

THE CONSENT AUTHORITY AND THE COMBAT AGENCY RELATIONSHIP REVISITED – HAS ANYTHING CHANGED?

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Abstract

In 2001, the NSW State Emergency Service (NSW SES) presented a paper at the Wentworth Floodplain Management Authorities Conference on the assistance the NSW SES, as the flood combat agency in NSW, could provide to Councils, as the development consent authority responsible for management of the floodplain.

Since that time, the 2005 Floodplain Development Manual (FDM) has been published and now includes a section dedicated to emergency response planning for floods (Annex N). Around the same time the NSW SES began employing additional specialist staff in planning and community engagement at the region and state levels. These two measures have facilitated and enabled more interaction between the NSW SES and local governments, but has this increased interaction improved the safety of NSW communities from flooding?

One of the principles of the FDM is to avoid creating additional flood risk. Considering the NSW SES has increased its presence in land use planning and floodplain development issues, why is the residual flood risk across NSW increasing? Furthermore, is development being proposed and approved that relies too much on the ability of the NSW SES volunteers to support a community during a flood emergency?

This paper suggests that it is becoming more difficult for the NSW SES to manage increasing additional future risk as a result of land use planning decisions to approve development in flood prone/at risk areas. Unless there are some changes to how the land use planning system addresses flooding there will continue to be a reliance on emergency services such as the NSW SES to treat the ever-increasing future residual risk.

Introduction

Keys and Opper (2001) presented a paper at the Wentworth Floodplain Management Authorities Conference which detailed how the NSW SES was involved with Councils in the floodplain management and land use planning processes.

Since that time the NSW SES has increased the number of specialist staff dealing with issues associated with land use planning and floodplain risk management. It also gained, in 2005, an explicitly recognised function of ‘protecting life and property in floods, storms and tsunamis’ (*SES Act*, s8(aa)). Changes to the *State Emergency Rescue Management Act 1989* (NSW) and endorsement of the State Emergency Management Plan (EMPLAN) in 2012 have also occurred since 2001.

Additionally, the 2001 Floodplain Management Manual was updated and amended to become the 2005 Floodplain Development Manual, a manual that guides how to implement the NSW Flood Prone Land Policy.

With these changes in mind, this paper seeks to answer the following questions:

- a) How the NSW SES's relationship in floodplain risk management and land use planning with local government has changed since 2001 and what the current status is;
- b) Whether and how current/existing flood risk has increased and if so why; and
- c) Whether future flood risk has increased and if so why

The paper concludes through introducing some possible approaches to strengthening the outcomes of the land use planning process in relation to avoiding the increase in future residual flood risk.

The early days - NSW SES and Councils

In the mid 1990's the NSW SES became more involved in floodplain management and had to adapt to the requests from Councils in relation to consent matters, 'building up principles and (having) the principles being tested in the Land and Environment Court' (Pfister & Rutledge, 2002, p.6).

The main issue the NSW SES was concerned about in the mid 1990's and up until 2002, was the potential for a proposed development to lose road access in a flood, thereby resulting in isolation of the community (Pfister & Rutledge, 2002). Pfister and Rutledge (2002) pointed to the problems associated with secondary emergencies that can occur in an isolated community during a flood, suggesting

'the (isolation) problem can escalate quickly if people become ill, or if telephone, power and sewerage services fail, or if inundation occurs above the floor levels of dwellings... (which will (increase) demands for rescue or requirements for evacuation which have obvious public safety ramifications and which will create difficulties for the SES, which must resource the necessary operations.' (2002, p. 6)

The greater involvement of the NSW SES in floodplain management from the mid-1990's onwards provided an opportunity for the NSW SES to guide Council's consultants to provide data relevant to local flood plans (Pfister & Rutledge 2002, p.7). This led emergency management specialist Rick Haines, to write a paper challenging the floodplain management process at the time, to attempt to get better outcomes for the local community (Haines, 1996). Haines suggested that floodplain management plans produced by local government Councils (Councils) and local flood plans produced by the NSW SES – could be completed concurrently (1996, p.5), to ensure the flood risk to the community was dealt with holistically. Haines' (1996, p.9) previous experience was that it had proved difficult for Council's specialist flood consultants to adequately review existing flood plans in the floodplain management process.

