

My home

I thought my house was above the flood level?

Development controls for floor levels of new buildings in flood prone areas are set at the 'flood planning level' (FPL). The FPL is set by NSW Government Policy. The FPL is not the maximum level a flood could reach, therefore some flooding is always possible and even likely in some areas.

Why did my home flood on June 8, 2007?

There are many variables with flooding and every flood is different. It is not possible to make definite conclusions about causes or trends from personal observations even over a lifetime.

What properties are flood free?

Only land that is higher than all possible floods is flood free.

Will development controls change?

Council's development controls are based on computer flood models. These are not expected to significantly change even when all of the June 8 data is entered. The data collected from a range of sources, including the community, confirmed the predictive modelling.

Is my property flood affected?

To find out if your property is potentially flood affected, apply for a Flood Information Certificate by calling Council on 4974 2000 or download an application form from www.newcastle.nsw.gov.au.

Affect on property values?

This is a matter outside our control and Council cannot offer any comment for legal reasons.

Will my insurance pay if it happens again?

This is not a matter that Council can advise or comment on. This is matter between individual property owners and their insurance company.

Getting help

Flash flood warning system

Council and HWC are in the process of buying additional warning detection equipment (rain gauges and water level recorders) to supplement the Bureau of Meteorology warning system.

During extreme rainfall, the system will transmit information to the Bureau of Meteorology who will consider if warnings need to be issued. The Bureau will work closely with the State Emergency Services (SES) which is the emergency response agency in times of flood.

A flash flood warning system is only part of what's needed to reduce the risk to life in extreme events. An estimated 19,000 individual properties including homes and businesses across Newcastle could be affected by flooding.

It's up to all of us to understand what to do in such an emergency and to realise that no system is fail safe.

During an emergency

The State Emergency Services (SES) is the agency in charge in a flood emergency. Call 132500 to report or find out what you should do or listen to the radio.

After a flood

Council cleans up public areas while residents and businesses are responsible for cleaning their own properties. In the case of extreme, city-wide flooding like the June 2007 storms, Council will organise a special clean up service.

If in doubt, ring Council on 4974 2000.

Living with floods in Newcastle



Much of Newcastle was built on **natural floodplains**. In times of very heavy or extreme rainfall, nature reclaims these floodplains.

Newcastle's drainage system was built to **manage frequent, small** rainfall events. Upgrading the network to try to prevent flooding in large storm events would mean radical changes across the city. Such efforts would not only be **extremely costly** but would require major changes to the city, so flooding in extreme natural circumstances **cannot reasonably be prevented**.

However as a community we are working on **managing the risks**. This means **finding ways to live with**, rather than eliminating, those risks. Please note the following information refers to **large scale** flooding events.

Drainage in the City

Drainage infrastructure in Newcastle includes the network of drainage pits in the road gutters, pipes laid under the ground and open stormwater channels.

Newcastle City Council and Hunter Water Corporation are the two authorities responsible for this network.



Key contacts

Flood Warnings	Bureau of Meteorology	Ph: 1300 659218
In case of flooding	State Emergency Service	Ph: 132500
Flood Information Certificates S149 (Planning) Certificates Development and Planning enquires	Customer Enquiry Centre, City Administration Centre, 282 King Street, Newcastle	Ph: 02 4974 2030
Open channel drainage emergencies	Hunter Water Corporation	Ph: 1300 657000
Strategic Flood Management enquiries	Newcastle City Council	Ph: 02 4974 2000
Blocked drains in your street	Newcastle City Council Works Depot	Ph: 02 4974 6000
Ironbark Creek floodgates	Hunter Central Rivers Catchment Management Authority	Ph: 4930 1030

www.newcastle.nsw.gov.au

www.hunterwater.com.au



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Living with floods in Newcastle

Newcastle City Council

Council is responsible for the maintenance of drainage pits and underground pipes in your street. This includes over 430km of drainage pipes, 15,000m of culverts and 17,000 pits.



Flooding in Newcastle

Flooding is random and cannot be predicted. This means large floods can occur quite close together or decades apart. The key to protecting the community and minimising the risks during a flood is ensuring everyone is aware of what to do in an emergency. It is not possible to scientifically predict when the next flood will be or how big it will be.

Every flood will be different in size and affect areas in different ways.

The NSW Floodplain Management Manual requires councils to undertake a range of studies and develop a series of plans before looking to the State or Federal Governments for the funding to manage and reduce the risk of floods.



Council, with financial assistance from the State Government, has developed a draft Flood Risk Management Plan with recommended actions, timing and costs for flood management in the Wallsend catchment.

Draft computer flood modelling and maps showing flood hazards for the remaining flood affected areas of Newcastle and Hunter River are also being progressively developed.

