Understanding my flood hazard

What is the difference between flood hazard and flood risk?

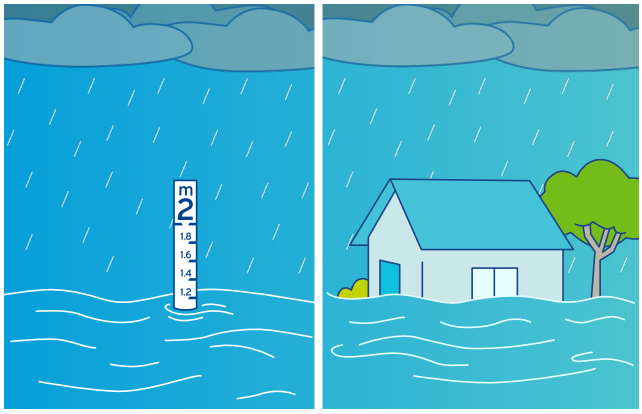
Flood hazard and flood risk are related, but they're not the same. **Flood hazard** looks at the physical characteristics of flooding – like how deep or fast the water might be – whether or not people or property are present. It's the first step in understanding the potential for harm.

Flood risk goes further by considering what could be lost or damaged, based on how exposed and vulnerable an area is.

Hazardous flood conditions can exist without flood risk. If floodplains were unoccupied and unused, flooding would still be hazardous but would not create a risk to the community. It is the human interaction with flooding that creates risk.

In short: flood hazard shows where and how flooding might happen, while flood risk shows what impact it could have.

Flood Hazard **Flood Risk**



What does flood hazard mean for you?

Flood hazard classifications help you understand how dangerous flooding might be in your area. But what do the different classifications actually mean for your home, your safety and your decisions?

This guide breaks it down for you. Our information is based on the latest research and follows the Australian Disaster Resilience Handbook and Australian Rainfall and Runoff (ARR) Guidelines.

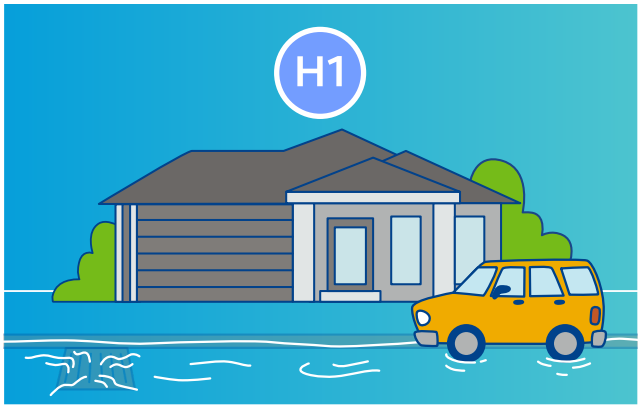
Flood hazard classifications range from **H1 to H6**, with **H1 representing the lowest level of hazard** and **H6 the highest**, based on factors like floodwater depth, speed, and potential danger – helping to indicate how severe flooding could be in an area.

Hazard Classification	Characteristics of Flood Hazard
Hazard 1	Flooding is this area is usually minimal and tends to affect roads, gardens and other low-lying areas. Floodwater is **typically shallow – up to 300mm deep** – and unlikely to cause much damage or pose a safety risk. Because of this, the flood hazard is considered low, and the area is **generally safe** for people, vehicles and buildings. Most types of development, including new homes and subdivisions – are suitable here with suitable design considerations. However, essential community services like hospitals may need extra consideration before being built in these locations.
Hazard 2	Flooding in this area can **reach depths of up to 0.5 metres**, which may pose a risk to small vehicles. While the floodwater is **generally safe** for able-bodied people, it can still be unpredictable and should be treated with caution. This is why the area is considered to have a **medium flood hazard**. New commercial and industrial buildings are usually suitable in these areas, but some housing may not be safe even if designed with flood protection in mind – like raised floor levels and safe access. These areas are not appropriate for increasing housing densities without appropriate flood protection measures. Thoughtful planning and design help make sure new development is safe and suitable for the area.
Hazard 3	Flooding in this area can **reach depths of up to 1.2 metres**. The water flow may be strong and could pose a risk – especially to children, older residents, and those needing extra support. Because of these conditions, the area is classed as a **medium flood hazard**. Building or renovating here requires careful planning. Land may still be able to develop but needs to be located/sited to avoid areas of higher hazard and designed with flood protection in mind. New buildings or subdivisions are discouraged without appropriate flood protection measures.
Hazard 4	Floodwaters in this area can be fast-moving and deep, with **depths of up to 2.0 metres**. These conditions make the area unsuitable for people and vehicles during flood events. Because of the **high flood hazard**, any new use of the land should be carefully considered, and dense development is **not recommended**. New buildings or subdivisions are discouraged. Areas such as parks or public open spaces are suitable.
Hazard 5	Floodwaters in this area can be very deep **up to 4.0 metres** – and may damage or destroy most types of buildings. Because of this, it is **not a safe location** for development. These areas are important for natural flood flow and flood storage, which help protect other parts of the community. The **flood hazard is high** and no intensification of land use or new buildings should occur. Prioritise the safety of the community and protect the environment.
Hazard 6	Flooding in this area **can exceed 4.0 metres in depth**, making it **unsuitable** for any buildings or development and makes the flood hazard in this zone **high**. These areas are critical for flood management and should remain untouched. Let the land perform its natural flood-control role. Prioritise the safety of the community and protect the environment.

H1 hazard characteristics:

Flooding here is usually shallow, it might pool in streets, gardens or driveways after heavy rain.