Post-2001: The NSW SES and Councils

The papers written by Keys and Opper (2001) and Keys et al (2003) referred to Haines' suggestion in 1996, noting that even though his idea had not been adopted, the idea resulted in senior representatives of the NSW SES and the then Department of Land and Water Conservation meeting to discuss the data requirements of the NSW SES from the floodplain management process. Unfortunately Haines' approach was not formally adopted in the 2001 Floodplain Management Manual (Keys et al., 2003, p.3).

Since the 2001, 2002 and 2003 papers were written and presented, the 2005 FDM has been published in order to assist Councils in interpreting and applying the NSW Flood Prone Lands Policy. Doing so provides the added incentive of immunity provisions linked to section 733 of the *Local Government Act 1993* (NSW), for decisions made in accordance with the manual. The FDM also does not recognise the approach offered by Haines, however it did begin to address the issues relating to the development of private evacuation plans which Keys and Opper (2001), Pfister and Rutledge (2002) and Keys et al (2003) noted. The NSW SES did not, and still does not have a role in approving or reviewing private evacuation plans as a condition of consent (see Annex N of the FDM). This approach was affirmed by the Land and Environment Court (LEC) in *Graeme Sayer v Hastings Council* (1998), where the Assessors (the modern day equivalent being a Commissioner/Senior Commission) in refusing to overturn Hasting Council's refusal to grant consent to a developer, noted the evidence presented by the then NSW SES State Planning Coordinator, Steve Opper, who:

*'...put a general principle to the Court, namely that **evacuation plans are needed to deal with settlements which already exist on flood prone land; they should not be a justification for intensifying development on such land.**'* (1998, p.11)
(emphasis added)

The LEC Assessors were not convinced by the applicant's alternate argument and held the NSW SES principle with regard to private evacuation plans was sound. The NSW SES still regularly corresponds with Councils or their consultants on issues associated with private evacuation plans and the position has not changed.

Shortly after the FDM was published in April 2005, the NSW SES began employing new staff at the Region level, who were to have a greater focus on the preparation or planning phase of emergency management. The plan review process involves the review of outputs from the flood and coastal risk management process; however generally only those flood studies that relate to the local flood plans that have been prioritised for review, will be reviewed. These staff have been involved in flood intelligence roles during operational periods, which normally takes priority over floodplain or coastal risk management work.

The importance of providing outputs for the NSW SES from the floodplain management process, formed the basis for two guidelines titled the 'Flood Emergency Response Planning Classifications of Communities' (NSW Government, 2007a) and the 'SES Requirements from the FRM Process' (NSW Government, 2007b). The intent of these guidelines was and still is to assist Councils undertaking the floodplain management process, to produce the data and information that could then assist the NSW SES in dealing with the residual flood risk for an area through completing an emergency

response management plan, termed the 'local flood plan'. These guidelines are still promoted to Councils at the beginning of the floodplain management process, and at various stages throughout the process where draft plans and studies are being reviewed.

From 2005 and perhaps even before this time, the NSW SES increased its level of involvement in reviewing significant development proposals on flood prone/affected land referred to it from Councils or the Department of Planning. From 2005 to 2008 there were a number of significant development applications that touted shelter-in-place as an acceptable strategy to deal with future flood risk. This challenged the NSW SES policy position on evacuation as the primary flood risk management strategy to ensure the safety of the future at risk population. Consequently, the NSW SES increased its involvement in the application process of these development proposals, in an attempt to gain more suitable outcomes for the safety of the future NSW population, and to avoid increasing the continuing or residual future risk.

Throughout this period a number of controversial development proposals under *SEPP (Housing for Seniors or People with a Disability)*, for example *Neate v Shellharbour City Council (2007)*, came before the LEC and influenced the development or reaffirmed the existing stance of the NSW SES policy position on evacuation versus shelter in place.

Between 2008 and 2011, the NSW SES policy position on evacuation v shelter in place (deliberate isolation) in flash flood environments continued to evolve through involvement in significant land use planning issues. Two significant papers (see Haynes et al, 2009 and Oppen et al, 2011) provided further research and evidence to reaffirm and strengthen the NSW SES position.

During this period, the change in personnel within the NSW SES emergency risk management section limited the involvement in land use risk management matters, although the two 2007 guidelines to the FDM mentioned previously, still promoted the NSW SES position. It was hoped that outputs compliant with the guidelines would be received from the process. During this time however, more strategic planning matters or significant development applications continued to be given priority by the NSW SES executive.

In 2011, an identified specialist role was created to focus primarily on land use risk management issues that impact or are relevant to the NSW SES. This role has continued to coordinate correspondence related to land use risk management, including reinforcing the NSW SES position in relation to evacuation and shelter in place and further developing other NSW SES policy related to dealing with residual flood risk.

