Floodplain Management Association

Caring for People and the Environment
www.floods.org.au ABN 67 007 279 179

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FMA Submission to Productivity Commission Inquiry into Natural Disaster Funding Arrangements

The Floodplain Management Association (FMA) welcomes the opportunity to make a submission to the Productivity Commission's Inquiry into National Disaster Funding Arrangements (the Inquiry). We are particularly encouraged that the Commission has been asked to identify "reforms which achieve an effective and sustainable balance between natural disaster recovery and mitigation funding to help communities better prepare for disasters".

Flooding is the most costly and yet most manageable of natural disasters in Australia. Damage and disruption caused by flooding is estimated to cost Australia around $550 million a year.[1] Climate change trends towards an increase in storm severity with more intense rainfall and higher ocean levels are likely to increase the prevalence and severity of flooding and associated damage

Given the persistent and widespread impact of floods on Australia we believe it is appropriate that promoting flood compatible development, reducing flood vulnerability and improving flood resilience should be a priority in this Inquiry.

The FMA has made submissions on behalf of its members to previous State and Commonwealth reviews and inquiries covering key issues raised by this Inquiry. We refer the Commission to submissions as published on the FMA website at: http://floods.org.au/fma-submissions/.

We would be pleased to provide the Commission with additional information as requested and would welcome participating in the upcoming Public Hearings.

About the Floodplain Management Association

Established in 1961 to support and promote best practice in floodplain management across NSW, the FMA now provides an authoritative and increasingly national voice on flood resilience.

The FMA has a membership of over 100 local governments, catchment authorities, consultants, businesses and individuals from NSW, Queensland, Victoria and Tasmania (see http://floods.org.au/fma-members/ for full list of members).

[1] Economic Costs of Natural Disasters in Australia, Bureau of Transport Economics, Report 103, 2001 p 38]BTE Report 103 (2001), page 38. This estimate also takes inflation into account.

Membership and participation includes both technical staff and elected representatives. The FMA is proud to bring together expertise and experience at all stages of the prevention, preparedness, response and recovery spectrum. Our members are at the front-line of flood risk assessment, flood management planning, decision making and community engagement. They also implement and administer the current funding and policy arrangements for mitigation, response and recovery.

The FMA has strong partnerships with key State and Commonwealth government agencies including NSW State Emergency Service, NSW Office of Environment & Heritage, NSW Department of Planning and Environment, Victorian Department of Sustainability and Environment, the Bureau of Meteorology and Geoscience Australia. In addition, we have links to equivalent organisations in the United States and the United Kingdom. Our international network is invaluable in sharing flood management experience and expertise from other nations with our members for the benefit of their communities

The FMA's Annual Conference generates a range of papers and presentations covering Australian and international technical information, policy issues and case studies including the impact of funding arrangements. The FMA website provides a database of these resources http://floods.org.au/past-conferences/.

This year the FMA established the Floodplain Management Project of the Year Excellence Award and secured NRMA Insurance (a brand of FMA member Insurance Australia Group) as naming rights sponsor for the next five years. The Award publicly recognises the outstanding contribution of an organisation towards flood mitigation initiatives, including measures to reduce flood impacts, management of flood incidents or the restoration of communities after a flood event. The Award showcases the value of investment in pro-active flood risk management and the positive work of FMA members and other stakeholders.

As announced on 22 May 2014, Gold Coast City Council won the Award in its inaugural year with projects entered by Balonne Shire Council (Queensland), Lake Macquarie City Council (NSW) and Launceston Flood Authority (Tasmania) also being Highly Commended. Please go to http://floods.org.au/awards/ for further information.

General Observations about Current Arrangements

The FMA would like to highlight three key issues relating to the architecture, governance, institutional arrangements and administration of the current disaster funding arrangements.

1. Implementation of flood management plans and resilience initiatives can be stymied by piecemeal, variable and insufficient funding.

