

SO JUST HOW EXCEPTIONAL IS FAIRFIELD? CONTESTING THE 100 YEAR ARI PLUS 0.5 METRE FLOOD PLANNING LEVEL

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Abstract

In August 2006, the then NSW Minister for Planning, Frank Sartor, was interviewed on radio station 2GB regarding the community outrage caused by Blacktown City Council's decision to notify property owners of flood affectation up to the probable maximum flood. Mr Sartor argued that only the 100 year ARI flood should be used for planning purposes and there should be no controls on residential development above this. This was subsequently confirmed in a Section 117 ministerial direction issued on 31 January 2007.

This direction was essentially a repudiation of the longstanding merits-based approach to setting flood planning levels (FPLs) and caused much consternation amongst floodplain managers. The direction did however allow councils to nominate a different FPL by putting forward a case for exceptional circumstances based on unique local flood behaviour or flood history.

Fairfield City Council fundamentally disagreed with the Department of Planning's position and consequently decided to submit a case for exceptional circumstances. Council argued on the basis of the level of flood affectation, history of severe flooding above the 100 year ARI, the increase in predicted flood damages above the 100 year ARI and the potential impact of climate change and failure of flood detention basins. The benefits of a planning matrix approach, the predicted limited impact on development potential, an active floodplain management committee and good community consultation processes were also highlighted as reasons for retaining existing development controls above the 100 year ARI.

It is hoped that Council's case can serve as a starting point for other councils that might consider submitting their own submission to overturn what is poor state government policy. Moreover, it presents an opportunity for floodplain managers and landuse planners to collaborate and lobby the state government to improve planning legislation and address the current contradictions, gaps and inconsistencies between floodplain management and land use planning frameworks.

Introduction

In August 2006, the then NSW Minister for Planning, Frank Sartor, was interviewed by Ray Hadley on Sydney radio station 2GB regarding Blacktown City Council's decision in June 2006 to notify about 16,000 property owners of flood affectation up to the probable maximum flood (PMF).

Blacktown City Council was one of the first councils in NSW to notify all property owners who were affected up to the PMF in accordance with the requirements of the NSW Government's Flood Prone Land Policy. This notification followed the updating of floodplain mapping across the Blacktown local government area and was part of the public exhibition of a draft Blacktown Development Control Plan that contained revised controls related to flooding.

The notification of flood affectation caused considerable outrage within the community as reported in the local media (for example, Arblaster 2006 and Shaw & Arblaster 2006). Much of the media coverage was similar but on a smaller scale to that which occurred more than a quarter of a century earlier following the publication of statewide flood maps by the NSW Government.

As reported by Grech and Bewsher (2007), Mr Sartor stated during the radio interview, that 'for planning purposes we only ever use the 1 in 100 year'. Mr Sartor essentially argued that there should be no controls on residential development above this level. By early September 2006, following further community and political pressure, this position was reinforced by the then Director-General of Planning, Sam Haddad (Thomas 2006).

Mr Sartor's position was subsequently confirmed in a planning circular, Section 117 ministerial direction and accompanying guideline that were simultaneously released by the Department of Planning in January 2007 (DOP 2007). Specifically, the guideline stated that councils should adopt the 100 year ARI flood as the flood planning level (FPL) for residential development and should not impose flood related residential development controls on land above this FPL. The only reason given for introducing these changes was that they were in response to community concern over notations about low flooding risk being included on section 149 planning certificates.

The ministerial direction caused considerable consternation among floodplain managers. Keys (2008) called it a repudiation of the longstanding merits-based approach to setting flood planning levels while Grech & Bewsher (2007) argued that it represented a misunderstanding of floodplain management principles that had resulted from a failure to have planners 'on-board' in the floodplain risk management process. The Floodplain Management Authorities of NSW believed that the direction was effectively an abandonment of the flood risk management approach and a return to a prescriptive approach, which failed to recognise the importance of flooding greater than the 100 year ARI event (Ezzy 2007).

The DOP guideline did, however, allow councils to put forward a case for using a different FPL for the control of residential development based on exceptional circumstances, specifically local flood behaviour, flood history, associated flood hazards or a particular historic flood.

Fairfield City Council fundamentally disagreed with the ministerial direction and believed, like other floodplain managers, this was not good government policy. Council subsequently decided to contest the ministerial direction and to submit a claim for exceptional circumstances. The claim was formally lodged with the Department of Infrastructure and Planning, and the Office of Environment and Heritage in April 2011.

