

ARE RESIDENTIAL PROPERTY VALUES ADVERSELY AFFECTED BY DISCLOSURE OF FLOOD RISK?

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ABSTRACT

Although local councils may accept a duty of care to inform residents about their level of exposure to flooding, good intentions may not be realised due to the widely-held fear that disclosure will adversely affect residential property values.

By a comprehensive review of the international and local research findings, this paper addresses the question, 'Does disclosure affect residential property values?'

Evidence for the effects of disclosure on residential property values is mixed. Several studies from the United States found that flood-prone properties were valued 4-12% less than equivalent 'flood-free' properties. Others found no significant difference. Evidence for the devaluation of flood-prone properties upon disclosure is weak – most studies found no change. In fact, actual flooding is much more likely to trigger an adverse effect than floodplain designation or regulation, with property values typically falling by 20% for several months, and in the worst cases by up to 60% for several years. However, in places where demand is strong, even actual flooding may have little or no effect (e.g., Georges River, Sydney, after flooding in 1986 and 1988).

The balance of evidence suggests that the fears are over-rated. The benefits of disclosure for planning and public education outweigh the risks of adverse effect. A carefully constructed disclosure process further reduces that risk.

1. A DISPUTED ISSUE

What is disclosure?

Disclosure is generally taken to mean some sort of public revelation of flood liability. Forms of disclosure in New South Wales include floodplain maps, flood markers, household information sheets and flood data downloadable from the Internet (e.g., Lismore City Council, 2004). A more limited means of disclosure is via Section 149 certificates under the Environmental and Planning Assessment Act (1979), which record any flood-related development controls pertaining to a particular property.

Why disclose?

A fundamental reason for disclosure is a duty of care. This is recognised in the *Floodplain Management Manual* (p.K-10): 'Councils have a duty of care in advising property owners, occupiers and developers on the extent and level of flooding'. It was this recognition of Council's duty of care that prompted Lismore City Council to make flood information public. They recognise the benefits of ready access to flood information for property owners, prospective purchasers, banks and other lending institutions (Druery et al., 2002).

The NSW State Emergency Service is mandated to collate, assess and publicly disseminate information relating to floods (*State Emergency Service Act 1989*, Section 12(3)).

Why not disclose?

However, there is a widespread belief that residential property values are adversely affected by the disclosure of flood liability. This fear was tapped (and probably inflamed!) by a leaflet distributed in the lead-up to the 1984 NSW state election, which claimed that property values could fall by up to 50% following floodplain mapping (Handmer, 1985). Evidence from floodplain management studies suggests that this perception continues today. One respondent to a community survey argued that compensation for lost value should be available if the flood rating on his street was changed.

An international review

Is there any validity to this perception of adverse effect? This paper addresses the question, 'Does disclosure affect residential property values?' A comprehensive review of the international research was undertaken, with most studies coming from the United States, and lesser numbers from Canada, New Zealand and Australia.

2. THE EFFECTS OF DISCLOSURE

Are flood-liable properties valued below 'flood-free' properties?

A number of studies from the United States have compared the value of flood-liable properties to 'flood-free' properties. About 60% of these studies found that flood-liable properties were valued below 'flood-free' properties, by between 4 and 12%. However, the other 40% of studies found no significant differentiation of property values according to flood risk.

Are flood-liable properties devalued upon disclosure?

In only one study is there evidence for the devaluation of flood-liable properties upon disclosure – this study assessed property values in Sydney's Georges River district. The 25% decline of property values in 1984 was interpreted as a response to the release of floodplain maps, and the recovery of property values in 1985 was interpreted as a response to their withdrawal. However, the annual data are too coarse to allow confident interpretation, and other factors were probably involved. Importantly, the bulk of studies found no change in property values upon disclosure. A study of the effect of flood notification on Section 149 certificates in Sydney's Blacktown, Penrith and Hawkesbury council areas found that the robustness of the housing market was such that individual property characteristics were stronger determinants of price than flood notification (Egan National Valuers, 2000).

Flooding often causes an adverse effect

An undisputed finding from the literature is that actual flooding is more likely to adversely affect property values than floodplain designation or regulation. Following flooding, property values typically fell by 20% for several months, and in the worst cases by up to 60% for several years. Factors that influenced the magnitude of decline and length of recovery were the depth of floodwaters, extent of damage, market expectation, and supply-demand. Interestingly, even properties situated above the flood were not immune from some adverse effect.

Flooding may have little effect where other factors dominate

Flooding of Sydney's Georges River Valley in 1986 depressed property values for a couple of months only. It was found that high population growth and consequent housing shortage resulted in 'a buoyant market remarkably resilient to external influence', which 'tended to obscure any serious, permanent impact upon the market' (Lambley & Cordery, 1997, p.6).