   State and Territory governments allocate funding received under the National Partnership Agreement on Natural Disaster Resilience (the NPA) primarily through competitive grants programs (which may be supplemented by additional State funding). While these programs have underpinned a large number of important flood risk management initiatives they arguably encourage a short term and piecemeal approach rather than one that focuses on the entire life span of a project. Many of our local government members have a backlog of unfunded flood management and mitigation projects that could reduce flood damage costs. For example in New South Wales there are over 100 completed floodplain risk management plans, but at the present rate of funding allocations they will take 20 years or more to implement.

Further, there is very little, if any capacity for this funding to be directed toward larger scale or expensive projects such as mitigation infrastructure or voluntary house purchasing. The Deniliquin flood levee, which took 12 years to complete, is an example of how insecure and inconsistent funding can lead to lengthy delays. During the intervening years there could have been a large and damaging flood which would have undermined the benefit of the investment. In contrast, special funding arrangements established by the Queensland and Commonwealth Governments have helped local governments fast track levee building in Roma, Charleville and St George[2].

Lismore City Council's (LCC) Voluntary House Purchasing program is another example of resilience initiatives being hamstrung by current arrangements. The LCC recently adopted a new Floodplain Risk Management Plan 2014 (FRMP) that includes a Voluntary House Purchase policy targeted at houses in extreme risk areas (floodways). Given current funding arrangements, it will be many years before this program is complete. The current funding arrangement is for the state government to fund two thirds of the purchase and LCC to fund one third. The NSW state government has already allocated funding to this program and Council expects to be able to fund its contribution in the next financial year. However, state and Council funding combined is likely to allow for the acquisition of only one property. The Floodplain Management Committee recommended in the FRMP that a request be made to the federal government to consider a 2:2:1 funding arrangement as this would assist in the program's successful implementation. The LCC will make a submission to the federal government to request a change in funding arrangements

2. The NPA and NDRRA can be rigid and administratively burdensome without improving accountability or certainty of funding.

   Some of our members have reported that complying with reporting and administration requirements for both the NDRRA and NPA are resource intensive and often unnecessarily onerous. In particular we refer the Commission to the observations about NDRRA governance and operational arrangements made by Shoalhaven City Council (an FMA member) in its submission to the Inquiry. We also note the findings of the National Commission of Audit regarding the administration of the NDRRA claims process which suggest that many councils struggle to comply with documentation and other requirements[3].

   Where recovery and reconstruction funding is concerned, the FMA suggests greater flexibility in funding arrangements to enable local governments and other agencies to determine the best use of funding in the particular circumstances. Reconstruction after a flood should not be automatic and rigid eligibility criteria may not allow investment in the optimum outcome for a particular community after a specific event. A more efficient approach may be to direct funding toward relocation or house raising programs, a new levee or other mitigation measures as part of reconstruction or recovery funding. We do not believe an initiative such as the relocation of Grantham should be considered something that should only be funded in 'extraordinary circumstances' (as it was under Category D of the NDRRA).

[2] Federal, State and local governments have committed over $32 million in flood mitigation programs for these three towns which include both flood levees and other mechanisms such as house raising.

[3] http://www.ncoa.gov.au/report/appendix-vol-2/10-9-natural-disaster-relief.html

3. Role for all three levels of government should be maintained.

   We believe that all three level of government must remain involved in disaster funding and flood management more specifically. Local governments will have an understanding of the unique circumstances of their community that State and Commonwealth agencies do not have and should not be expected to have. However we recognise that floods and other natural disasters go beyond local government borders and also need to be managed at a catchment or broader level. Local action needs to be guided – and in some cases, constrained - by clear national floodplain risk management policies and standards. Further, many local councils simply do not have the financial resources to support best-practice flood management including community engagement and maintaining up-to-date flood risk information. State and Commonwealth governments have the financial means and legislative authority to support the investment of local government resources into their areas of expertise.

