequences would be catastrophic - many lives would be at risk and almost 90,000 people would have to evacuate.

Floods are random, naturally occurring events. It's impossible to predict when the next major flood will happen. History has shown that serious floods can happen many times in a single decade, and not again for many years.



Backwater flooding on Peach Tree Creek (Penrith) March 2021 flood. Source: Adam Hollingworth

# PENRITH/EMU PLAINS FLOODPLAIN.



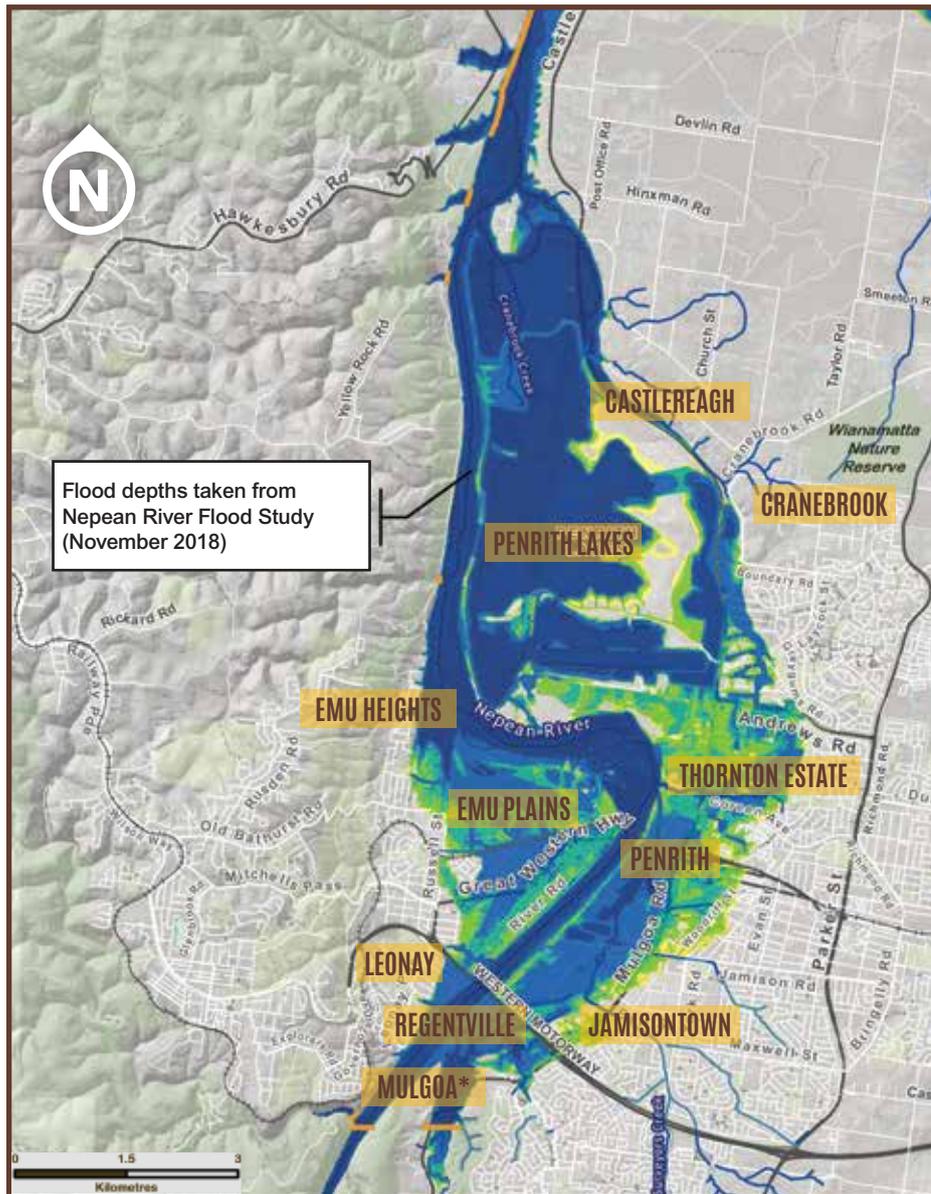
The map below highlights suburbs at greatest risk of flooding from the Hawkesbury River, South Creek and/or Eastern Creek.

The first step to being prepared for a flood is knowing your flood risk.

This map shows a flood that has a 1 in 500 (or a 0.2%) chance per year of happening.

This flood has a 15% chance of happening in an 80-year lifetime.

If your suburb isn't listed, you could still be at risk of flooding.