The intention of this paper is to set out the basis for Fairfield City Council's claim for exceptional circumstances in order to assist other councils that may decide to apply. The paper begins with an examination of how the ministerial direction essentially contradicts the merits-based approach and how it jeopardises the safety of people living within low flood risk areas.

The paper then documents the history of flooding with Fairfield City and explains how Fairfield City Council approaches floodplain management to minimise the risk of adverse community reaction while ensuring resident safety. The implications of the ministerial direction for current studies in Fairfield are also discussed.

The paper concludes with some comments on councils' duty of care to their local communities, the implications for future development and emergency response, and the interaction between floodplain managers and urban planners.

The Merits-Based Approach to Floodplain Management

To understand the problems with the 2007 ministerial direction it is instructive to briefly review the changes that have occurred in floodplain management policy and practice in NSW over the past three decades. One of the more significant changes has been the move from the simplistic setting of FPLs to a broader, more comprehensive merits-based approach that considers flood risks within individual floodplains up to the PMF.

The 100 year ARI flood level became the effective standard for planning purposes in NSW following a series of NSW Government circulars that were released in 1977. Following considerable adverse community reaction to published flood maps the NSW Government implemented a 'merits-based' approach to floodplain management in 1984, which was espoused in the government's first Flood Prone Land Policy. The 1984 policy, as documented in the 1986 Floodplain Development Manual, specifically noted the deletion of the 100 ARI year definition of flood prone land. That is, the 100 year ARI flood ceased to apply as a blanket standard across NSW – a change that Grech & Bewsher (2007) believe has been overlooked by many for the past 20 years or so.

The 1984 policy and 1986 manual were updated with the release of the 2001 Floodplain Management Manual. The updated policy clarified that the merits-based approach should be adopted when selecting appropriate FPLs. Partly as a result of the estimated 250 year ARI flooding of the Bogan River at Nyngan in 1990, the policy also emphasised the need to address the continuing flood risk up to the PMF.

The need to address the risk of floods greater than the 100 year ARI is well documented at a national level (refer ARM CANZ / SCARM 2000 and EMA 1999). Bewsher & Maddocks (2003) go so far as to contend that 'rare floods are common' by identifying seven floods greater than the 100 year ARI that have occurred between 1975 and 1998. The recent severe flooding in Brisbane and Toowoomba has also highlighted the need to consider both mainstream and overland floods greater than the 100 year ARI.

The 2001 Manual was updated with the release of the 2005 Floodplain Development Manual, which continues the practice of addressing the full range of flood risks:

The definition of the floodplain and flood prone land is based on the PMF event and not on the more limited flood planning area. In this way, the community will be receptive to take action in a flood event than if they thought they were completely protected from flooding by development controls of works.

Somewhat equivocally however, the policy in the 2005 manual has been modified to state that FPLs for typical residential development would generally be based around the 1% AEP event plus an appropriate freeboard. Grech & Bewsher (2007) suggest that this may have been included to counter perceptions that the increased reference to the PMF would lead to attempts to replace the 100 year ARI flood standard. Along with the change of the manual's title from 'management' to 'development', the reference to the 100 year ARI FPL may have been included to ensure residential development was not unnecessarily stymied by flood related development controls in low flood risk areas.

Grech & Bewsher (2007) believe that, although the FPL for residential development could legitimately be (and is commonly) determined to be the 100 year ARI flood level plus freeboard, the inclusion of this direction within the policy conflicts with the intent to allow FPLs to be determined by councils and their communities, having regard to the individual circumstances and merits of each floodplain. They suggest that those who drafted the 2005 policy believed that the merits-based approach as originally espoused in the 1984 policy cannot be relied upon to consistently deliver good policy outcomes, or alternatively, that the flood risk management process is still not fully understood. The ministerial direction of January 2007 can be viewed in the same light.

The need for flexibility in setting FPLs is acknowledged by the EMA (1999) which states that design flood events that are set for planning and control should not be predetermined but should emerge from the risk management analysis itself. This again is consistent with the NSW Government's merits-based approach and also risk management guidelines outlined in AS / NZS 4360:2004. Ezzy (2010) agrees that the FPL should be determined on a catchment basis rather than on the basis of a standardised ARI.

In addition to the above issues, there are other more fundamental concerns with setting a single FPL. These are well summarised by Romano et.al. (1999) and are based on the fact that it is difficult for councils to apply the diverse suite of development controls available (for example, controls on floor levels, emergency response, building design, etc) to the full range of flood risks, using only a single FPL.