These are scheduled for completion in 2008 and will allow Flood Risk Management Plans to be developed across the City. Implementation of the plans, once adopted by Council, will depend on Commonwealth and State Government funding.

Flood models

After the June 8 storms, around 1700 flood marks were identified across the city. Survey measurements of these marks are being taken to feed into computerised flood models. Similar data from severe flash flooding in 1988 and 1990 has already shown the reliability of the models. These are used to guide Council decisions in this area.

Flood level markers and road warning flood depth indicators will be placed in key locations around the city to help remind us all not to forget about the risks.

Can the city be “flood proof”?

Flood proofing Newcastle is an impossible task given our location on a natural flood plain. The city’s drainage system was only designed to cope with ‘normal’ rainfall.

Trying to build a drainage network to flood proof Newcastle would require massive changes to the city where many suburbs would be unrecognisable.

For example to prevent flooding in the central business district of Wallsend during an extreme flood event would mean widening the existing storm water channel from 17 metres to 120 metres and building one metre high containment walls along its length. This is not a reasonable solution as it would severely affect the suburb’s business district and would probably transfer the problem downstream.

Will clearing creeks prevent flooding?

Clearing creeks to enable more water to flow will not prevent flooding during extreme rain. Like storm water drains, natural creeks can only take so much rain before they overflow regardless of any debris or vegetation. In contrast, removing vegetation from creeks increases erosion from banks which causes significant structural problems with the creek.

Vegetation removal also undermines the health of waterways by removing natural filtration which improves water quality downstream. Maintenance of creeks is regulated to control the removal of vegetation or habitats.

Holding the floodwaters upstream

Holding floodwaters back in the upper reaches of catchments would require a huge investment in infrastructure with no guarantee of success. Levies and other similar solutions would mean sacrificing open spaces and playing fields in those communities and could introduce new more significant risks if the solution ‘fails’ under heavy rain.

Blocked drains

Investigations show blockage by leaves and other debris is not usually the cause of flooding. Most often the water simply cannot get away because the drains further downstream are already full.

In the June 2007 event, one channel was partially blocked by a shipping container while cars and other objects were also swept into drains. According to experts this would have only had marginal impact on the back up of water.

Even when all channels and drains are perfectly maintained between floods, trees, fence sheeting, cars and containers will be swept into them causing blockages.



During storms and torrential rain, emergency personnel including Council staff need to focus on the safety of people over property damage. Clearing blocked drains is therefore not a priority during a flood event.

Council staff identify blocked drains and pits during regular patrols throughout the year and will clear any blockages as they are found.

If residents find blockages, they should report them to Council’s Waratah Works Depot on 4974 6000.

Will more pits and pipes help?

In most areas where flooding occurred in the June 2007 storms and again in the February 2008 storms, the downstream drains were overwhelmed by the volume and intensity of the water flow.

These drains were never designed to carry this amount of water especially in low lying and flat areas or where several flow paths converge.

Council is working on identifying areas where additional pits or pipes may assist without making flooding worse somewhere else. Once identified, Council will prioritise these in its works program.

Flooding and development

Council has controls in place to try to minimise how existing and new developments will impact on flooding. Reducing the impact of run off from buildings and homes and ensuring appropriate measures are in place to manage excess water is a requirement for all new development.

Did climate change cause the June 8 storm?

Council’s computer flood models show even without the effects of climate change the June 8, 2007 storms and resulting flooding were not the largest floods that can occur across the city.

Council’s long term planning takes into account estimated increased chances of flooding occurring from anticipated climate change and estimated sea level rises.

Parts of the network date back more than a hundred years meaning the condition of the system varies from poor to excellent.

Council has an infrastructure program dedicated to maintaining and improving Newcastle’s drainage system, but even the most elaborate and extensive drainage systems would not prevent flooding such as Newcastle experienced during June 2007.

For more information visit www.newcastle.nsw.gov.au

How much does Council spend on drainage?

Council has increased spending on drainage infrastructure to approximately \$2.5million per year. This includes funding from the Stormwater Management Service Charge which was introduced in 2007/2008.

The charge funds planning, construction and maintenance of storm water and drainage infrastructure. Eleven projects were funded in 2007/08. These are mainly for cleaning up and removing significant blockages and debris from Council’s drainage system as well as treating storm water to improve water quality and health of local natural creeks.

Hunter Water Corporation

HWC is responsible for maintenance of existing stormwater channels as well as managing access, new connections and land matters.



Maintenance of channels includes removing debris, mowing, slashing, weed spraying, maintenance and cleaning of floating boom traps and removal of graffiti. Assessing the condition of the channels and proposals for rehabilitation works is also a HWC responsibility.

HWC ensures the land between stormwater assets and adjoining properties is stabilised and clear of third party obstructions and also makes sure there is appropriate public safety signage in place in order to control access.

For more information visit www.hunterwater.com.au