## MAP KEY

### DEPTH OF FLOODING

- |  |            |  |            |
|--|------------|--|------------|
|  | 0 - 0.3m   |  | 0.3 - 0.5m |
|  | 0.5 - 1.2m |  | 1.2 - 2m   |
|  | 2 - 4m     |  | >4m        |
- Boundary between different sources of flood mapping.

\* A small proportion of properties in the suburb of Mulgoa are affected by flood from either the Penrith/Emu Plains floodplain or the Wallacia floodplain. No properties are directly affected in Mulgoa village.

Flood information sources: • Penrith-Emu Plains floodplain - Nepean River Flood Study (Advisian 2018, prepared for Penrith City Council). • Other flood information - Hawkesbury-Nepean Valley Regional Flood Study (WMAwater 2019, prepared for Infrastructure NSW). • All this flood information is used with permission.

The map shows flooding from the Hawkesbury-Nepean River system including backwater effects. It does not focus on other local catchment or overland flooding - please contact your local council for this information.

# YOUR LOCAL AREA: IN THE FLOOD ZONE.

The Penrith/Emu Plains floodplain is a wide floodplain located near the Nepean River. The river banks are high so smaller floods remain mostly within the banks of the Nepean River. However, in a very large flood, most suburbs in the floodplain would experience some flooding.

In a flood similar to the worst on record in the valley, much of Emu Plains and Penrith CBD would be inundated and there would be road closures across the floodplain. Underground car parks in low lying areas would be flooded and power would be cut to thousands of homes across the area.

## PROBABLE MAXIMUM FLOOD LEVEL (PMF).

In this extremely rare event, large areas of Penrith would be inundated. Floodwaters would extend as far as two kilometres along the Great Western Highway east of the Victoria Bridge. The flood extent would include Emu Heights to the west of the Nepean River. This predicted height is based on flood modelling.

## 1867 FLOOD PEAK LEVEL.

Highest flood since European settlement, almost reaching the deck of the then newly-constructed Victoria Bridge. Hundreds of houses flooded to ceiling height, and many people rescued. Western approach to Victoria Bridge damaged. This is estimated to be between a 1 in 200 and 1 in 500 chance per year flood in this area.

## 1 IN 100 CHANCE PER YEAR FLOOD LEVEL.

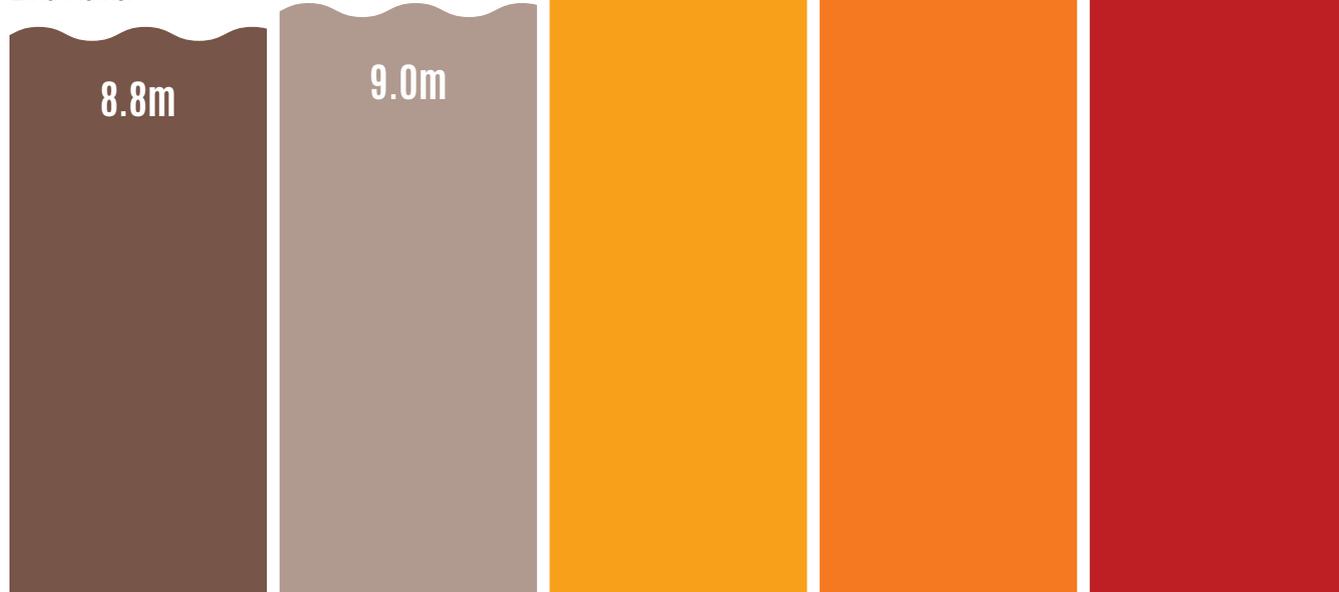
Floodwater would inundate parts of Emu Plains, Leonay, Regentville and Penrith adjacent to Peach Tree and Boundary creeks. Power would be cut to thousands of homes across the area. This predicted height is based on flood modelling.

