

NATURAL DISASTER INSURANCE REVIEW: REPORT SUBMISSION FROM THE FLOODPLAIN MANAGEMENT ASSOCIATION



INTRODUCTION

Thank you for the opportunity to make a submission to this important review. The specific matter of flood insurance has been formally raised by members of the Association for several years, reflecting some of the frustrations and experiences of our member floodplain management organisations and the communities they represent. The Association has been in communication with the Insurance Council of Australia.

Firstly, the Floodplain Management Association (FMA) - formerly known as the Floodplain Management Authorities - is an association of over 90 Councils, Catchment Management Authorities and Flood Mitigation County Councils, Consultants, Businesses and Individuals involved in floodplain risk management. The FMA was established to promote sound and responsible floodplain management, and to make representations on behalf of local government at State and Federal levels. The FMA has continued these important roles for more than 50 years. More information about the FMA is available at www.floods.org.au.

This submission has been made by the FMA executive on behalf of its members. However, the responsibility for content and views are those of the primary authors – Director Technical of the FMA executive (*Mr David Gibbins: (02) 4974 2888 / 0413 759 307 / dgibbins@ncc.nsw.gov.au*) and the Deputy Chairman (*Clr. Larry Bolitho: (02) 9843 0102 / 0412 174 413 / clr.bolitho@thehills.nsw.gov.au*).

In recognition of the importance of this matter, in February this year the FMA at its 51st Annual conference convened a full day pre-conference workshop on Flood Insurance. Representatives from the Insurance Industry and flood management practitioners participated. The workshop included a representative from the USA who presented on their contribution to their Flood Insurance Rate Map (**FIRM**) project. We suggest these workshop presentations can assist your review and are publicly available on <http://www.tamworth.nsw.gov.au/Community/Festivals-and-Events/2011-Floodplain-Management-Conference/Tuesday-22-February/Tuesday-22-February> .

International experiences as well as our own recent Australian flood experiences show there is a great need for careful thought in the process of establishing positive and complementary working relationships between Governments, Insurers and the Community.

COMMENTS

Additionally, the following is offered to contribute to your review:

1. **Floods dominate natural disasters:** The Federal Government’s Bureau of Meteorology web site states “Overall, flooding is Australia’s costliest form of natural disaster, with losses estimated at over \$A400 million a year.”
(<http://www.bom.gov.au/lam/climate/levelthree/c20thc/flood.htm>) . The dominant natural disaster in your review’s background documentation is floods. The FMA recognises the need for a coordinated approach to the management of all forms of natural disasters – and at the same time advocates that floodplain risk management Government funding should be a program in its own right. This would help to ensure the natural disaster with the highest risk profile is given continuous funding priority.
2. **Support for a National Approach:** The FMA supports a national approach to floodplain risk management as being in the national interest, and has promoted the formation of a national floodplain risk management association to facilitate coordination with the Commonwealth. This present approach of nationally seeking to review natural disaster insurance is fully supported by the FMA.
3. **Integration with total Flood Management:** Eminent keynote speakers from the USA at recent annual FMA conferences have been very open in recognising their Federal Emergency Management Agency (FEMA)’s National Flood Insurance Program has in some areas encouraged floodplain uses and occupations that are contrary to fundamental overall floodplain risk management objectives. In general, total floodplain risk management is complex, requiring integration of risk management, town planning, social and environmental as well as economic issues. The full potential range of floods needs to be managed. While there is no ‘formula’ for successful floodplain management, the principles of the NSW Government Flood Policy and Manual are considered an excellent distillation of decades of experience and thinking for Australian conditions, which can guide a full review of (flood) insurance. These principles can be summarised as:
 - a. **Management of risk to life is the highest priority:** In any civilised society loss of life is the worst possible outcome from any event. The full potential for loss of life across all possible floods needs to be managed to ensure public safety.
 - b. **Social impacts need to be managed.** People can be traumatised. This is becoming more relevant with an ageing population. Occupation of floodplains needs to be socially as well as economically sustainable.
 - c. **It is rarely physically or economically feasible to guard against economic losses for all possible flood risks.** This leads to limits being placed on the degree of protection provided by flood mitigation works and building controls aimed at managing economic losses (such as minimum floor levels).

d. **There are some areas of floodplains where development should not be present.**

This could be because there is no escape in extreme (but very rare) flood events and loss of life would likely occur. It could be that flooding could be so severe the affected communities could not recover (which may be for social as well as economic reasons). It is for these reasons that homes, for example, are sometimes purchased, demolished, and the land returned to open space – also making room for floodwaters. *(In similar logic, the New Zealand Government recently announced that it would buy back thousands of homes on land too unstable for rebuilding after the Christchurch earthquake. The New Zealand Government also said it would be assessing the future of another 10,000 homes.)* It is better to take these actions in advance of flooding – rather than after the event.