In a practical sense this has not changed how the NSW SES works with Councils on floodplain risk management or land use planning issues; however it has enabled at least one full time equivalent (FTE) position to focus on the prevention aspects of emergency management in more detail.

The filling of this new position coincided with the revamping of the NSW State Disaster Plan (DISPLAN) into the State Emergency Management Plan (EMPLAN), which for the first time included a preventative role for NSW SES. This role is:

'to work with landuse planning and consent authorities to advocate that the risks arising from flood, storm and tsunami are considered so as to prevent the creation of intolerable impacts of these hazards on the community' (NSW Government 2012, p. 68)

However, although the NSW SES has a preventative role espoused in EMPLAN, there is still a limited ability for the one FTE position to be able to coordinate a detailed response to adequately represent the NSW SES position on avoiding decisions that increase flood or coastal risk, or provide input to ensure quality outcomes for the NSW SES to be able to undertake emergency response planning.

Furthermore, the NSW SES is often battling against agencies assuming NSW SES concurrence on a proposal, plan or study as a result of a zero response. As a result, the NSW SES has attempted to provide a generic response, reaffirming the NSW SES principles that align with the Floodplain Development Manual, to as many referrals as possible, and prioritise the more significant or strategic issues that could increase the future flood or coastal erosion risk to the NSW population.

It is difficult to know if this mechanical-type approach to dealing with land use risk management issues has been effective in reducing continuing residual risk or avoiding future risk. However what it is clear is that the referrals to the NSW SES have increased 25% in the last year alone and the likelihood is that this will continue to increase as Councils and other consent authorities become more aware of the NSW SES role in prevention.

The Present: NSW SES current relationship with and approach to consent authorities

The NSW SES's current approach to influencing land use risk management outcomes is multi-faceted and does not just involve the review of floodplain management documents or written correspondence and submissions on land use planning issues, but also policy development, research and delivery of presentations at key conferences and University courses. Table 1 shows the achievements and challenges the NSW SES has experienced in the attempt to reduce the residual flood risk both in existing and future NSW communities.

Table 1 NSW SES approach to dealing with residual flood risk

Flood Risk to NSW communities	Achievements	Challenges
Existing residual flood risk	<p>Completion of NSW SES state, region and local flood plans.</p> <p>Presentation at University Technology Sydney (UTS) floodplain management course.</p> <p>Community education campaigns in relation to flood risk the community faces.</p> <p>Development with Office of Environment and Heritage (OEH) of two guidelines.</p>	<p>Floodplain risk management plans defaulting to the NSW SES to treat and reduce residual risk without quantifying the implications to the NSW SES volunteer members.</p> <p>Recruiting new and retaining existing volunteer members to assist communities exposed to flood risk.</p> <p>Ensuring 120+ local flood plans incorporate current flood risk information.</p>
Future residual flood risk	<p>Presentation at UTS floodplain management course.</p> <p>Submissions on Local Environment Plans, Development Control Plans, Growth strategies etc.</p> <p>Development of evacuation capacity guidelines.</p> <p>Research to inform a NSW SES flash flood policy to be promoted to consent authorities.</p> <p>Independent research, publishing journal and conference papers</p> <p>NSW Flood Database</p>	<p>Limited legislative ability to ensure mandatory consideration of emergency management principles for development proposed in flood prone areas.</p> <p>Integration of the Floodplain Management, Emergency Management and Land Use Planning processes.</p> <p>Over reliance on the NSW SES to deal with future residual/continuing risk</p>

Is the residual or continuing flood risk in NSW increasing?

Residual risk is defined by the floodplain development manual as the *'risk remaining, in both existing and future development areas, after floodplain risk management measures, such as works and planning controls are implemented'* (FDM, p.5).

However, defaulting to or assuming community-wide flood planning will address all future residual flood risk may be problematic. The assumption that the NSW SES has the ability to manage existing and future residual flood risk has its limitations. The NSW SES member base has only marginally increased since 2001, from approximately 8000 (NSW SES, 2001) to 8800 volunteers (NSW SES 2013/4) which is not in line with population growth. Additionally, there have been major developments proposed and approved that even after other floodplain management measures put in place, still rely on emergency

services to address continuing residual flood risk (for example see Wollongong Council, 2012 and Wollongong Council, 2015). Therefore there are now proportionally less NSW SES volunteers to deal with continuing flood risk than there were in 2001.