## 2021 FLOOD PEAK LEVEL.

Most recent serious flood in this area. While the amount of flow in the river was lower than in 1961, the height of floodwater was higher owing to the growth of vegetation in and near the river channel in recent years. In this area, this flood was around a 1 in 10-20 chance per year flood event.

## 1961 FLOOD PEAK LEVEL.

During this flood the Nepean Power Boat and Ski Club clubhouse in Regentville was destroyed and Yarramundi Bridge was flipped over. There were evacuations from Regentville, Penrith and Emu Plains, and a blackout for 24 hours. Floodwater backed up Peach Tree Creek and closed River Road in Emu Plains.



These flood heights are above normal river levels at Victoria Bridge, Penrith. Normal river level is assumed to be 1.0m on the Penrith gauge.

The information contained in this publication is based on knowledge and understanding at the time of compilation (August 2021). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date. NSW State Emergency Service takes no responsibility for the accuracy, currency, reliability and correctness of any information in the map (including, without limitation, any of the information provided by third parties) nor for the accuracy, currency, reliability and correctness of links or references to information sources with regard to the map. While all reasonable care has been taken in the compilation, to the extent permitted by law, NSW State Emergency Service and the State of New South Wales and its employees and agents exclude all liability for the accuracy or completeness of the information, or for any injury, loss, or damage whatsoever (including without limitation liability for negligence and consequential losses) suffered by any person acting, or purporting to act in reliance upon anything contained herein.

# GET PREPARED IN THE PENRITH/EMU PLAINS FLOODPLAIN

THESE SIMPLE ACTIONS WILL HELP PREPARE YOUR HOUSEHOLD FOR FLOODS.

BEING PREPARED CAN SAVE LIVES.

## How to prepare for flood

### ✓ Know where to get updates and warnings

- Bureau of Meteorology: local weather updates: Visit [www.bom.gov.au](http://www.bom.gov.au) or download the BOM app
- NSW State Emergency Service (NSW SES): information on floods and storms Visit [www.ses.nsw.gov.au](http://www.ses.nsw.gov.au) and on social media including Facebook - [www.facebook.com/NSW.SES](https://www.facebook.com/NSW.SES)
- ABC Radio: the official emergency broadcaster Listen at [reception.abc.net.au](http://reception.abc.net.au) and ABC Listen app

### ✓ Prepare a Get Ready to Go kit

#### What to pack:

1. Health care items like medications and prescriptions
2. Copies of your important documents (hard copies or stored digitally)
3. Important valuables and momentos
4. Important phone numbers
5. Battery powered radio and torch
6. Clothing and personal items

### ✓ Make a plan for evacuation

Know where you will go, how you will get there, what evacuation routes you can use, what you will do with your animals, and how you will manage your health

Visit [www.ses.nsw.gov.au/yourfloodplan](http://www.ses.nsw.gov.au/yourfloodplan) for more information and tips. Find how to plan for your animals here - [www.getreadyanimals.nsw.gov.au](http://www.getreadyanimals.nsw.gov.au)

### ✓ Share your plan

Talk with your relatives, friends, and neighbours about what you will do if you need to evacuate

## What to do during a flood



### Follow NSW SES Flood Advice and Emergency Warnings

- Listen to your local ABC radio station for up to date flood information and advice
- Follow advice from NSW SES if you are asked to evacuate, don't wait until it is too late



### Take your emergency bag

- This should include your medications, prescriptions and any assistance equipment



### Take your animals

- Put them on leads or in pet carriers



### Know where to go

- Follow advice on evacuations and check live traffic information. Visit [www.ses.nsw.gov.au](http://www.ses.nsw.gov.au) and [www.livetraffic.com](http://www.livetraffic.com) or the Live Traffic app



### Look out for each other

Share information with family, friends, and neighbours and help each other or those who may need assistance

## Key contact information



[www.ses.nsw.gov.au](http://www.ses.nsw.gov.au)