- e. **The management of flood risks and all their complex consequences will likely not be by a single management measure (such as mitigation works) but a coordinated mix of measures.** The measures would span actions that seek to modify flood behaviours, modify how we respond to floods in advance (such as planning controls, house raising / purchase and insurance) and seek to modify how we respond to floods when they occur (through emergency management.) The measures will generally be a package that must be applied as whole, having interdependencies and sequencing requirements.

4. **Common floodplain risk management principles:** The FMA would encourage the principles summarised in the above point to be considered nationally. Correspondingly, the FMA recommends that the present review of natural disaster insurance review take into account these principles – as relating to flooding.
5. **Potential consequences can be large:** The City of Newcastle will be used a case example. The City of Newcastle is a member of the FMA and is nearing the completion of a City-wide Floodplain Risk Management Plan under the NSW Government Floodplain Risk Management Program. The Newcastle Local Government Area has a population of about 140,000, and an area of 215 sq km. About 70% of the Newcastle LGA is natural pre-existing floodplain. Of the approximately 60,000 properties about 1 in 3 (about 20,000) could flood in the future. The Plan seeks to strategically manage ocean (*but not tsunami*), river and flash flooding, for existing and future development – with a planning horizon to the year 2100 including consideration of long term climate change / projected sea level rise. In Draft, the following figures (draft in prep) summarise the potential economic impacts of flooding (*for present conditions*) *:

	OCEAN FLOODING			
	RESIDENTIAL		NON – RESIDENTIAL	
	# Properties above floor	\$ Damages (direct + indirect)	# Properties above floor	\$ Damages (direct + indirect)
10% AEP	N/A	N/A	N/A	N/A
1% AEP	4	\$1.4 million	0	\$0
PMF	1,789	\$170 million	550	\$490 million
Ave Annual Damages		\$2.2 million		\$2.4 million

	RIVER FLOODING			
	RESIDENTIAL		NON – RESIDENTIAL	
	# Properties above floor	\$ Damages (direct + indirect)	# Properties above floor	\$ Damages (direct + indirect)
10% AEP	22	\$4.7 million	17	\$5.4 million
1% AEP	183	\$28 million	88	\$170 million
PMF	896	\$308 million	550	\$1 billion
Ave Annual Damages		\$2 million		\$6.3 million

	FLASH FLOODING			
	RESIDENTIAL		NON – RESIDENTIAL	
	# Properties above floor	\$ Damages (direct + indirect)	# Properties above floor	\$ Damages (direct + indirect)
10% AEP	470	\$207 million	178	\$60 million
1% AEP	870	\$317 million	299	\$144 million
PMF	10,592	\$1.6 billion	2275	\$2.4 billion
Ave Annual Damages		\$35 million		\$15 million

* prepared for The City of Newcastle by Molino Stewart P/L

6. **The potential to mitigate flooding may be limited.** In its investigations The City of Newcastle examined more than forty potential locations for flood mitigation – dominantly in the flash flood urbanised catchments. These potential mitigation measures were selected after a world wide literature search of flood management measures. The finding in draft at this stage of the planning is that unfortunately not one mitigation measure is viable - either the flood flow physics are not suitable – or economic justification (Benefit Cost Ratio is very low).
7. **National Flood Information Database:** It would seem to make sense that Government and the insurance industry share flood information and mapping. Some FMA member Councils have sought legal advice – some will share and some will not. The task of achieving common standards and practices would appear to be extraordinarily difficult – and it would be undesirable to stifle innovation. However if guidelines could be established would be helpful. It would also be very helpful if somehow the insurance industry could share their post flood information with Government. At the very least this would enhance planning estimates of economic damages and give greater actuarial guidance to the insurance industry. As often noted, FMA member Councils report large discrepancies between the broad scale flood information apparently used by the insurance industry (but never seen by FMA members) and the high quality flood information being increasingly generated by FMA member organisations. *(There are still large gaps however.)*
8. **Liability:** In NSW Local Government is protected under 733 of the Local Government Act provided it acts in accordance with the principles of the NSW Government. However it is not clear wether Council’s would continue to be protected if they provide information or collaborate with insurance industry. It would seem desirable to have national provisions similar to the NSW State liability provisions.