To counter these problems, Fairfield City Council and many other councils have adopted a planning matrix approach to controlling development which does not rely on the definition of a single FPL. This planning matrix approach was first developed in 1997 as part of the Hawkesbury–Nepean Floodplain Management Strategy and continues to be recommended today (DNR 2006).

The history and application of the planning matrix approach to development control in Fairfield City is discussed below. Notwithstanding the above issues, it is important to note that Fairfield City Council has, to date, adopted the 100 year ARI flood level plus 500 mm freeboard for the majority of the development controls contained within the planning matrix.

Interpreting the Department of Planning Guideline

DOP (2007) states that the guideline on developments on low risk area should be read as part of the Floodplain Development Manual and that councils will need to follow both the manual and the guideline in order to gain liability protection under Section 733 of the *Local Government Act 1993*. These statements suggest that the principles of the guideline and the manual are consistent when, in the opinion of the authors and others (e.g. Ezzy 2010), they are not.

DOP (2007) notes in the guideline that the safety of people is one of the key issues that should be considered in the floodplain management process. DOP go on to note that, despite stating development controls should not apply in areas above the residential FPL, the safety of people and associated emergency response management needs to be considered.

Fairfield City Council believes that floodplain risk management issues need to be considered for all residents within the floodplain, not just those in high and medium risk areas. This is particularly relevant due to the fact that SES and other emergency response agencies will rely on the majority of residents to self-evacuate in the event of any flood. Without the application of certain development controls regarding flood warning and evacuation, people in low flood risks areas are less likely to respond to evacuation directions and are less likely to know what to do. This ultimately compromises the safety of those people during floods.

Not permitting development controls to be applied in low risk areas also ignores the fact that many vulnerable residents, for example, seniors or disabled people, live in normal residential dwellings rather than purpose-built group homes or seniors living accommodation that are subject to flood controls. For instance, the aggregated number of seniors living in this situation in Fairfield City is likely to be much higher than those living in purpose-built accommodation.

Although not currently a control in Fairfield, many councils ask for flood compatible building materials and techniques to be used in residential building construction in low flood risk areas. The use of flood compatible building materials and techniques, although costing slightly more, can help ensure public safety if people are to take shelter in their building during major floods. It can also significantly reduce property damage during flooding and clean-up costs afterwards.

History and Severity of Flooding in Fairfield City

Fairfield City is located in western Sydney and extends over 100 square km from Prospect Creek and the Georges River in the east to the rural residential areas within the catchment of the Hawkesbury–Nepean River in the west. The city is home to a diverse community of about 190,000 people making it one of the most populous local government areas in NSW. Over 80 km of creeks cross the city, making the creeks and the riparian corridors that adjoin them, the city's most important natural assets.

The creeks and the heavily urbanised local catchments draining to them are however, prone to flooding. The flooding risk in Fairfield City is created by a combination of geography, urban development patterns and the historic delineation of local government boundaries. These conditions taken together have made Fairfield City one of the most flood affected and vulnerable urban areas in NSW.

Twenty-one mainstream floods have been recorded in Fairfield City since 1809. Floods that occurred in the latter half of the 19th century were of much greater magnitude than those that occurred in the 20th century. Significantly, at least three of the floods that occurred on lower Prospect Creek in the 19th century were greater than the design 100 year average recurrence interval (ARI) flood.

In contrast, three of the largest floods of the 20th century were around the 20 year ARI event, with the last such flood occurring more than 23 years ago. Consequently, the community's general awareness of flooding is very low. More specifically, there will be no living memory of floods greater than a 20 year ARI event.

This lack of flood awareness is particularly dangerous in the eastern parts of Fairfield City located in the Georges River valley where the constriction caused by the narrow gorge downstream of East Hills results in a 'bathtub effect' and where the PMF is up to five metres higher than the 100 year ARI flood (Maddocks 2001). The increase in flood level from the 100 year ARI flood to the PMF substantially increases the number of flood affected residential properties within Fairfield City from around 400 to 3300 properties. Flood damages increase more than tenfold from about \$52 million to \$577 million (Bewsher Consulting 2010).

Based on statistical theory and the fact that the last 100 year ARI flood recorded at Lansdowne Bridge on Prospect Creek occurred in 1889 – more than 120 years ago – the likelihood of another 100 year ARI flood occurring on Prospect Creek is now around 70%.

