

# Development Control Plan 54

*Managing our Flood Risks*

Fact Sheet

FEBRUARY 2004



## FREQUENTLY ASKED QUESTIONS

### **Why does Flooding Occur?**

Flooding is a natural process that occurs periodically as a result of rainfall events in a catchment. The effects of flooding in Wollongong (and many other urban areas in New South Wales) are magnified by the proximity of urban development to natural and modified creeks and channels. The banks of creeks and channels are exceeded in flood events with flow being conveyed through properties, via streets or ponding.

### **Why do councils prepare floodplain management studies and plans?**

Under NSW legislation, councils have the primary responsibility for management of development within floodplains. To appropriately manage development, councils need a strategic plan which considers the potential flood risks and balances these against the beneficial use of the floodplain by development. To do this, councils have to consider a range of environmental, social, economic, financial and engineering issues. This is what happens in a floodplain management study. The outcome of the study is the floodplain management plan, which details how best to manage flood risks in the floodplain for the foreseeable future.

Floodplain management plans normally comprise a range of works and measures such as:

- improvements to flood warning and emergency management;
- works (e.g. levees or detention basins) to protect existing development;
- voluntary purchase or house raising of severely flood-affected houses;
- planning and building controls to ensure future development is compatible with the flood risks; and
- measures to raise the community's awareness of flooding so that they are better able to deal with the flood risks they face.

### **How have the flood risk maps been prepared?**

Because some large and rare floods have often not been experienced since European settlement commenced, computer models are used to simulate the depths and velocities of major floods. These computer models are normally established and operated by flooding experts employed by local and state government authorities. Because of the critical importance of the flood level estimates produced by the models, such modelling is subjected to very close scrutiny before flood information is formally adopted by a council.

Maps of flood risks (e.g. 'low', 'medium' and 'high') are prepared after consideration of such issues as:

- flood levels and velocities for a range of possible floods;
- ground levels;
- flood warning time and duration of flooding;
- suitability of evacuation and access routes; and
- emergency management during major floods.

### **My property is in a Low Flood Risk Precinct. What does this mean?**

Generally it means that your property would not be inundated in a 100 year flood but still has a very slight chance of inundation from larger (i.e. rarer) floods.

If you are a residential property owner, there will be virtually no change to how you may develop your property. However, there may be controls on the location of essential services such as hospitals, evacuation centres, nursing homes and emergency services.

### **My property is in a Medium Flood Risk Precinct. What does this mean?**

Generally it means that your property is inundated in a 100 year flood, however conditions are not likely to be hazardous. If you are a residential property owner development controls will probably be similar to those that currently exist (ie prior to DCP54).

### **My property is in a High Flood Risk Precinct. What does this mean?**

Generally it means that your property will be inundated in a 100 year flood and that hazardous conditions may occur. This could mean that there would be a possible danger to personal safety, able bodied adults may have difficulty wading to safety, evacuation by trucks may be difficult, or there may be a potential for significant structural damage to buildings. This is an area of higher hazard where stricter controls may be applied.

### **Will my property value be altered if I am in a Flood Risk Precinct?**

Any change in a council's classification of properties can have some impact on property values. Nevertheless, councils normally give due consideration to such impacts before introducing a system of flood risk classifications or any other classification system (e.g. bushfire risks, acid sulphate soil risk, etc). If your property is now classified as being in a Flood Risk Precinct, the real flood risks on your property have not changed, only its classification has altered. A prospective purchaser of your property could have previously discovered this risk if they had made enquiries themselves.

If you are in a Low Flood Risk Precinct, generally there will be no controls on normal residential type development. Previous valuation studies have shown that under these circumstances, your property values will not alter significantly over the long term. Certainly, when a new system of classifying flood risks is introduced, there may be some short-term effect, particularly if the development implications of the precinct classification are not understood properly. This should only be a short-term effect however until the property

market understands that over the long-term, the Low Flood Risk Precinct classification will not change the way you use or develop your property.

Ultimately, however, the market determines the value of any residential property. Individual owners should seek their own valuation advice if they are concerned that the flood risk precinct categorisation may influence their property value.

### **My property was never classified as 'flood prone' or 'flood liable' before. Now it is in a Low Flood Risk Precinct. Why?**

The State Government changed the meaning of the terms 'flood prone', 'flood liable' and 'floodplain' in 2001. Prior to this time, these terms generally related to land below the 100 year flood level. Now it is different. These terms now relate to all land that could possibly be inundated, up to an extreme flood known as the probable maximum flood (PMF). This is a very rare flood.

