



Local Flood Guide Apollo Bay



Flood information for the Barham River at Apollo Bay



APOLLO BAY



FLOOD STORM EMERGENCY **132 500**

For more information visit www.ses.vic.gov.au



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The Apollo Bay local area

Apollo Bay is located on the Victorian coastline on The Great Ocean Road. It is 191 kilometres southwest of Melbourne and lies in the foothills of the Otway Ranges.

The Barham River flowing down from the Otway Ranges, cuts through the western side of Apollo Bay. During prolonged rainfall, the Barham River swells, forming a natural floodplain.

Are you at risk of flood?

Apollo Bay's location next to the sea and the Barham River plus its history of heavy rainfall means that the town is open to several potential flood risks. Currently, the main risks are of riverine flooding (from the river) and flash flooding (from heavy rainfall).

In the past, Apollo Bay's floodplain fills whenever there is heavy rainfall. In November 2007 flooding resulted in the Barham River flats being submerged under a metre of water. Local roads were cut and floodwater surrounded some properties for extended periods of time.

Though the Barham River normally drains out to Bass Strait, this can be disrupted by freshwater flows from both Barham River and Anderson Creek. One of the outcomes is flooding of the paddocks in the upper part of the estuary.

On June 11, 2007, flooding in the town was caused by only two days of heavy rain that fell across the Otway Ranges.

As well as the current flood risks, a longer term risk is from rising sea levels, which in the future could affect much of Australia's coastline including Apollo Bay, increasing the frequency and consequences of flooding near the coast.

Flood Levels for the Barham River at the Paradise Gauge

While no two floods are the same, the following table can give you an indication of what you can expect at certain heights, including when your access may be cut off and when your property may be affected. The Paradise Gauge is not automatically monitored by the Bureau of Meteorology and residents may only receive a general flood warning or flood watch (see page 4 for warning information).

While not monitored, the Paradise Gauge can still provide you with an indication of what you might experience during a flood:

2.68 m	Flooding over floor level of the house opposite the caravan park.
2.21 m	Barham River flooding Number 80 (Barham River Road) and the main sections of the caravan park.
1.72 m	Barham River flooding the road crossing over Anderson Creek.
1.40 m	One house isolated opposite Caravan Park.
1.30 m	Lower section of the Caravan Park begins to flood.

Did you know?

Flooding at Apollo Bay and the surrounding area can result in the closure of the Great Ocean Road because of the risks of landslides, which can isolate the town for days after a flood. A report on 16 June 1952 described the town being cut off by flooded rivers and part of the Great Ocean Road washing away. This occurred more recently in January 2011 when the Great Ocean Road between Apollo Bay and Lorne was cut off.

The next big flood might occur at any time. It is important to remember that no two floods are the same.

If you live or work close to a creek, river or low-lying area you may be at risk from floods. Even if your property is not affected by floodwater, you may be affected indirectly by flooding as some roads will be closed and power, sewerage and telephone services may be disrupted.

Annual Exceedance Probability (AEP)

Annual Exceedance Probability (AEP) is the probability of a flood occurring in any given year. The map on page 2 shows the expected flooding in a 1% AEP flood in Apollo Bay in blue. The blue layer is designed to help you see where the water is expected to go in a flood of this size in Apollo Bay.

AEP is described as the percentage chance of a flood occurring in each year, for example, a 1% AEP flood means there is a 1% chance of a flood this size occurring in any year. The smaller the percentage of flooding means that it is less likely to occur but is much bigger.

For example, a 1% AEP flood is less likely to occur but will be more damaging than a 10% AEP flood which is more likely to occur but will not flood as large an area.



The Paradise Gauge

About Flood Warnings

About flood warnings

Flood Watches and **Weather 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. A Flood Watch will be cancelled if it is no longer a threat.

The Victoria State Emergency Service (VICSES) will give information about how the floodwater might affect people and properties. This includes safety messages to remind you what to do.

Severe Thunderstorm Warnings

Thunderstorms are classified as severe, due to their 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.

Severe Weather Warnings

These warnings are issued to the community by the Bureau of Meteorology when severe weather is expected that is not directly related to severe thunderstorms and bushfires. Examples of severe weather include damaging winds and flash-flooding.

Flash Flooding happens quickly. There may be little or no warning. The arrival time or depth of a flash flood can usually not be predicted.

Listen to Severe Thunderstorm and Severe Weather Warnings for your area. If you hear a warning, check the Bureau of Meteorology and Victoria State Emergency Service for warnings and advice.

Flash flooding occurs because rain falls faster than the ground has the ability to absorb, causing water run-off into low-lying areas and into local drainage systems unable to cope with the volume of water. This results in water rising rapidly and flowing powerfully and quickly.