Current continuing/residual risk

Quantifying whether there has been an increase in residual flood risk is a difficult task. The NSW SES has a large role in dealing with residual flood risk in the floodplain risk management process. Therefore, an assessment of the number of 'community-wide flood plans' or 'local flood plans' coordinated and devised by the NSW SES with local government and which incorporate outputs of the flood studies, floodplain risk management plans or studies, could give an indication of the awareness of the NSW SES of the flood risk and how it is incorporated.

The main approach the NSW SES has taken to addressing residual flood risk to a community is through preparing a local flood plan for that community. Although the process to produce the plan is often more important than the final written document (Gissing et al, 2007), the local flood plan is comprehensive in detailing how residual risk will be treated. The current version is separated into three volumes: volume 1 details the emergency management arrangements through the preparedness, response and recovery phases; volume 2 identifies the hazard and risk to the local community; and volume 3 identifies suitable risk treatment options or strategies to ensure the safety of the identified at-risk community. It is volume 2 and 3 which rely significantly on the data and information from the floodplain risk management process.

In 2001, the NSW SES had completed 153 Local Flood Plans for Local Government Areas with a significant flood risk in NSW (Pfister and Rutledge, 2002). At this time, it was not standard practice for the NSW SES to be involved in the Floodplain Risk Management process or to even be provided with a copy of Flood Studies and Floodplain Risk Management Studies and Plans. In the last 14 years since the Wentworth FMA conference paper was presented, over 500 flood studies, floodplain risk management studies and plans have been developed by local government in partnership with OEH and various other funding programs. Our knowledge and understanding of flood risk (including residual flood risk) has increased significantly over time through the floodplain risk management process. Notably, the general trend is for these floodplain risk management plans to recommend, sometimes without consulting the NSW SES, the revision or development of a local flood plan as the default key strategy for dealing with residual risk. While this is consistent with the FDM for dealing with continuing risk (FDM, 2005, p N-1), this strategy alone is not sufficient to remedy poor floodplain management or land use planning decisions and should not be invoked simply because other strategies are too difficult or too costly.

In 2015, the number of Local Flood Plans maintained by the NSW SES is 121, a decrease from 2001, due to council amalgamations and realignment of boundaries; however, the number of plans that have been comprehensively reviewed in this period to incorporate the information from the FRM process is alarmingly small. There are still over 300 flood studies and floodplain risk management studies and plans that have not yet been incorporated into NSW SES Local Flood Plans. Despite improvements in the floodplain risk management process and the flood emergency planning process, and a range of successful mitigation measures implemented in communities across the State

in the intervening years, it is unlikely that there has been any significant decrease in overall state-wide residual flood risk.

In addition, it would be naïve to assume that the population at risk from flooding in NSW has remained steady in the years since the 2001 paper was written. While no comprehensive studies have been undertaken to estimate the current population at risk from flooding since the 2001 BTRE report (Bureau of Transport Economics, 2001), the population in many already at-risk areas across the State, especially in coastal communities with very little flood free residential land available such as the Tweed Valley, Lake Macquarie, Newcastle and Illawarra Regions, has increased (Australian Bureau of Statistics, 2015).

Although the current local flood plan format has changed over the years, the essential philosophy of emergency planning for floods has not. The key strategies of information provision, warning, evacuation and rescue continue to form the basis of the NSW SES response to flooding. So with the increase in population living in flood prone areas, and very little increase in volunteer numbers over the years, it is likely that the residual risk has increased. The scale of this increase remains to be determined.

Dealing with residual risk simply by referring or transferring the risk to the flood combat agency, and then increasing that residual risk (whether by design or nature), is akin to completing a motorway upgrade in 2020 based on 2010 population figures. For emergency planning to deal adequately with residual risk, realistic estimations of the amount of current and future predicted residual risk the community of NSW will be exposed to and the capacity of the community of NSW to deal with that risk, are necessary.

In this way, Councils can complete FRM plans based on an expectation of a realistic share of NSW SES capacity to deal with residual risk, rather than many hands reaching for a larger and larger slice of a smaller pie.

Future continuing/residual risk

The NSW SES has experienced mixed results in fulfilling the preventative role defined in EMPLAN (EMPLAN, 2012, p68). The approach to influencing the outcomes of the planning process as described in table 1 has led to involvement in some controversial LEC appeals, and awareness and involvement in significant developments affected by flooding.