Several mainstream flood studies have identified around 3,700 properties – about 6% of the 59,000 registered land parcels in Fairfield City – as being at risk from the 100 year ARI flood. This rises to nearly 14,700 properties or nearly 25% of the total number of land parcels, in the PMF and represents a significant increase in the number of properties at risk of flooding above the 100 year ARI flood.

The suburbs of Lansvale, Carramar, Canley Vale and Fairfield in the east of the city are particularly affected by mainstream and overland flooding. These suburbs contains some of the most socially and economically disadvantaged areas in Sydney. The economic and psychological impact of major flooding on residents in these suburbs will be severe given their existing hardships. The recovery from major flooding is also likely to be difficult and prolonged.

Floodplain Management in Fairfield City

As previously noted, the ministerial direction suggests that the Department of Planning has little confidence in the ability of councils to work with their local communities to deliver a good outcome on floodplain risk management. Yet, many councils, including Fairfield City Council, have had a long and successful history of dealing collaboratively with the challenges of floodplain management, particularly through associations like the Floodplain Management Authorities of NSW.

Fairfield City Council has a long history of proactively managing the flood risks in Fairfield City with an approach that has always been in accordance with the NSW Government's Flood Prone Land Policy. For instance, Council's role in floodplain management started nearly half a century ago with the Cabramatta Creek Flood Investigation in 1960. Since then, Council has either commissioned or been involved in 27 major studies on flooding and floodplain management within Fairfield. Since 1981, Council has regularly updated its flood policy in line with changes to the state policy and the emergence of new information and practices on floodplain management.

Fairfield City Council works constructively through the Fairfield Floodplain Management Committee to ensure the local community is made aware of the flood problem as effectively and as sensitively as possible. The committee was formed in 1990 and was one of the first committees to be formed in the Sydney metropolitan area. Today, the 18-member committee contains eight representatives from the local community who are drawn from a wide range of backgrounds, have lived in Fairfield City for many years, have experienced the major floods of the 1980s and are dedicated to representing the interests of the community.

The Rationale for and Application of Development Controls in Low Flood Risk Areas

The flood related development controls set out in the 2006 Fairfield City Wide Development Control Plan were first developed as part of the work of the Georges River Floodplain Management Committee (GRFMC). This committee was formed to guide the preparation of the Georges River Floodplain Risk Management Study and Plan.

One of the major achievements of the GRFMC was the preparation of uniform development controls for the Georges River floodplain and their subsequent adoption by four councils, which previously had diverse approaches to managing flood prone land. The development controls for Fairfield City were adopted in 2006, prior to the release of the Department of Planning circular, guideline and ministerial direction in 2007.

The controls developed as part of the Georges River Floodplain Risk Management Study and Plan were based on a matrix planning approach. Of the 39 controls, only three apply to residential development within the low risk area of the Georges River floodplain.

The first two controls – and the most important – relate to flood evacuation. These controls are intended to ensure that adequate flood warning time is available to allow safe and orderly evacuation without increased reliance upon the SES or other authorised emergency services. The development must also be consistent with any local flood evacuation strategy such as the 2005 Fairfield Local Flood Plan, prepared by the SES and Fairfield City Council.

These controls are particularly important in the suburbs of Lansvale and Carramar where there are a high proportion of vulnerable residents who may find it more difficult than most to evacuate during times of flood. This includes elderly or infirm residents, single-parent families and residents on very low incomes.

Fairfield City is also one of the most multicultural local government areas in Australia where 32% of the population do not speak English well or at all. Lansvale and Carramar are certainly representative of this cultural diversity. Some residents in these suburbs come from countries where flooding is an accepted part of life and where emergency response is much more limited than in Australia.

This presents difficulties for the SES and other emergency service personnel when attempting to communicate the threat of flooding and when directing residents to evacuate during floods. It also highlights the fact that issuing direct instructions during flood times and conducting flood awareness campaigns during non-flood times are not, by themselves, sufficient to ensure resident safety. Fairfield City Council would argue that controls placed on new developments in these suburbs, particularly when tailored to local language groups and customs, are an important and necessary part of flood emergency response.

These controls are particularly important to apply to medium and high density residential developments where new residents, who would be expected to have very limited awareness of the local flood history or flood behaviour, are being placed in the floodplain. The accommodation of new residents in medium to high density developments is likely to place additional strain on the limited resources of the SES and other emergency services during flood times. It is considered essential that flood warning and evacuation systems are installed as part of new developments to complement and support the activities of the SES and emergency services.