Flash flooding:

- Occurs so fast that it is often difficult to provide a detailed warning. Often it arrives without warning.
- Usually results from heavy rainfall falling during severe storms over a short time.

Know your local environment

If you live, work or travel to Apollo Bay, keep an eye on the weather, especially heavy rainfall or sustained rainfall over a number of days. Knowing the local area and making your own observations are a great tool to help your prepare for a potential flood. Keep an eye on local river and creek heights.

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 Alert

VICSES may provide alerts to the Apollo Bay community through the Emergency Alert telephone warning system. All Emergency Services can use Emergency Alert to warn communities about dangerous situations by voice message to landline telephones or text message to mobile phones.

If you receive a warning, make sure that all family members, people at work and your neighbours are aware of the situation.

If you receive an Emergency Alert you should pay attention and act. It could mean life or death.

If you need help to understand a warning, ask a friend, neighbour or family member.

Warnings for Apollo Bay

The Bureau of Meteorology does not issue river height predictions for Apollo Bay.

Weather Warnings and Flood Watches issued by the Bureau will provide information about when flooding is possible.

If flooding is likely, tune into emergency broadcasters to watch and listen for information relating to the Barham River, the Corangamite Catchment or the South West weather district.

Information about potential floods will also be available from VICSES. You can monitor rainfall and river levels on the Bureau of Meteorology website. Apollo Bay residents should listen out for Severe Weather Warnings which may lead to flash flooding.

The Paradise Gauge, located 3.5 kilometres North West of Apollo Bay is not monitored by the Bureau of Meteorology but can still provide you with an indication of what you might experience during a flood in the area (*see page 3, flood levels for the Barham River at the Paradise Gauge*).



Paradise Gauge location

NOW - before a flood

- Check if your home or business is subject to flooding. For more information, contact Colac Otway Shire Council.
- Develop an Emergency Plan.
- Check if you could be cut off by floodwater.
- Know the safest way to go if you decide to leave your property and plan an alternative route.
- Check your insurance policies to ensure your equipment, property and business are covered for flood damage.
- Keep a list of emergency numbers near the telephone.
- Put together an Emergency Kit.

When a flood is likely

- Take action. Follow your Emergency Plan.
- Listen to your radio for information and advice.
- Check your neighbours are safe and know about the flood.
- Stack possessions on benches and tables with electrical goods in the highest places.
- Anchor objects that are likely to float and cause damage.
- Move rubbish bins, chemicals and poisons to the highest place.
- Put important papers, valuables, photos and other special personal items into your Emergency Kit.
- Business owners should raise stock, business records and equipment onto benches and tables.
- Rural property owners should move livestock, pumps and machinery to higher ground.
- If you are likely to be isolated, have enough food, drinking water, medicine, fuel and other needs to last at least three days.
- Do not forget pet food and stock feed.

Your Emergency Plan

Emergencies can happen at any time, with little warning. People who have planned and prepared for emergencies have reduced the impact and recovered faster.

Taking the time to think about emergencies and making your own plan helps you think clearly and have more control to make better decisions when an emergency occurs.

Your Emergency Plan should identify:

- The types of emergencies that might affect you.
- How those emergencies might affect you.
- What you will do before, during and after an emergency.
- Where to get more information.
- Where you will go if you evacuate and the best way to go in different circumstances.
- A list of phone numbers you will need, including emergency services, your insurance company, friends and family.



Visit ses.vic.gov.au to obtain a copy of your Home Emergency Plan workbook

Evacuation

During a flood, Police, VICSES and other emergency services may advise you to evacuate to keep you safe. It is important that you follow this advice.

There are two types of evacuation notices that may be issued via your emergency broadcaster during a flood:

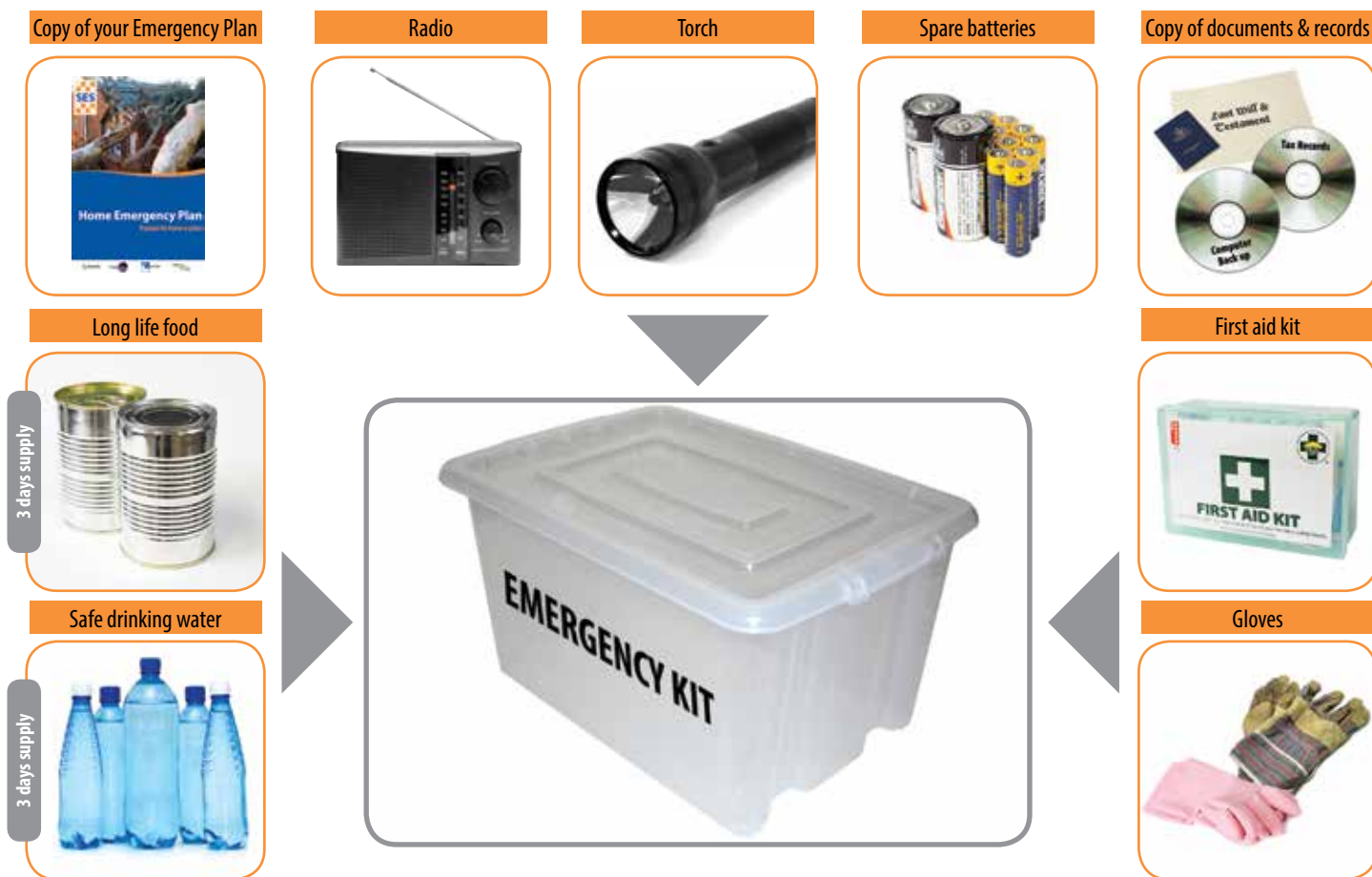
- **Prepare to evacuate** - means you should act quickly and take immediate action to protect your life and property. Be ready to leave your property.
- **Evacuate immediately** - you must leave immediately as there is a risk to lives. You may only have minutes to evacuate in a flash flooding situation.

Remember you can leave at any time if you feel unsafe. You do not need to wait to be told to evacuate.

The time for me to evacuate is before:

Emergency Kit

Every home and business should have a basic emergency kit:



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 _____
- Photos _____
- Family Keepsakes _____
- Valuables _____
- Documents _____
- Other _____

During and After a Flood

Never
Drive, Ride or Walk
Through Floodwater

During a flood

When flooding has begun:

- **Never drive, ride, swim or walk through floodwater.**
- **Floodwater can be deep and damage roads and bridges.**
- **Do not let your children play or swim in floodwater.**
It is dirty, dangerous and deadly.
- Tune in to your emergency broadcasters: ABC Local Radio, Commercial Radio, designated Community Radio Stations and SKY NEWS Television.
- In life-threatening emergencies, call Triple Zero (000).
- **For emergency help from the VICSES in floods and storms call 132 500.**
- Stay away from all waterways including drains and culverts.
- Stay away from fallen power lines – electricity travels easily through water.
- Be aware that animals, snakes, rats, spiders and other pests may be on the move during a flood - they can come into houses and other buildings or hide around sandbags.
- Keep in contact with neighbours.
- Be prepared to leave early.

When you leave early or evacuate:

- Leaving early is always the safest option, leave well before roads are closed by floodwater.
- Take your emergency kit and three days supply of clothing with you.
- Turn off the electricity, gas and water as you leave.
- Take your pets with you. Do not leave them behind. Dogs should be muzzled and cats in cages.
- Go to a relief centre or to stay with friends or family in higher areas.

