



W A V E R L E Y
C O U N C I L

WAVERLEY FLOOD STUDY – FREQUENTLY ASKED QUESTIONS

What is a Flood Study?

A Flood Study is a comprehensive investigation of flood behaviour within a catchment or study area (ie. Waverley LGA). It provides information about the nature of flood risk including levels, depths, extent and distribution of floodwaters for a range of storm events, including a 1% Annual Exceedance Probability (AEP) flood. When the flood study is complete it can help to manage potential risks of future floods to people, property and infrastructure.

A Flood Study forms the initial stage towards development of a comprehensive Floodplain Risk Management Study and Plan, in accordance with the NSW Floodplain Development Manual (2005).

Why is Council studying flooding?

Flooding can cause significant damage to property and risk to life. Under the NSW Government's Flood Prone Land Policy, all Councils are required to manage flood risk, including the preparation of flood studies to determine which land has the potential to be affected by flooding.

What is the 1% AEP flood event (100-year flood)?

A 1% AEP flood event (often referred to as the 100-year flood) is the flood that has a 1% probability of occurring in any given year. If you have experienced a 1% AEP flood event, it is still quite possible for you to experience another event of similar magnitude within your lifetime, as large flood events do occur randomly. Some parts of Australia have received two or three 1% AEP flood events within a few years of one another. On average, if you live to be 70 years old, you have a better than even chance of experiencing a 1% AEP flood event.

What is the Probable Maximum Flood (PMF)?

The PMF is the largest flood that could conceivably occur. It is typically estimated from Probable Maximum Precipitation coupled with the worst flood producing catchment conditions. While it is a rare and improbable occurrence, every property potentially affected by a PMF is considered to be on a floodplain and has some element of flood risk. Under the State Government's Floodplain Development Manual (2005), Councils must consider the full range of risk when managing floodplains.

What does Australian Height Datum mean (AHD)?

Australian Height Datum is a reference of the elevation of any object or point above mean sea level, which is taken as 0m AHD. All flood levels, floor levels and ground levels are given in meters AHD.

What is a floodplain?

A floodplain is any portion of land that is subject to inundation by floods up to and including the Probable Maximum Flood (PMF) event (or the highest conceivable flood that nature can produce).

How can I get detailed flood information for my property?

In 2005, the New South Wales Government put forward the updated Floodplain Development Manual which outlined the required method for Councils to manage flood liable land. A key objective in this manual is to undertake flood studies for appropriate catchments to provide detailed information on flood behaviour.

If your property is flood affected and you require flood levels or flood risk information for your property, you can submit a request for flood information to Council. Council will then provide you with property specific flood information letter that can be used to manage your risk and inform the design of your development proposal.

Why do flood levels and information need to be reviewed over time?

Flood behaviour, including flood levels, velocities and hazard is calculated using detailed computer models to simulate floods of varying magnitudes. These models may be reviewed periodically when:

- new data becomes available from new flood events
- flood mitigation works are undertaken
- developments occur, and
- more advanced computer models become available.

How are flood affected properties identified?

Council's flood modelling determines the extent of flooding throughout the catchment and the identification of properties impacted by flooding. When Council is in possession of reliable information regarding flooding, it is obliged to provide that information when asked. This consultation is one way for Council to advise affected property owners and residents of flood affected properties. Council is also required to notate S10.7 Planning Certificates for properties that are identified as flood prone.

My property was never classified as 'flood prone' or 'flood liable' before. Why is it now classified as being flood affected?

Over time as new data is received and new flood studies are adopted by Council, more flood liable land may be identified and mapped accordingly. Also, under changes to the NSW Government's Floodplain Development Manual in 2005, flood liable land became inclusive of land that is affected by the Probable Maximum Flood (PMF). Before this only land inundated by the 1% AEP flood level was considered.

If your property is now classified as flood affected, the real-world flood risks to your property is not likely to have changed; only that new information has been made available.