Table 2 lists three developments across NSW that have been approved in flood prone land, to provide evidence/examples to support the hypothesis that the residual future flood risk is increasing. In each development the applicant/proponent attempted to put in place arrangements to deal with future risk, but even with such arrangements in place, there is still a requirement for the NSW SES and other emergency service agencies to have to ensure the safety of the community who will become isolated in a flood.

Neate v Shellharbour City Council (2007) ('*Neate*') was one particular proposal that was the subject of the LEC proceedings. *Neate* originally concerned a decision made by Shellharbour City Council to refuse to grant consent to a DA for an aged care development in a floodplain. In *Neate*, the applicant sought to demolish and replace

existing buildings with 49 new dwellings for elderly people with a disability, on land prone to flooding and which has limited access during floods. The Senior Commissioner was satisfied the applicant had presented a thorough enough analysis of the site's flood risk and accepted the contingencies the applicant put in place. This was despite Council's hydrologist and the NSW SES director of emergency risk management, both who supported the Council's refusal of the application, voicing their concern of the unsuitability of the proposed development due to issues of isolating vulnerable elderly members of the community in a flood.

The decision in *Neate* (2007) created much controversy and disagreement in relation to whether the risk to a community who became isolated in a flood was acceptable or tolerable, (see Nichols et al, 2008; Opper & Toniato, 2008) especially considering previous appeals to the LEC on similar issues development (See, for example, *Hackett v Hawkesbury City Council* *Hackett v Hawkesbury City Council* (2006) and *Primo Estates Pty Ltd v Wagga Wagga City Council* (2005)) had been dismissed based on the impact such a development would have on the emergency services, which the LEC held outweighed the benefit of the proposal.

Table 2 also lists the Calderwood development which was an application under SEPP (Major Projects) and development in West Dapto earmarked through a strategic growth strategy. Both developments will likely mean the addition of 20,000 new dwellings (estimated increase of 70,000 people) exposed to the effects of flooding.

Table 2, Unfavourable outcomes for NSW SES – Increase in future residual flood risk

Case/Development	Proposed development	Flood risk	Citation/Reference
<i>Neate v Shellharbour City Council</i>	49 new dwellings for elderly people with a disability	Isolated in a flood less than 1% AEP (Annual Exceedance Probability)	[2007] NSWLEC 526
Calderwood State Significant Project	4800 new dwellings	Isolated in a flood less than 1% AEP	Wollongong Council (2012)
West Dapto Urban Release Area	Proposed 19000 new dwellings	Isolated in a flood less than 1% AEP	Wollongong Council (2015)

As the FDM acknowledges '...growth increases the pressure on response and recovery agencies should an emergency occur' (NSW Government 2005, p.5). The examples in table 2 will no doubt contribute to this and potentially stretch the emergency service agencies such as the NSW SES to respond.

Although overall residual flood risk is increasing as table 2 provides examples of, the NSW SES and Councils who are managing flood risk according to the FDM have had some successful outcomes that have prevented the increase in flood risk. Table 3 lists some LEC cases where developments were refused due to issues associated with unacceptable flood risk. On a side note in these cases is the acknowledgement of the importance of the FDM by the LEC, even though the FDM does not have weight as a statutory manual.

Table 3, Favourable outcomes for the NSW SES – Prevention of increased flood risk

Case/Development application	Proposed development	Flood risk	Citation	Notes
<i>Primo Estates Pty Ltd v Wagga Wagga City Council (Primo Estates)</i>	Two-storey residence on a site zoned rural residential in a high-hazard part of the floodplain	Over-floor inundation in flood less than 1% AEP	[2005] NSWLEC 632	LEC held the difficulties of being able to evacuate the site during a flood were overwhelming, especially to the emergency service agencies who would be expected to assist.
<i>Trustees of the Roman Catholic Church for the Diocese of Lismore v Nambucca Shire Council & Northern Region Joint Regional Planning Panel ('Trustees for Diocese of Lismore')</i>	A primary school for up to 330 students on a rural lot in a high hazard floodplain.	Evacuation required at floods below 1% AEP	[2011] NSWLEC 1346	LEC dismissed the appeal, primarily due to the difficulty that the emergency service agencies would have in being able to assist additional people to evacuate from a floodplain during a flood
<i>Catalina Island Pty Limited v Pittwater Council ('Catalina Island')</i>	Residential units under SEPP (Housing for Seniors or People with a Disability)	At approximately an 0.33% AEP flood the residents would experience inundation in their properties within three to five minutes	[2014] NSWLEC 1125	As there was no alternate convincing argument put forward by the applicant to ensure the safety of the future occupants, The LEC dismissed the appeal.