**138 737** for general enquiries



**132 500** for emergency assistance during a flood

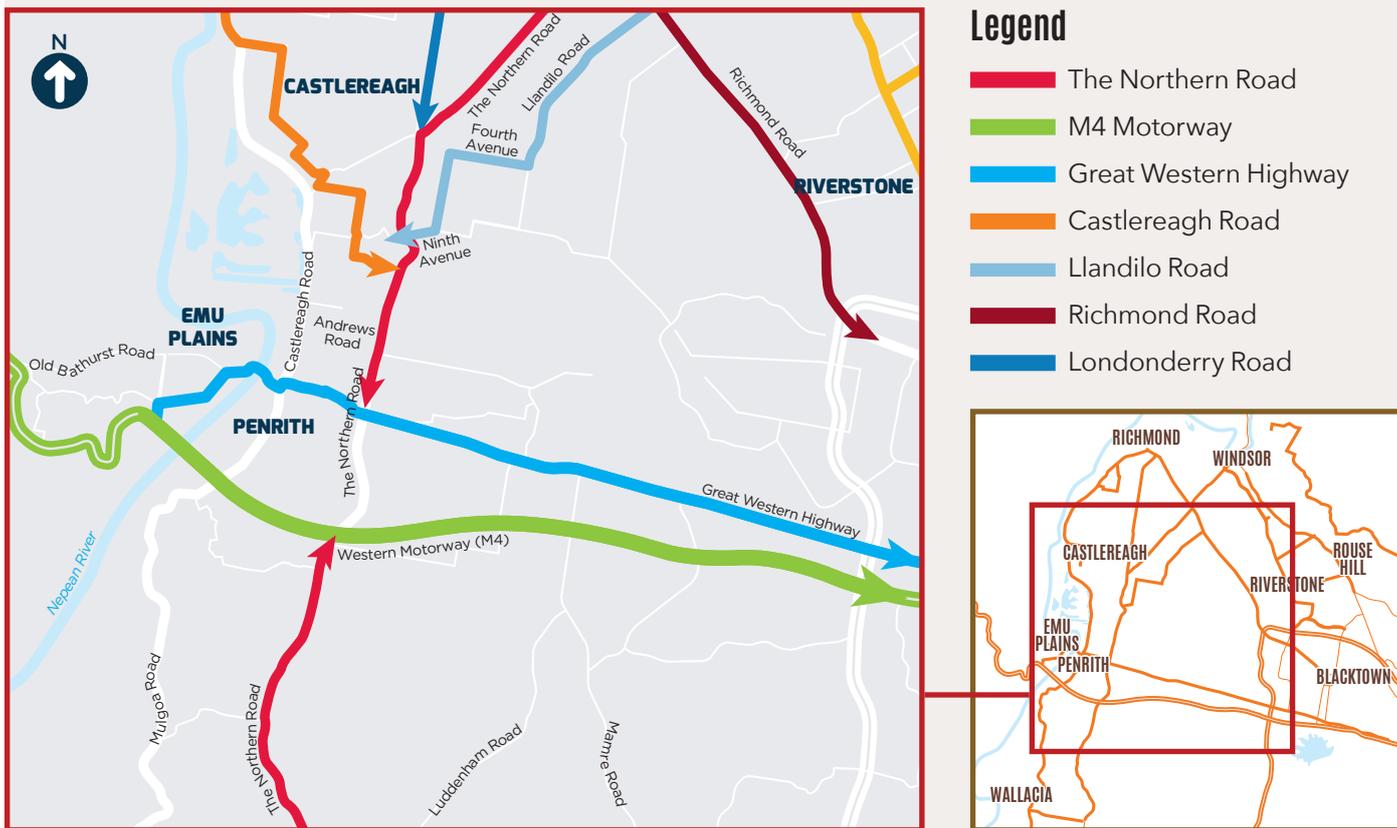


**000** for life threatening emergencies

# Your local evacuation routes

Your official evacuation routes are the *Great Western Highway* and the *M4 Motorway*.

Know that routes can get cut during a flood. Always check for traffic updates before evacuating.



## FLOOD FORECASTS AND DECISIONS ABOUT EVACUATING

The Bureau of Meteorology (BOM) predicts flood heights for the Hawkesbury-Nepean River at river height gauges located along the river.

Using these predictions, the NSW State Emergency Service (SES) makes decisions about the need to issue flood evacuation warnings and orders to keep communities safe.

During a flood you need to respond to evacuation advice. If you do not, you risk getting trapped and being unable to leave safely.

The main river height gauge in your floodplain is Nepean River at Penrith and information is automatically updated on the **BOM's website**.

## Need help?

For emergency help in floods call NSW SES on 132 500

In life threatening emergencies call Police/Ambulance on 000

- Hearing/speech impaired SMS NRS: 0423 677 767
- Internet Relay: <https://internet-relay.nrscall.gov.au>
- If you are homeless call **Link2Home** on 1800 152 152