Investment in Flood Management and Mitigation

Current disaster funding arrangements are focused on response and recovery to the detriment of management and mitigation. In its report "Building our Nation's Resilience to Natural Disasters" Deloitte Access Economics (the Deloitte Report) found that each year an estimated $560 million is spent on post disaster relief and recovery by the Commonwealth Government compared with an estimated consistent annual expenditure of $50 million on pre-disaster resilience: a ratio of more than $10 post-disaster for every $1 spent pre-disaster.[4] This is without accounting for the recovery and reconstruction costs borne by State and Local governments.

Australian and international evidence suggests that increased investment in best practice floodplain management and mitigation measures would reduce the budget impact of recovering from floods for all levels of government. It would also reduce the economic and social cost of floods for individuals and businesses and improve the ability of communities to recover. In particular, we refer to the Deloitte Report's findings about the benefits of pre-disaster funding for Australia and the benefit-cost ratios of the case studies contained in the Report.

Our members have implemented a range of flood management and mitigation measures which have led to savings in flood damages and recovery and reconstruction costs. Just one example is the Deniliquin levee which for a $15.8 million investment will avoid $85 million in flood damages in a one in a hundred year flood[5].

It is important not to limit the discussion of funding and investment in disaster mitigation or resilience to physical infrastructure such as levees. The FMA endorses a holistic approach to flood risk management including, most critically, land use planning and building controls. Levees and other mitigation infrastructure are only one part of an effective flood risk management plan and would ideally only be an option to address legacy issues created by existing development or residual risk following implementation of strong planning and building controls. Measures such as property buy-backs and house-raising together with the implementation of planning and building controls/codes which support flood compatible building also can require significant funding allocations.

[4] Deloitte Access Economics "*Building Our Nations Resilience to National Disasters*" 20 June 2013 *p 19*

[5] See http://www.ministerjustice.gov.au/Mediareleases/Pages/2014/Second%20Quarter/23may2014-DeniliquinFloodLeveeOfficiallyOpened.aspx

To ensure that Government funding is allocated to the right resilience and mitigation options prioritisation needs to be based on appropriate economic value and risk assessment. We note the NSW Office of Environment and Heritage currently uses an assessment system endorsed by the FMA in prioritising applications for new works funding under the Floodplain Management Grants (see http://www.environment.nsw.gov.au/coasts/Floodgrants.htm).

In undertaking benefit-costs analyses 'costs' need to be broadly defined – economic, social, private and public. Opportunity costs also must be considered, for example, making building costs more expensive may make a site less attractive for development meaning less business investment and loss of job opportunities. Equally failure to mitigate might reduce the attractiveness of an area for new business. The FMA believes this will also assist in helping the community better understand the full range of potential costs and trade-offs when making decisions around the implementation of floodplain management plans.

The FMA supports a national approach to floodplain management. There must be a role for the Commonwealth and State governments in prioritising investment in mitigation. However there also need to be mechanisms that allow investment decisions to be made at a local level – by the community that will ultimately bear the economic and social cost of policy and funding decisions.

Betterment or Resilience Improvement Funding

As noted in the Issues Paper and the Productivity Commission's Report on Barriers to Effective Climate Change Adaptation the 'betterment' provisions within the NDRRA have not been widely accessed and there is evidence this is due to unclear administrative and funding arrangements.

Some of our council members report being discouraged from making betterment claims. The reduction in Commonwealth funding from half or two-thirds of the cost of replacement to only one third of the cost of betterment is also a deterrent.

After a devastating natural disaster, governments are quite rightly focused on restoring the community. But as noted earlier in this submission, the period after a flood is the ideal time to try to improve the resilience of the community. The most common example raised by our local government members is rural roads, which often must be constructed in areas subject to repeated flooding and would be re-built to be more resistant to flood damage if funding was available.

The Queensland and Commonwealth Governments established a special $80 million betterment agreement – the Queensland Betterment Fund - following the January 2013 floods that has been used to fund several resilience building projects[6]. The Fund streamlines the process for betterment applications and allows councils to claim costs of restoration under Category B of NDRRA while the marginal cost of betterment is claimed under the betterment provisions.