Looking to the horizon – some future options?

The scope of the paper is such that the potential future options to assist in reducing residual risk cannot be fully explored in detail other than to mention what is currently being considered and assessed within NSW SES.

Prevention (in its broader context of emergency management) needs to become embedded in land use planning policy at the highest strategic (State) level and regulated by regional, sub-regional and local planning instruments that place an emphasis on the protection of life.

The ability of the NSW SES to respond to emergencies is limited. Without consideration of emergency management principles early in the strategic planning process, the NSW SES and other emergency service agencies will be required to prepare for, respond to and recover from emergencies involving more people at risk from flooding, coastal erosion, tsunami and other secondary emergencies.

Councils (or the relevant consent authority) do not currently have to take into account NSW SES advice regarding development proposals on flood prone land. If they do, it is only one consideration that competes against other priorities such as housing affordability and access to transport.

Not taking flood risk or emergency management principles (e.g. risk to life) into consideration, or weighing it lower than other considerations does and can potentially increase the risk of people exposed to flooding and its consequences such as not being able to safely evacuate from a new or planned development or being isolated and subject to secondary emergencies including medical and fire emergencies.

This would mean the residual flood risk would increase and there would be a reliance on the NSW SES to prepare for and respond to more flood emergencies, placing more emergency service personnel at risk during a flood.

Going forward, in determining how best to avoid increased flood risk in NSW, the NSW SES is considering the following: Is giving the NSW SES a consent or concurrence role going to truly prevent increased flood risk? Or is it better to develop a statutory manual which makes it mandatory for emergency management principles (e.g. risk to life) to be considered in any decision to allow or refuse development on land at risk from flooding? And/or would the amendment or reform of relevant planning and emergency legislation to explicitly identify emergency management principles and provide the ability to override competing considerations in certain circumstances, assist in better outcomes for the NSW community and NSW SES?

And how far should the government go? Would having the NSW SES undertake a greater role in all facets of managing flood risk in NSW be the ultimate long term solution to avoid some poor and potentially disastrous outcomes for the NSW communities and the NSW SES?

Conclusion

The NSW SES involvement in floodplain risk management and land use planning matters with local government has been ongoing since the 1990's and although there have been some cosmetic changes to the NSW SES since 2001, the approach to managing residual flood risk has remained the same.

The NSW SES is ultimately at the mercy of the floodplain risk management process when it comes to understanding flood risk that a community faces; especially the residual or continuing flood risk. Local government is responsible for driving the floodplain management process including the review or development of substantial parts of the local flood plan. The FDM and associated guidelines provide interpretation of how this should be done.

Arrangements put in place to ensure that the NSW SES local flood plans contain the outputs of the floodplain risk management process have not been as effective as they could be. It is time to revisit how best Councils and their consultants can incorporate the outputs of the floodplain risk management process to best assist the NSW SES. This will help to deal with continuing future residual risk more effectively.

It is also time to re-evaluate the reliance on the NSW SES volunteers to deal with more and more communities at risk of flooding. The number of NSW SES volunteers is limited, so time is ripe for the NSW planning process to incorporate measures that 'prevent the creation of intolerable impacts of (floods) on the community' that EMPLAN has envisaged (NSW Government 2012, p. 68) without relying on NSW SES volunteers to have to deal with increased future residual risk.

Although some recent LEC decisions have been encouraging in refusing development that would create intolerable risk to the community, especially vulnerable members of the community, there have been recent examples of significant development that has not been challenged or which has overridden any emergency management considerations. Some of these decisions have increased the flood risk to the NSW community, especially future communities.

The current NSW planning system does not require local government, as the main consent authority for local planning decisions, to weigh emergency management considerations (i.e. risk to life) above other planning considerations. Strengthening the preventative role in the *SES Act*, and further exploring possible options in the NSW planning system for emergency management principles to be mandatorily considered or appropriately weighed against economic, convenience and lifestyle factors for certain developments, could assist in reducing the increasing future risk.

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<http://www.planningreview.nsw.gov.au/LinkClick.aspx?fileticket=c9VSSwJzWFA%3D&tabid=105&mid=516> >

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Melanie Howard Melanie Howard is a Landuse Risk Management Officer with the NSW SES. Melanie's focus is to coordinate NSW SES input into strategic landuse planning and development assessment. Melanie has held various Emergency Management roles in NSW during the last 14 years, focussing on planning and emergency risk management, and has co-authored papers for NSW and interstate FMA Conferences.