The reason the Government changed the definition of these terms was because there was always some land above the 100 year flood level that was at risk of being inundated in rarer and more extreme flood events. History has shown that these rarer flood events can and do happen (e.g. the 1990 flood in Nyngan, the November 1996 flood in Coffs Harbour, the August 1998 flood in Wollongong, the 1998 flood in Katherine, the 2002 floods in Europe, etc).

### **Why do flood levels change over time?**

There is a chance that floods of various magnitudes will occur in the future. As the size of a flood increases, the chance that it will occur becomes rarer. Because some of these rare floods have never been experienced since European settlement, the height of future floodwaters is normally predicted using computer models. These computer models simulate flood levels and velocities for a range of flood sizes and flood probabilities. Given the importance of estimating flood levels accurately, councils and the NSW Department of Infrastructure Planning and Natural Resources (DIPNR) engage experts to establish and operate the computer models.

From time to time the computer models are revised and predicted flood levels can change. The resultant change in flood levels however is normally very small. The reasons why the computer models are revised can include:

- new rainfall or ground topography information becomes available;
- new floods occur which provide additional data from which to fine-tune the models;
- better computer models become available as the science of flood modelling improves and computer capabilities increase; or
- flood mitigation works may have been carried out, or development within the catchment may have occurred, that was not previously simulated in the models.

## **Will I be able to get house and contents insurance if my house is in a Flood Risk Precinct?**

In contrast to the USA and many European countries, flood insurance is generally not available for residential property in Australia. Following the disastrous floods in Coffs Harbour in November 1996 and in Wollongong in August 1998, some insurance companies are now offering very limited flood cover. The most likely situation is that your insurer does not offer you flood cover. If limited flood cover is offered, the classification of your property within a Flood Risk Precinct is unlikely to alter the availability of cover. Obviously 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.

## **Will I be able to get a home loan if my land is in a Flood Risk Precinct?**

Most banks and lending institutions do not account for flood risks when assessing home loan applications unless there is a very significant risk of flooding at your property. The system of Flood Risk Precinct classification will make it clear to all concerned, the nature of the flood risks. Under the previous system, if a prospective lending authority made appropriate enquiries, they would have identified the nature of the flood risk and considered it during assessment of home loan applications. As a result, it is not likely that the classification of your property within a Flood Risk Precinct will alter your ability to obtain a home loan. Nevertheless, property owners who are concerned about their ability to obtain a loan should clarify the situation with their own lending authority.

## **What is the probable maximum flood (PMF)?**

The PMF is the largest flood that could possibly occur. It is a very rare and improbable flood. Despite this, a number of historical floods in Australia have approached the magnitude of a PMF. Every property potentially inundated by a PMF will have some flood risk, even if it is very small. Under the State Government changes implemented during 2001, councils must now consider all flood risks, even these potentially small ones, when managing floodplains. As part of the State Government changes, the definitions of the terms 'flood liable', 'flood prone' and 'floodplain' have been changed to refer to land inundated by the PMF.

## **What is the 100 year flood?**

A 100 year flood is the flood that will occur or be exceeded on average once every 100 years. It has a probability of 1% of occurring in any given year. If your area has had a 100 year flood, it is a fallacy to think you will need to wait another 99 years before the next flood arrives. Floods do not happen like that. Some parts of Australia have received a couple of 100 year floods in one decade. On average, if you live to be 70 years old, you have a better than even chance of experiencing a 100 year flood.

### **Will the Flood Risk Precinct maps be changed?**

Yes. All mapping undertaken by council is subjected to ongoing review. As these reviews take place, it is conceivable that changes to the mapping will occur, particularly if new flood level information or ground topography information becomes available, or significant flood mitigation works are completed that may reduce flood hazards.

However, this review is not expected to occur very often and the intervals between revisions to the maps would normally be many years. Many councils have a policy of reviewing and updating floodplain management studies and plans about every five years. This is the likely frequency at which the maps may be amended.

### **Why are there different sets of controls for different catchments?**

The controls may differ depending on the local circumstances. For example, the dynamics of the flood risk in Hewitts Creek catchment in the north are quite different from the flood dynamics in Mullet Creek catchment in the south. Localised sets of planning controls are aimed to ensure appropriate proposals are developed for the local dynamics and risks of flooding.

### **What catchments have specific planning controls?**

To date, a Floodplain Risk Management Study and Plan has been completed and adopted for the Hewitts Creek study area (including Slacky, Tramway, Woodlands, Hewitts and Thomas Gibson Creeks) and the Towradgi Creek system, which includes unique sets of planning controls for those catchments, consistent with the draft DCP.

Significant progress has been made for other catchments including the Fairy/Cabbage Tree Creek, Allans Creek, Mullet Creek and Minnegang Creek. Studies for the remaining catchments in the LGA will progress and catchment specific planning controls will be annexed to the DCP once catchment studies become final and adopted by Council.