While the FMA supports efforts to increase investment in more resilient rebuilding of public assets, the establishment of the Queensland Betterment Fund underscores the failure of the 'ordinary' betterment provision to deliver on its objective. Further, it raises questions as to why similar arrangements were not made available to equally worthwhile betterment projects in Victoria and NSW following the major floods of 2011 and 2012.

[6] See http://www.qldreconstruction.org.au/the-queensland-betterment-fund-building-resilience

Comprehensive and permanent reform to the current approach to funding more resilient recovery and reconstruction options is required. The Queensland Betterment Fund is one potential model – a joint Commonwealth and State fund could be created after a disaster reached a certain level of community impact. Creating incentives for local and State governments to have plans in place to improve the resilience of public assets prior to a disaster could support a more streamlined betterment approval process and ensure resilient rebuilding could start just as quickly as replacement.

Other potential betterment or post disaster resilience improvement models include:

- Providing for a resilience component as a percentage of recovery and reconstruction funding as provided for under United States Federal Government flood recovery arrangements
- Betterment as the default rebuilding option subject to a benefit-cost analysis, that is, a presumption in favour of betterment unless shown not to be cost-effective
- Concessional loans for local councils to deliver betterment proposals, and
- Lump sums for reconstruction that allow state governments/councils to decide whether to rebuild, improve, relocate or abandon.

Flood Risk Information and Community Engagement

Having access to flood risk information underpins effective flood management and our ability reduce the flood vulnerability of communities.

Due to the level of sophistication and accuracy required of flood studies, it is generally beyond the scope of councils to produce new flood maps on their own, relying instead on experienced consultants to undertake modelling. This can be a costly and time-consuming process, and requires a high level of technical support from State Government agencies. A grants program or other additional funding to help local governments recruit and retain specialist personnel to undertake disaster management activities, such as floodplain risk management, could help to address this issue.

State and Commonwealth agencies and stakeholder industries have in recent years begun investing in national information sharing systems for flood studies and mapping, to provide wider public access and consistent data sets. Examples include the Australian Flood Risk Information Portal (AFRIP, Attorney-General's Department/Geoscience Australia)[7] and the National Flood Information Database (NFID, Insurance Council of Australia / Risk Frontiers)[8]. However, these initiatives and the collection, availability and dissemination of flood related information more generally remain inhibited by ownership and licensing issues, lack of standardisation, the varied quality of data and the absence of a clear national framework.

As most flood related risk information is generated using some level of State and Commonwealth funding the current situation represents an inefficient use of government resources. Maximising government investment in understanding flood/natural hazard risk demands greater availability and accessibility of data to enable informed decision making by all sectors of society.

Establishing robust frameworks for custodianship, collection and maintenance of flood risk and related information – such as information on flood management assets, building attributes and building floor heights – must be a priority. More importantly, these frameworks will not be effective unless supported by recurrent and consistent funding. Given the range

[7] http://www.ga.gov.au/hazards/flood/floods.html

[8] http://www.insurancecouncil.com.au/affordability

of stakeholders who may use this information for commercial purposes the Commission should consider how cost-recovery models or private investment may assist the government in funding flood and other natural hazard related information sharing systems.

Educating and engaging the broader community on their vulnerability to the impact of flooding and other natural hazards is also essential to building resilience. The FMA supports transparency and education around flood risk. We acknowledge many of our local government members face political and public pressure due to perceptions – justified or otherwise – about the impact releasing flood risk information has on property values, development opportunities and insurance premiums.

However, our position is that being open about the potential impact of flooding is in step with the National Strategy for Disaster Resilience and its objective of creating a truly disaster resilient community that understands and manages the risks it confronts. The FMA has been involved in a host of community engagement and education initiatives including, most recently, flood insurance education seminars coordinated by NRMA Insurance[9]. Community education and engagement is also the key to creating the political incentives to invest in mitigation funding. Natural disaster funding should support both (a) research into effective community engagement and (b) implementation of engagement.

