



Hawthorn & Hawthorn East Local Flood Guide

Flood information for Gardiner's Creek at Hawthorn & Hawthorn East



For flood emergency assistance call
VICSES on 132 500



The Victoria State Emergency Service respectfully acknowledges Aboriginal and Torres Strait Islander people as the Traditional owners of the land throughout Victoria and acknowledges their ancestors and elders, past, present and emerging.



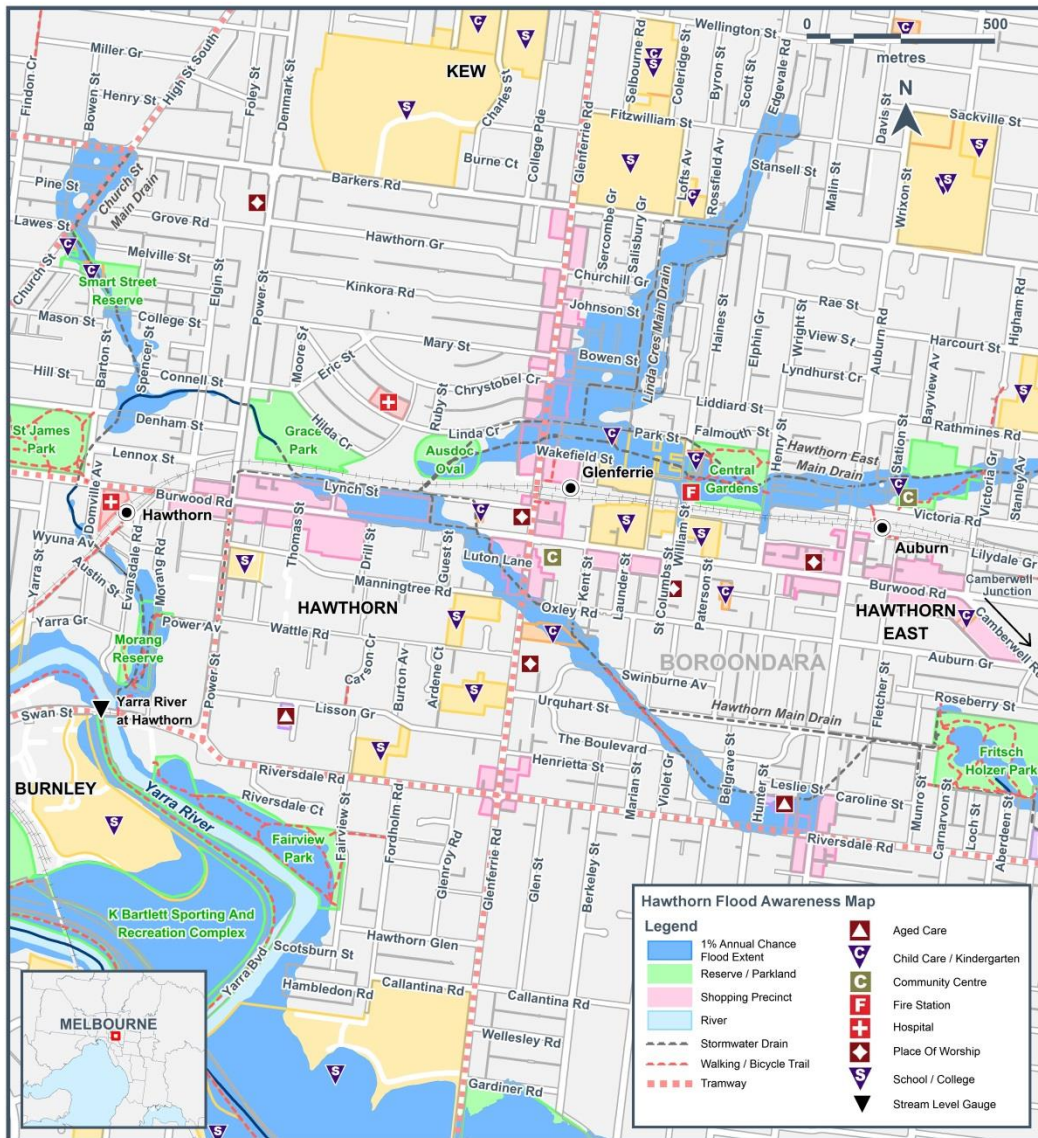
Hawthorn & Hawthorn East

These areas are prone to flooding during heavy rainfall events that can result in road closures and effect private properties. This guide provides an overview of the risk of flood and includes information that can help you to be more prepared in case of an emergency.

This guide focusses on the suburbs of Hawthorn and Hawthorn East. Located approximately six kilometres east of Melbourne in the Boroondara City Council area, they have a mixture of established residential, retail and dense business zones.