9. **Terms of reference** – It is respectfully submitted that the first point in the terms of reference is not universally appropriate. As described in other parts of this submission, there are areas of floodplains where continued occupation is incompatible with the full range of flood risks and consequences. Buy back or transitional retreat through long term planning controls can be the appropriate response – not automatic rebuild after a flood event.
10. **International Experience:** It is especially salient that one of the presentations at the last FMA annual conference (Jones – see introduction) clearly conveyed diversity in European Governments / insurance industry relationships. In the UK Government strategically sets rigorous planning standards for future development and undertakes to reduce existing flood risks to defined limits (with fierce debate on funding). Germany has a more proactive insurance led response, but with re-insurers highly influencing covers offered (or not). In the Netherlands flood cover is not available privately, but is provided the Government, since it has responsibility for flood defences. Despite this diversity, it is still true that there is a pattern of European Governments having set stable development and mitigation standards for some decades, which has enabled provision of insurance. For example in the UK it is a 1 in 75 standard, but in Germany, there is a range of standards (1 in 200, 50 and 10) allowing more tailored coverage for different flood circumstances.
11. **Costs Pool and Roles of Government in Australia:** It is recommended that there be a clear separation between all three tiers Government and the private sector in floodplain risk management for the organisation and provision of insurance. This would mean there is no subsidy of flood insurance by Government, and the private insurance industry would make commercial decisions using best available information within a legislative and floodplain risk management wider framework provided by Government. Government would have a contributing role in providing available scientifically based flood risk information and mapping and ensuring traditional business regulation of equity, consumer protection, common minimum service provisions and the like are in place. *(This could be analogous to Government regulation of superannuation schemes.)* The aim would be to ensure overall occupation of floodplains moves towards satisfying sound floodplain risk management, and if the insurance industry cannot economically provide insurance for some occupations, and a major flood event occurs, the responsibility for the occupation of those sections of the floodplain rests with Government and the community who live and work there. This will encourage better land use planning and long term compatibly with the flood risks. Conversely, the cost of poor planning decisions will not be artificially subsidised. It will also mean areas of the floodplain where occupation is incompatible with the flood risks will not be inappropriately and artificially encouraged to continue indefinitely. Insurance should not be used a substitute for poor land use planning!
12. **Insurance models:** The FMA does not wish to make any specific comments about the various insurance models – and would prefer to leave that to the industry to comment on. However, in conjunction with **points 3, 4 and 11** earlier about common floodplain risk management principles and roles, the FMA recommends that Governments at all levels and other stakeholders together with the Insurance Industry need to develop common shared goals including sharing of data to support rational evidence based insurance decision making – ultimately reflected in the pricing and availability of flood cover.

CONCLUSIONS

- The matter of flood insurance is a matter of high importance in floodplain risk management which is best served by a national coordinated approach in the national interest.
- Flood insurance at present is often reported by the communities served by FMA to be confusing and unjust. FMA member organisations are reported to often be called to assist resolution of insurance matters, which they are not responsible for.
- There is an ever present potential for high loss of life and property by flooding that could disable large parts of Australian society. The social impacts potential are high in many areas as well – and could be socially unsustainable.
- An integrated approach with whole of floodplain risk management is required – and some principles are suggested to assist this. This approach will encourage appropriate management of public safety and well as property, and encourage responsible land use planning.
- Reconstruction after floods should not be automatic.
- The details of possible insurance models would best be left to the insurance industry with a “Government / Insurance Industry” separation.
- Decision making will only be as good as the data that supports it.
- Flooding is the dominant driver in consideration of natural disaster insurance.
- The removal of Fire Service Levies and the disincentive they provide to people either insuring or adequately insuring may need to be considered in those few States who have not already done so.
- Funding for floodplain risk management Australia wide needs to be dramatically increased to become commensurate with the risks.
- Management actions in advance of floods are always better than compensation after floods.