Finally, we note the Hawkesbury-Nepean Valley Flood Management Review Stage One Report (the H-N Valley Report)[10] made observations about accessibility of flood risk information that go beyond the Hawkesbury-Nepean Valley and are relevant in the NSW and national context. Recommendation 16 'Develop mechanisms and arrangements to promote and provide greater access to flood risk information'[11] outlined a series of actions/activities to improve access to information on flood risk:

- encouraging disclosure of flood risk information in planning guidance, grant conditions and through other mechanisms as appropriate
- establishing standards for the online display and accessibility of spatial flood risk information for the community, insurers and infrastructure providers
- developing and maintaining a mechanism for delivery of information on flood risk, ensuring consistent display, ready access for the community, insurance industry and infrastructure providers, and links to flood education resources
- liaising with the insurance industry and the National Flood Risk Information Project [now the AFRIP]regarding access to and use of flood risk information
- investigating and resolving data licensing issues to improve the accessibility of flood information within government and to infrastructure providers, insurers and the community.

We refer the Commission to the H-N Valley Report and these recommendations as well as the issues raised by the Australian Business Roundtable's submission regarding hazard research and information.

Land Use Planning and Building Controls

Managing flooding – and other natural hazards – must be a central consideration in developing land use planning policies at a State and local government level.

[9] See page 4 of the Insurance Australia Group Submission to the Productivity Commission Inquiry into Disaster Funding for further information.

[10] Hawkesbury-Nepean Valley Flood Management Review Stage One Review Report March 2014, NSW Department of Primary Industries, Office of Water

[11] See page 54 of the Report

Land use plans in each state are typically prepared as part of a hierarchical series of plans reflecting the level of detail and geographic area to which they apply (for example state policies, regional plans, local plans/planning schemes). The state government or local government may be principally responsible for different planning layers but ultimately both will have an interest in the planning outcomes.

Notwithstanding attention given to improving the understanding of flood risk management among planners in recent years, there remains a lack of detailed knowledge within the profession[12]. Preparing clear guidelines for planning purposes, standardising key components of flood risk planning outcomes and supporting continuing education of planners is critical to delivering practical and consistent input to the preparation of planning strategies and planning controls[13].

Establishing national and/or state guidelines and investing in the education of planners and others involved in the planning and other decision making processes can provide significant reductions in future flood damages and loss of life by providing direction as to:

- Appropriate formats for flood maps for planning purposes that consider the full range of flood risks, communicate flood risks to the general public clearly without creating unnecessary alarm and link with effective standardised planning controls.
- Applying a risk management approach to determining suitable land use types within different parts of floodplains having regard to the nature of the hazard and evacuation difficulties in any particular location. Governments and communities need to consider the long term cost to both home owner and government of 'affordable housing' in floodplains. For example, Emergency Architects Australia's report on the 2011 Queensland floods highlighted the extensive damage caused to properties in Goodna which were sold as more affordable land and home packages[14].
- Ensuring the benefits of mitigation are not eroded by relaxing planning controls. Gold Coast City Council was awarded the FMA NRMA Insurance Excellence Award for choosing not to lower flood planning levels following the raising of the Hinze Dam wall in 2012. This extended the benefit of flood protection beyond 2060. Given the level of community debate around the issue the GCCC's decision is also an example of an investment of political capital in disaster resilience.[15]
- Preparation of strategic plans and building codes that consider issues beyond structural safety to consider the cost of recovery and rebuilding properties. An example of this approach is Lake Macquarie City Council's "Development Guidelines for Resilient Housing in Lake Macquarie" which have been included in the Lake Macquarie Development Control Plan to complement more traditional controls on buildings in flood prone areas such as floor height requirements and set-backs from the lake foreshore.[16]

The H-N Valley Report highlights that in NSW there is currently no effective state-level policy for land use planning in relation to natural hazards including flooding. In addition, there is no planning guideline relating to flood prone land, resulting in a lack of clear principles to guide