The need to ensure that the flood emergency response measures for new developments are consistent with the Fairfield Local Flood Plan is important, as the plan contains important information for development proponents and residents about the threat of flooding in Fairfield. This includes information on how flooding occurs, which roads become inundated by floodwaters and actions to be taken during floods.

In practice, the controls regarding emergency response in low risk areas are not considered onerous for proponents to comply with. For instance, having clear, well-worded and culturally appropriate signage regarding flood warning and evacuation is one of the most cost-effective measures and one that can be readily incorporated with other signage in and around any development.

Fairfield City Council and the Fairfield Floodplain Management Committee have also recognised flood evacuation as an issue within the Cabramatta Creek and Prospect Creek floodplains. Controls for development on these floodplains stipulate that reliable access should be provided from dwellings in low risk areas to an area of refuge above the PMF level.

However, in recognition of the differences in flood behaviour between the Georges River and its tributaries, controls in the Fairfield City Wide DCP related to the Cabramatta Creek floodplain, allow development proponents to provide flood refuge on site so that residents can 'shelter-in-place' during flood events.

The above demographic factors and short flood response times will result in little or no effective warning for residents to evacuate, thereby increasing risk to life. The projected increase in population densities will add to this risk considerably. Furthermore, for evacuation to be effective, it needs to be timely and orderly with people confident in the knowledge that their route and destination will remain safe.

The fact that the SES will be able to offer little warning or be fully able to assist all residents in a major flood emergency, means that residents must be given an ability to save themselves in these situations. It may therefore be safer for residents to remain in their dwellings during a short flood event rather than attempt to move out of the floodplain. Forcing people to flee their homes in dangerous flood conditions and possibly at night, would increase the risk of injury and drowning.

For this strategy to be feasible, residents must be able to take refuge at a level above the PMF level and buildings must be designed and constructed to remain structurally sound during events up to the PMF. This is feasible and readily achievable in multi-storey dwellings, particularly in medium and high density developments

Furthermore, GHD and Cox Consulting (2001) suggest there are grounds to expect that if councils and other authorities introduce controls in order to discharge their duty of care, the community will be prepared to accept them and any reasonable, associated financial consequences.

Community Engagement

It is clear that the Department of Planning is very concerned about the potential for community backlash over flood notifications. Indeed, adverse public opinion to the findings of flood studies continues to be reported (for example, McGowen 2011). But what is not often acknowledged is that there are ways of communicating flood risk to the community in appropriate and sensitive ways and that this has been done in Fairfield City Council.

The Georges River Floodplain Management Study and Plan project is one example of where residents were informed of the risk of flooding up to the PMF. As described by Bewsher & Maddocks (2003), approximately 7000 residents living within the Georges River Floodplain and a further 6000 residents within the Prospect Creek floodplain were informed that they may be at risk of flooding. In addition, a series of ten workshops were held – three of which were in Fairfield City – to explain the project and address questions.

In contrast to the adverse community reaction that occurred in the early 1980s following the release of floodplain mapping, the information provided by mail and through the workshops was reasonably well received.

Some residents did express concern about the impact on property values following the application of flood-related development controls or the public notification of flood affectation. Yeo (2003) conducted research and concluded that evidence from Australia and overseas suggests that flood notification has little impact on property values.

Implications for Current Investigations

Fairfield City Council is conducting a number of investigations which are likely to have implications for the control of development in low flood risk areas. These investigations relate to climate change, detention basin safety and 'shelter- in place'.

Despite current uncertainty around the impact of climate change on rainfall, there may be a need to add an additional freeboard to account for possible changes in rainfall. Council is concerned that the current Department of Planning guidelines – by restricting the flood planning level to the 100 year ARI flood level plus 0.5 metre freeboard – do not allow Council the flexibility to adopt an additional freeboard to account for these changes.

Fairfield City Council maintains 19 flood detention basins throughout the city. The safety of a majority of these basins is currently being reviewed as part of a floodplain risk management study and plan. As part of this project, Council will examine what development controls might need to be applied to protect residential development that is at risk of flooding resulting from potential basin failure.