Summary

Evidence for the effects of disclosure on residential property values is mixed. This is not surprising given the variety of data sources and methods of analysis. All studies are constrained by an inability to completely isolate the effects of flood-liability from the host of other factors influencing property values. The interplay of these factors means that research results are to a degree site-specific and not readily transferable. It may be significant that those studies finding a significant difference between flood-labile and 'flood-free' property values are nearly all taken from the United States, where the National Flood Insurance Program may act as a vehicle to enhance the capitalization of flood risk. No such vehicle is (yet) at work in the Australian market.

In my view, the balance of evidence suggests that the fear of adverse effect upon disclosure is over-rated, particularly in the context of a booming property market. In the unlikely event that disclosure does cause an adverse effect, it could be argued that disclosure simply brings forward a correction that would inevitably occur after the next flood.

3. IMPLICATIONS

If the decline in Georges River property values in 1984 was indeed a result of the release of floodplain maps (the evidence is not conclusive), then it is important to consider why that disclosure process led to a negative impact. Similarly, it is informative to consider why there was no backlash when Georges River residents were notified of their flood-liability in 2002 (see Bewsher & Maddocks, 2003). Much can be gleaned by careful assessment of past disclosures, both failures and successes.

First, it is vital to have best-practice flood risk assessment. Implausible maps will do nothing for public confidence. Incorporating residents' comments in the calibration of actual floods makes it difficult to dispute the model's depiction of design events – consultation is a key to gaining community acceptance even in the flood study component of the floodplain management process.

Just as important is a well thought-out plan for risk communication. The *content* of disclosure is important. A graduated classification system (e.g., high, medium, low flood risk precincts) is better than the confrontational 'in' or 'out' maps that were released in the early 1980s. The *timing* of disclosure is also influential. Adverse impacts can be minimised when community awareness is already high (e.g., soon after a flood) or when the property market is particularly robust. The *degree of consultation* in the disclosure process is again vital. In the Georges River in 2002, the notification process was just one part of a suite of genuinely consultative measures (Bewsher & Maddocks, 2003).

4. CONCLUSION

Does disclosure adversely affect residential property values? The global literature indicates that it could do so, but the more likely result is that it would not. A good example of a response to the frequently-asked question, 'Will my property value be altered if I am in a Flood Risk Precinct?', is reproduced in Figure 1, taken from Wollongong City Council's draft DCP 54. Clearly this is a balanced, carefully-scripted document: it is appropriately sober ('can have some impact on property values') yet also provides the perspective that allays anxiety ('may be some *short-term* effect'). It also contains the critical message that whatever the designation of the property, the *real* flood risks have not changed.

Nevertheless, the research does indicate that community perceptions can influence property values, so it follows that those who shape perceptions need to be responsible. The election leaflet distributed in 1984 presents a stark contrast to the Wollongong DCP. An alarming forecast of a reduction in property values of up to 50% was irresponsible, and may have become partly self-fulfilling! This review suggests that community leaders have good reason to downplay the (remote) possibility of adverse effect, and to 'talk up' the market.

FIGURE 1: WOLLONGONG CITY COUNCIL DCP 54: MANAGING OUR FLOOD RISKS

Source: www.wollongong.nsw.gov.au/Downloads/Documents/DCP54_fact_sheet.pdf

Wollongong City Council 2004
Draft Development Control Plan 54: *Managing Our Flood Risks*
Public Exhibition Fact Sheet: February 2004

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.

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DISCLAIMER

Opinions expressed in this article are those of the author and do not necessarily reflect those of Emergency Management Australia. Agencies should seek legal and or other advice prior to disclosing the flood liability of specific properties.

REFERENCES

- Bewsher, D. & Maddocks, J. 2003. 'Notifying residents of the PMF: wise practice or political suicide?', 43rd Annual Floodplain Management Authorities of NSW Conference, February 2003, Forbes, NSW. [www.bewsher.com.au]
- Druery, B., McConnell, D., Ross, C. & Moorhouse, B. 2002. 'Making flood data accessible', 42nd Annual Floodplain Management Authorities of NSW Conference, April-May 2002, Kempsey, NSW.
- Egan National Valuers (NSW Pty Ltd) 2000. 'Valuation study: assessment of the impact of planning controls and public notifications regarding flood risk upon property values', Report prepared for the Hawkesbury-Nepean Floodplain Management Strategy Steering Committee (unpublished).
- Handmer, J.W. 1985. 'Flood policy reversal in New South Wales, Australia', *Disasters*, 9, 279–285.
- Lambley, D. & Cordery, I. 1997. 'The effects of catastrophic flooding at Nyngan and some implications for emergency management', *Australian Journal of Emergency Management*, 12(2), 5-9.
- Lismore City Council. 2004. Lismore Flood & Floor Levels December 1996 (Amended Jan 2004) [www.lismore.nsw.gov.au]
- Yeo, S.W. 2003. 'Effects of disclosure of flood-liability on residential property values', *Australian Journal of Emergency Management*, 18(1), 35-44. [www.ema.gov.au]