If activated, Relief Centres can help you with:

- Temporary accommodation
- Financial help
- Personal support
- Drinks and meals
- Basic clothing and personal needs
- Help to contact family and friends.

If you choose to shelter with a friend or relative, tell authorities where you are staying.

After a flood

Flood dangers do not end when the water begins to fall.

To make sure you stay safe:

- Keep listening to local emergency broadcasters.
- Do not return home until advised that it is safe.

Once you return to your home:

- Drink bottled water or boil all drinking water until advised that the water supply is safe.
- Throw away any food or medicines that may have been in contact with floodwater or affected by power outages.
- When entering the building, use a torch to light your way - never use matches, cigarette lighters or any other flame as there may be gas inside.
- Keep the electricity and gas off until checked and tested by a professional.
- Take photographs of all damage for insurance.
- Clean your home straight away to stay healthy.

How VICSES helps the community

The Victoria State Emergency Service (VICSES) is a volunteer based emergency service. Although our VICSES volunteers attempt to reach everyone prior to or during an emergency, at times this is not possible. Therefore it is advisable for you to be prepared for emergencies so that you can share responsibility for your own wellbeing during those times. In a flood, VICSES assistance may include:

- Giving flood advice
- Protecting essential services
- Helping to protect infrastructure
- Rescuing people from floodwater
- Advising of an evacuation.

To assist your preparation, it is recommended that you obtain a copy of a VICSES Home Emergency Plan by visiting ses.vic.gov.au



Emergency Checklist

NOW: Flood preparation

- Check if your insurance policies cover flooding.
- Keep this list of emergency numbers near the telephone.
- Put together an Emergency Kit and prepare a home or business Emergency Plan, see www.ses.vic.gov.au

When you hear a Flood Watch or weather warning

- Listen to severe weather warnings for flash flood.
- Listen to radio and check the VICSES website for more 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.

When flooding may happen soon

- Make sure your family members and neighbours are aware of what is happening.
- Be ready to evacuate. Act early, conditions change rapidly, roads and escape routes can be covered or blocked. Don't forget to take pets and your medicine with you.
- Put household valuables and electrical items as high as possible.
- Turn off water, gas and electricity at the mains.
- Secure objects likely to float and cause damage. Raise chemicals and oils well above the predicted flood height.
- Move pumps, machinery, hay and livestock to higher ground.

During the flood

- For emergency assistance, call 132 500 for VICSES.
- DO NOT drive, ride, swim or walk through floodwater. This is the main cause of death during floods.
- NEVER allow children to play in floodwater. This is the main cause of death during floods for children and young people.
- Stay away from drains, culverts and waterways, water can flow quickly and have strong currents.
- Stay well clear of fallen trees, power lines and damaged buildings.

After the flood: recovery

- If your property has been flooded, check with Colac Otway Shire Council for information and advice.
- Have all electrical and gas equipment professionally tested before use.

For more information visit:

-  ses.vic.gov.au
-  facebook.com/vicses
-  twitter.com/vicseswarnings

Emergency Contacts

Life threatening Emergency
Police fire ambulance

000 Triple Zero
TTY106

Victoria State Emergency Service (VICSES) **132 500**
For flood / storm emergency calls

VICSES Information Line
Operates during major floods or storms

1300 842 737
1300 VIC SES
ses.vic.gov.au

Bureau of Meteorology (BoM)
Weather Information, forecasts, warnings

1300 659 217
bom.gov.au

National Relay Service (NRS)

relayservice.com.au

The deaf, hearing or speech impaired can call SES or 000 using NRS:

	DIAL	THEN ASK FOR
■ Speak and Listen (SSR) users phone	1300 555 727	132 500
■ TTY / Voice users phone	13 36 77	132 500

Internet Relay users log into

www.iprelay.com.au/call/
then enter: **132 500 or 000**

VicRoads

Road closures and hazard reporting service

13 11 70
vicroads.vic.gov.au

Colac Otway Shire Council

Phone: (03) 5232 9400
Email: inq@colacotway.vic.gov.au
Web: www.colacotway.vic.gov.au

Weather District: South West

Catchment: Corangamite

Emergency Broadcasters

Emergency broadcasters include ABC Local Radio, designated commercial radio stations across Victoria and SKY NEWS Television.

- ABC Melbourne 774 AM
- ABC Local 89.5 FM
- Mixx 95.9 FM
- 1134 AM 3CS
- SKY NEWS Television

Complete the following and keep this information handy close to the phone:

Your electricity supplier: _____

Your gas supplier: _____

Doctor: _____

Vet: _____

Insurance

Policy Number: _____

Phone Number: _____