Gardiners Creek is the prominent watercourse in the area, flowing from the east through the municipalities of Whitehorse and Monash. High intensity, short duration rainfall events can cause flash flooding in and around the local residential roads, while prolonged rainfall may see Gardiners Creek flood. The area sees moderate to slow water movement as floodwaters make their way along the flat recreational reserves that sit on the banks of Gardiners Creek.

The following maps shows the expected flooding during a 1% flood event in Hawthorn and Hawthorn East. A 1% flood means that there is a 1% chance of a flood of this size occurring in any one year.



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 Melbourne Water.



Are you prepared for a flood?

This guide contains important information on the key agencies that can provide assistance, where to find flood warning and storm information, helpful websites and practical information on how to be better prepared.

Experience shows that those who plan and prepare for emergencies can reduce the impact of the emergency and can recover quicker afterwards.

Further information on 'Preparing for Flood Emergencies' is also available at ses.vic.gov.au/get-ready

Are you at risk of flood?

Most areas of Melbourne experience some level of flooding during an extreme storm event, with those developed prior to the 1970's generally being more likely.

Flash flooding is the primary cause of flooding within the municipality. Flash flooding occurs with little warning, only lasts a short time and can cause severe localised damage. This is due to the small size of the catchments within Boroondara, and results in little time for warnings to be issued to prepare the community for flooding events.



Increased urbanisation within the municipality means that water can't be absorbed by the soil and tends to run off towards lower lying areas. Four main stormwater drains service the area, flowing from the east and north, and discharge into the Yarra River at Wallen Road, Hawthorn. During high intensity rainfall (more than 20 millimetres per hour) which can exceed the capacity of the underground drainage system and established overland flow paths, the amount of water can lead to stormwater drains overflowing, causing flash flooding.

Gardiners Creek meets with the Yarra River on the western boundary of Boroondara, where the Yarra River continues to flow towards the Melbourne Central Business District and then into Port Phillip Bay. Similar to the Yarra River, back flooding events occur in the lower reaches of Gardiners Creek; this impacts Burke Road, Glenferrie Road, Toorak Road and Auburn Road, which could all be flooded.

Prolonged rainfall along Gardiners Creek may see areas adjacent to the lower end of the stormwater network flood. Major traffic thoroughfares in Canterbury Road, Riversdale Road, Toorak Road and Glen Iris Road are all prone to flash flooding as the stormwater drainage overpasses. Toorak Road shopping precinct east of Camberwell Road in Camberwell is also a concern, affecting businesses and tram services. The valley floor of the Hawthorn main drain system is also prone to flooding due to the low surface gradient within the catchment.

Streets at risk of flooding in Hawthorn and Hawthorn East should be avoided if flooding occurs. These include:


- Auburn Road near Auburn Station
- Burwood Road west of Glenferrie Road
- Camberwell Road north west of Camberwell Junction
- Camberwell Junction
- Glenferrie Road, north and south of Burwood Road
- Oxley Road near Glenferrie Road



Did you know?

There have been several historical flooding events throughout Boroondara since settlement. Large flood events have been the result of either large regional or localised rainfall events.

- Flooding in February 2005 caused localised flooding where 125 millimetres of rain fell within 24 hours, the highest rainfall in 150 years.
- On February 4 2011, Kew, Hawthorn, Camberwell, Glen Iris and Ashburton were greatly impacted by a significant storm. Kew recorded 99 millimetres of rainfall in 24 hours. Camberwell Junction was completely flooded, including the Rivoli Cinema Complex and surrounding restaurants. Gardiners Creek experienced significant damage with the flood measuring 5.6 metres on the Gardiner’s Creek Gauge and caused:
 - The Solway pedestrian bridge on Gardiner’s Creek upstream of Burke Road to be affected and eventually washed away by swiftly moving floodwater.
 - Camberwell Junction was completely flooded, including the Rivoli Cinema Complex and surrounding restaurants.



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

The 1891 flood was the worst on record. However the more recent high intensity storm of 2011 caused most damage as the area impacted was highly settled and occupied. No lives were lost in these events however there was significant transport and social disruption, including property damage.

If you require assistance during a flood or storm, contact SES on 132 500. Your local SES Malvern Unit will be able to assist you.

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 774 AM SKY NEWS Television 3AW 693 AM Triple M 105.1 FM	
■ VICSES Social Media	facebook.com/vicses twitter.com/vicsesnews	
■ SES Malvern Unit	facebook.com/malvernsees	
■ Preparing for Flood Emergencies	ses.vic.gov.au/get-ready	
■ Creating an Emergency Plan	redcross.org.au/prepare	
■ Melbourne Water	melbournewater.com.au	131 722
■ Boroondara City Council	boroondara.vic.gov.au	9278 4444




**Life-threatening
Emergency
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Flood warnings and emergency checklist

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 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.</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.

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.



ARE YOU READY?
DO ONE SIMPLE THING TO MAKE YOU SAFER

- 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 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](http://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 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.