Can a flood affected property be developed?

Flood affected property may be developed if the proposed development meets the relevant standards and requirements. The applicable planning controls are largely determined by the proposed land use and the extent of flooding on your property.

If my property is identified as flood prone, what development controls are likely to apply?

A Local Environmental Plan (LEP) is a legal document which allows Council to regulate land use and development. They are prepared by Council and approved by the State Government.

A Development Control Plan (DCP) provides detailed planning and design guidelines to support the planning controls in the LEP. Sections of Council's DCP provide criteria for assessing applications for properties potentially affected by flooding. The above documents are available on Council's website.

Will my property value be altered if my property is flood affected?

Council cannot advise on the implications of flooding on property values. Generally, however, property values are based on a range of factors of which flooding is only one. Ultimately, the market determines the value of any residential property.

Will I be able to get house and contents insurance if my property is flood affected?

In 2012, a standard definition of flood was agreed upon by the Insurance industry. This is now known as:

The covering of normally dry land by water that has escaped or been released from the normal confines of:

- any lake, or any river, creek or other natural watercourse, whether or not altered or modified; or
- any reservoir, canal, or dam.

However, Insurance companies each have their own distinctive ways in which they calculate risk and determine insurance policy premiums. Many insurance companies will offer house and contents insurance, with each individual insurance company determining their own policy and conditions.

Flood insurance premiums generally reflect the level of flood risk at a property and the cost of repairing or rebuilding the property. In practice, this can be broken down to three factors which would be assessed by all insurers when setting a flood premium for a property:

- Likelihood of flooding;
- Expected depth of flooding relative to the insured building; and
- Expected cost of recovery.

Likelihood and depth of flooding are assessed at an individual address level, using results from computer flood modelling which simulates how water flows through a catchment. Expected cost of recovery includes repair, rebuild and replacement costs, temporary

accommodation, and other factors such as the potential shortage of materials and labour after a flood event. Some insurers may also consider property-specific information such as number of storeys, floor levels, building materials used and construction type.

Insurance policies and conditions may change over time or between insurance companies, and you should confirm the specific details of your situation with your insurer.

Floodplain Management Australia has developed [flood insurance fact sheets](#) to assist property owners in understanding the information surrounding this process.

Why can't flooding be prevented?

Flooding is a natural phenomenon that will always occur. Problems with flooding arise when development occurs in floodplains that does not take full account of flooding. Flooding can rarely be prevented but the risk to life and property posed by flooding can be managed.

How does Council maintain its stormwater drainage network?

Council owns and manages a significant number of stormwater pits, pipes, channels, culverts, basins and Gross Pollutant traps throughout the city and are committed to maintaining this infrastructure within the limits that current funding and resources permit. Council has an annual budget for cleaning and maintaining this infrastructure, as well as a budget for Capital Works (upgrading and building new infrastructure). All works are scheduled on a priority basis, where those works that are most critical become highest priority.

Why doesn't Council remove the vegetation that clogs up the creeks and waterways?

Although the impact of vegetation on flood behaviour is very important, vegetation has an essential function in managing erosion and providing habitat to wildlife. Unless identified within an adopted Floodplain Risk Management Study & Plan, the flood impacts associated with the removal of vegetation from creeks and waterways is relatively unknown. For example, carrying out such works may have little to no benefit in reducing flood risks. Alternatively, such works could reduce the flood risks in one area, whilst increase it in other areas. These issues are considered in the context of a Floodplain Risk Management Study.

Why is Council talking to the community about flooding?

The involvement of the local community is critical to successfully managing flood risk. This involvement has been ongoing through the preparation of the flood study. Council received valuable feedback from the community for this study in 2017 and 2018.

There will also be future opportunities for the community to be involved in the preparation and implementation of the Waverley LGA Floodplain Risk Management Study & Plan, which forms the next stage of the Floodplain Risk Management Process.