[12] Time to Stop Blaming the Planners – How Floodplain Managers Can Improve the Planning Process, P Grech and D Bewsher, May 2013 http://floods.org.au/wp-content/uploads/Paul-Grech-Full-Paper.pdf

[13] see FMA submission to the proposed NSW Planning Act 2013 http://floods.org.au/wp-content/uploads/FMA-Submission-on-New-Planning-System-for-NSW-White-Paper.pdf

[14] Queensland Flood Relief – Final Report November 2011, Emergency Architects Australia p15

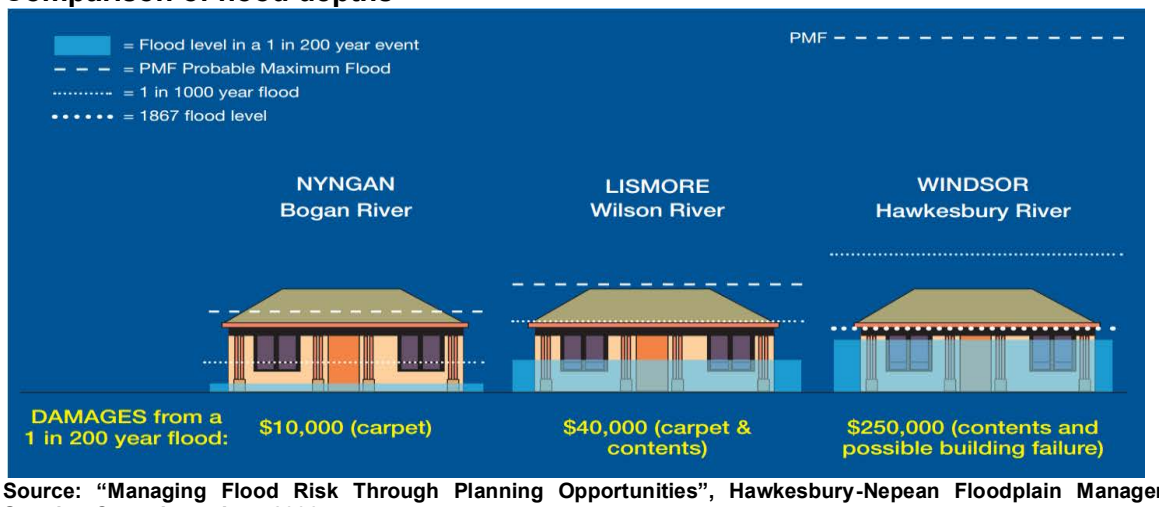
[15] See Works and Planning Levels: A Policy Rethink? The Gold Coast Experience, May 2014, H. Mirfenderesk et al at Attachment A

[16] See http://www.lakemac.com.au/downloads/0B733F46599114EC97CA5148540EDDDDC3782A23.PDF

land use planning and development assessment in these areas[17]. The FMA understands that this is an issue also relevant for Queensland and other States.

The H-N Valley Report also emphasises that the widespread practice of using the 1 in 100 year flood level as a default in land use planning and development controls is highly problematic. Using this measure may not be effective in reducing the vulnerability of property to flood damage in some flood prone areas including the Hawkesbury-Nepean Valley. This is because there are significant differences in depths for some catchments and therefore the potential for substantial flood damages between 1 in a 100 year flood levels and the Probable Maximum Flood (see diagram below). State and local planning policies need to support the use of controls for development above the 1 in 100 floor level in such circumstances.

Comparison of flood depths



Source: "Managing Flood Risk Through Planning Opportunities", Hawkesbury-Nepean Floodplain Management Steering Committee, June 2006

Flood Insurance

Flood insurance has been a priority issue for many of our members over the past two to three years.