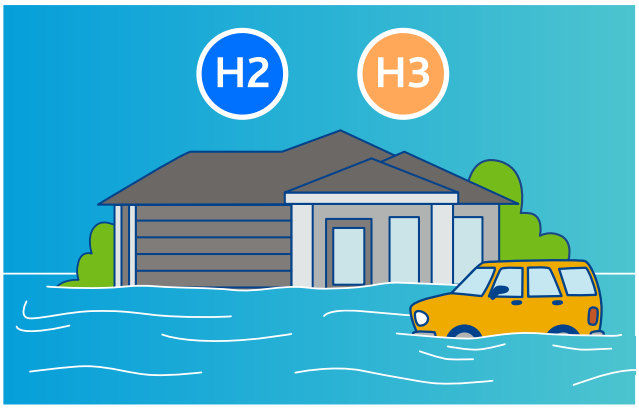
While homes are generally safe, flood depth may reach up to 300mm, meaning flood water can still make its way into homes. At this hazard classification, local drains or waterways can become overwhelmed which can affect parked cars, access or neighbouring properties.



Flooding ≤ 300mm

H2 and H3 hazard characteristics:

This level of flooding often happens near creeks or stormwater drains. Flood water can be deep enough to spread debris or damage fences and gardens and enter homes with low floor levels. This hazard area can also be unsafe for children and the elderly as water can get as deep as 1.2 meters. At this depth cars can float in floodwater and pose considerable risk to vulnerable people.

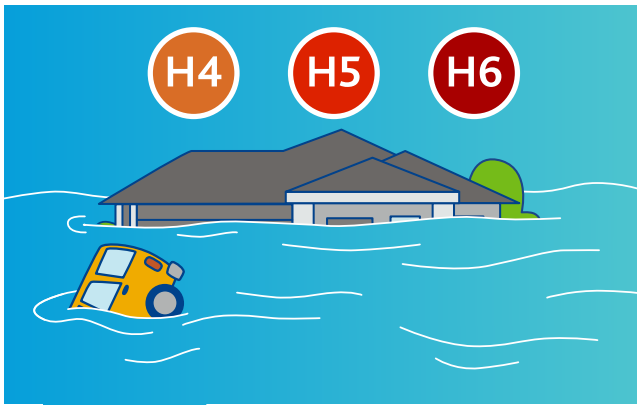


Flooding ≤ 1.2m

H4, H5 and H6 hazard characteristics:

These hazard areas are prone to deep and fast floodwater. These conditions are considered very dangerous for vehicles, people and property.

New residential, commercial and industrial development isn't recommended. If you live in one of these areas, ask Melbourne Water for advice before you consider any development.



Flooding ≤ 2m

Sarah's guide to living well in a H1 hazard area

Sarah was surprised to learn her area is affected by flooding. Her home isn't near a creek or river. But a H1 hazard doesn't mean no risk.

Here are some ways you can stay prepared for a H1 hazard flood:

Park your car on slightly higher ground if heavy rain is forecast

Keep gutters and drains clear

Look for signs of damp or drainage issues

Contact us We're measuring our engagement. To help us track our communications, please contact our team by phone **131 722** or email **enquiry@melbournewater.com.au**

Check local flood maps

Sign up for alerts via VicEmergency app

Van's smart renovation guide for a H2 and H3 hazard area

Van learned their area had a H3 flood hazard rating right before starting renovations. That information changed everything for the better.

Here are some factors to consider before developing:

Contact Melbourne Water for pre-development advice

Elevate floors or use split-level designs

Use water-resistant materials

Raise air vents, power points and hot water systems

Confirm your insurance policy reflects post-renovation value

Jason's checklist for creekside properties

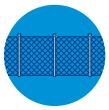
Jason always enjoyed the creek adjacent to his backyard. But he didn't realise that the flood hazard could vary across a single property.

Take a look at your property and consider some of these improvements to reduce flood risks:

Check your property's flood map: backyard vs house

Keep outdoor furniture away from the creek

Avoid storing chemicals or fuel in or near areas that flood



Install open style or wire mesh fencing along boundaries in the floodplain

Talk to Council and Melbourne Water before any major landscaping

Who can help

Before the flood

- Melbourne Water creates flood maps and manages large drainage systems
- Melbourne Water provides pre-development advice and controls appropriate development in flood-prone areas
- Council maintains local drains and issues planning guidance
- Bureau of Meteorology monitors forecasts and issues warnings
- Download the EMV app for alerts.

Contact us We're measuring our engagement. To help us track our communications, please contact our team by phone **131 722** or email **enquiry@melbournewater.com.au**

VICTORIA State Government | Melbourne Water

During the flood

- Victoria State Emergency Service (VICSES) manages evacuations and provides sandbags
- Council may close roads or open relief centres
- Melbourne Water monitors key drainage assets and waterways

After the flood

- VICSES provides assistance with emergency recovery and temporary shelter
- Council manages community recovery, clean-up and building inspections
- Melbourne Water reviews impacts and plans for the future

VicEmergency App

Get real-time warnings and emergency updates during storms and floods. You can customise alerts for your area and access evacuation info if needed. Make sure you 'allow notifications' even if your phone is on 'do not disturb'.

Download it for free on your phone or visit emergency.vic.gov.au.

Melbourne Water

Explore flood maps, check your hazard rating, and get practical advice on how to prepare your home or plan renovations.

Visit Building and home renovation | Melbourne Water

Your Local Council

Contact your council for help with drainage issues, flood planning or development applications. They can also connect you with community preparedness programs and local flood reports.