Specifically, the failure of a detention basin occurs rapidly, leaving very little, if any time for warning or evacuation. Council must therefore apply controls to allow affected residents to 'shelter-in-place' as it is impractical to evacuate through floodwaters to flood-free ground. Shelter-in-place means that residents would move to a higher level within their building – the building requires a structural design suitable to withstand the force of floodwaters and weakening by immersion – and wait until floodwaters recede. Evidence presented by Hayne et.al. (2009) suggests that in some circumstances, safe evacuation or movement in the flood zone may not be possible and that it may be safer to shelter-in-place.

Shelter-in-place may also prove to be the safest and most cost-effective emergency response option for new development in low flood risk areas within overland flow catchments. This is because the critical storms causing peak flooding in overland flow catchments in Fairfield are usually of less than two hours duration, leaving little time for warning and providing limited opportunity for evacuation. Shelter-in-place is preferable to evacuation, given that evacuation through overland flow is often unsafe (Hayne et.al. 2009). As more and more residents are accommodated in the floodplain there will be even less capacity for local roads to convey vehicles away from floodwaters, further supporting the case for shelter-in-place.

Council has commenced a number of floodplain risk management studies and plans for local catchments and they will examine the need for shelter-in-place. Council is concerned that the current Department of Planning guidelines do not allow Council the flexibility of adopting a shelter-in-place strategy for low risk areas if this is the only feasible option that emerges from the floodplain risk management planning process.

Implications for integrating floodplain risk management and land use planning

The issues highlighted here as part of Fairfield City Council's case for exceptional circumstances bring into focus some of the broader issues around the integration of floodplain risk management and land use planning profession. It appears that the some of the observations made by Grech & Bewsher (2007) regarding the poor integration of the two professions are still relevant today, particularly as councils contend with the updates to their local environmental plans (LEPs).

Council's case for exceptional circumstances has been made against the backdrop of preparing new local environmental plans (LEPs) based on the NSW Standard Local Environmental Plan. From Council's dealings with the Department of Planning during this process, it appears that there is a limited appreciation of the Flood Prone Land Policy and the impact it has on Council's duty of care to notify and proactively manage flood risk up to the PMF. There also appears to be a reluctance to discuss or clarify the intent behind the ministerial direction and little enthusiasm to understand Council's dilemma in addressing the issues it raises. This is likely because the floodplain risk management process operates mostly outside the normal planning process under the *Environmental Planning and Assessment Act 1979*.

To date, about 30 NSW councils have had their standard LEPs gazetted while the remainder are at various stages of either preparing or placing their LEPs on public exhibition. All these councils would be aware that the ministerial direction requires that LEPs show a FPL as the 100 year ARI plus 0.5 metre freeboard. As far as the authors are aware, however, only two councils have submitted a claim for exceptional circumstances to contest this, although several other councils are considering their position. This suggests that either most councils do not have a significant flood problem, or the implications of the ministerial direction have not been fully acknowledged by councils' floodplain managers and landuse planners in an integrated way.

Despite the ministerial direction stating that councils will continue to receive protection under Section 733 of the *Local Government Act 1993* by following the direction, it is recommended that councils seriously consider applying for exceptional circumstances. In this way, councils can fully demonstrate their duty of care to residents.

Finally, the NSW Government has announced it will overhaul the *Environmental Planning and Assessment Act 1979*. This presents a rare opportunity for floodplain managers to lobby for better integration of floodplain management within the land use planning system and to resolve the contradictions, gaps and inconsistencies created by the 2007 ministerial direction.

Final Thoughts

This paper has attempted to highlight some of the major problems with the 2007 ministerial direction that removes development controls from residential development in low flood risk areas. It also reveals on what basis Fairfield City Council has argued its case for exceptional circumstances to continue applying development controls.

The authors recommend that other councils consider applying for exceptional circumstances as soon as possible in order to demonstrate their duty of care and highlight the contradictions, gaps and inconsistencies in the current arrangements. Specifically, it is suggested that councils:

- highlight the obvious contradictions between the ministerial direction and the merits-based approach to floodplain management
- argue the merits of using a matrix approach to development controls rather than using a single FPL
- emphasise how the absence of development controls within low flood risk areas may increase risks to people and property within those areas
- highlight that flood notifications and flood related development controls for low flood risk areas are unlikely to restrict development or adversely affect property prices
- continue to engage with urban planners from within council and state government to promote awareness and understanding of this important issue.
- lobby for changes to the NSW land use planning system and Standard LEP to achieve better outcomes and integration between floodplain management and landuse planning.
- seek support for their case for exceptional circumstances from their floodplain management committees, SES, local emergency management committees and state political representatives.

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