Following the series of major floods between 2010 and 2013 many residents and businesses in flood prone areas have seen very significant increases in premiums and there has been a lack of accessibility in some areas. There are several reasons for these increases including the extension of flood cover as standard throughout the market, insurers responding to increased cost pressures such as reinsurance, natural hazards claims costs and claims inflation that occur after significant weather events and a shift toward address based pricing. For our local government members their primary role in both understanding and managing flood risk means they are often the first port of call for residents concerned about flood insurance.

The FMA views the wider availability of flood insurance in recent years as a positive development. Insurance is an absolutely essential part of risk management arsenal. We have been at the forefront of bringing together insurers and local governments and other flood management stakeholders via the FMA network. The FMA encourages members to enter dialogue with insurers and share their flood risk information to the greatest extent possible and appropriate. Creating greater consistency between governments' and insurers'

[17] See pages 57-58

understanding of risk in a local community reduces confusion and debate and improves the ability of all stakeholders to work together.

Importantly, we have evidence that premiums for many properties at some risk of flood often go down after local governments provide insurers with more up to date or sophisticated data. For example, the ICA announced that Tweed Shire Council releasing high-quality information to insurers could lead to a reduction in flood premiums for about 7900 homes[18].

When insurers have access to high-quality flood related data the issue of high premiums is ultimately about the vulnerability of homes to flood damage. While we acknowledge that high insurance premiums have created hardship for a significant number of people in flood prone areas, the cost of insurance is a valuable price signal or indicator of risk. Where people may ignore messages from Council or education campaigns they will not ignore the shock of an insurance premium. Provided those premiums do accurately and reasonably reflect the cost of the risk, it is a legitimate incentive for individuals and governments to address the underlying cause – the vulnerability of property to flood damage.

There have been several recent examples of floodplain management and mitigation leading to a reduction in flood insurance premiums including levees in the Queensland towns of Roma, St George and Charleville. However it also important to look to experience in other countries such as the United States where over reliance on levees to reduce insurance premiums has led to poor resilience outcomes in some cases[19]. As mentioned previously in this submission, the approach to flood management must be holistic.

Federal and State Governments could also play a role in boosting financial incentives for individuals to improve the resilience of their properties particularly after an event. For example, NDRRA Category A grants could be adjusted to assist home-owners to rebuild with flood compatible materials or raise their homes. Alternatively, the Federal Government could support home owners who invest in improving the resilience of their home through tax incentives.

There is much greater scope for the insurance industry to contribute to effective flood risk management, including community education, by collaborating with all levels of government. For example where insurers are given access to government funded data or other resources they could publicly disclose their use of that information in making flood risk assessments. This would reduce community confusion about when and how local government information is used by insurers. It would also improve consistency of flood risk messaging between local government and the insurance industry. It would also assist in flood data gap analysis and determine where improvements might be required.

In addition, the insurance industry could also help inform planning, mitigation and other flood management related decision making by providing governments with information about the likely impact of decisions on insurance premiums. This would assist in helping the community better understand the full range of potential costs and trade-offs. While administration, competition and intellectual property issues would need to be worked through, a framework for facilitating greater and more systematic insurance industry participation should be considered.

Finally, while there is some inconsistency between our members in their willingness and ability to engage with insurers and share information, many of our members have strongly

[18] See Attachment B Joint Tweed Shire Council and Insurance Council of Australia Media Release 4 October 2013

[19] See Managing Flood Risk in the US in Changing Conditions, Larry Larson, May 2013 http://floods.org.au/wp-content/uploads/Larry-Larson-Session-1.pdf

advocated for a coordinated or centralized approach to collecting, storing and delivering data to the insurance industry. This should include funding for consolidating information - such as development controls, building attributes and performance and floor heights - that assist the insurance industry in improving the accuracy of premium calculations. These proposals are consistent with our earlier recommendations about the custodianship, collection and maintenance.

Conclusion

The Floodplain Management Association appreciates the opportunity to provide input to the Inquiry on behalf of floodplain management authorities, businesses and professionals. The FMA brings together expertise and experience from all aspects of flood prevention, preparedness, response and recovery, which we would be pleased to contribute further as the Inquiry progresses.

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