Lake Macquarie City Council

13 June 2014

Natural Disaster Funding Arrangements
Productivity Commission
Locked Bag 2
Collins St East
Melbourne Vic 8003

Dear Sir/Madam

Subject: **Submission on Productivity Commission Inquiry into Natural Disaster Funding Arrangements**

Background

Lake Macquarie City Council supports approximately 200,000 residents living in urban and peri-urban settlements around Lake Macquarie, the largest coastal lake in NSW. This large coastal estuary is subject to the effects of sea level rise, and to catchment flooding and Council is actively assessing the risks to coastal and estuary settlements from these hazards. Council is working with government and community to decide changes to its land-use planning system and development controls in response to the changed risks

Lake Macquarie City Council is of the opinion that current natural disaster funding arrangements emphasises disaster recovery funding at the expense of potentially more cost-effective natural disaster planning, education and mitigation activities. Council welcomes the Productivity Commission Inquiry and is pleased to provide this submission in support of more flexible funding arrangements.

Role of Local Government in Emergency Management

The *NSW State Emergency and Rescue Management Act (1989) (the Act)* recognises the need for a coordinated response to emergency management and describes the responsibilities of various State and Local Government agencies in response to an emergency.

Under these arrangements, Local Government generally plays a supporting role to NSW State Government agencies in response to a local emergency.

Importantly Local Government plays a critical, long-term role in emergency prevention, preparedness and recovery through hazard assessment, community education, mitigation works and land-use planning.

126-138 Main Road Speers Point NSW 2284 • Box 1906 Hunter Region Mail Centre NSW 2310
Phone: 02 4921 0333 • Fax: 02 4958 7257 • ABN 81 065 027 868
E: council@lakemac.nsw.gov.au F: www.facebook.com/lakemaccity T: www.twitter.com/lakemac
www.lakemac.com.au

Our Ref: F2009/01587 Your Ref:

Floodplain risk management

Flooding is the most costly natural disaster in Australia contributing 29% of the total cost of natural disasters in Australia in the period from 1967 to 1999[1].

Flooding is however perhaps the most predictable of natural disasters at least in terms of spatial extent and likely frequency, and can readily be managed through a combination of flood modification, response modification and property modification measures.

In NSW, responsibility for Floodplain Risk Management falls to Local Government with financial and technical support provided through the NSW Government.

Indemnity under Section 733 of the *NSW Local Government Act (1993)* provides further incentive for Local Government to undertake floodplain risk management planning activities in accordance with the NSW Floodplain Development Manual (2005).

The NSW Government provides funding to Local Government through the NSW Floodplain Management Grants program. This competitive grant program requires a direct financial contribution from Local Government whereby Council is required to provide $1 for every $2 of NSW Government grant funds provided.

While these arrangements provide critical support for Local Government to engage in floodplain risk management, some important barriers and dis-incentives remain.

Major mitigation options such as construction of flood management works are frequently beyond the economic capacity of single Local Governments even when a 2:1 funding subsidy is available through State Government grant programs.

Similarly, Local Governments usually have insufficient expertise in-house to undertake the complex hydraulic and hydrologic modelling necessary to undertake a comprehensive flood study in accordance with NSW Government requirements. Staff reductions within NSW Government agencies further constrains access to this expertise.

In response, Councils are required to engage external consultants to undertake this work at significant expense, in the order of $200,000 to undertake a Flood Study and associated Floodplain Risk Management Plan.

This places a significant financial burden on Council even when subsidised by NSW Government at the current 2:1 funding ratio. These costs are further multiplied when Councils are required to manage the flood hazard from multiple catchments.

There is growing financial pressure on Local Government to manage cost-shifting from other levels of government and to deliver an increasing range of community services to an expanding population. In this environment, there is a strong incentive to invest in immediate service delivery initiatives rather than investing in works to mitigate for possible but infrequent natural hazards.

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[1] *Economic Costs of Natural Disasters in Australia* (2001). Bureau of Transport Economics. Report No 103.

In the event of a disaster, costs to affected individuals and restoration of essential public assets are heavily subsidised by the Australian Government. This arrangement creates a disincentive for State and Local Government to invest in planning and education activities and undertake mitigation works.

Council supports greater flexibility in funding arrangements from the Australian Government to support planning, community education, increased building resilience and mitigation works to provide greater incentives for Local Government to participate in these activities and build communities that are more resilient to a range of natural hazards.

Disaster Resilience

There are new and existing opportunities for individual property owners to do more to 'flood-proof' their properties through use of resilient building design and materials, re-siting existing buildings, raising buildings, and relocating new development. Incentive schemes to encourage greater up-take of these options are generally restricted to voluntary house-raising or buy-outs in extreme flood hazard areas.

More flexible and innovative approaches to these options, and better sharing of costs between owners, government, and insurers, could provide long-term benefits to many communities, especially where projected sea level rise will increase the flood hazard over the projected asset life.

Land-use planning

Major mitigation options are frequently beyond the economic capacity of single Local Governments. Exposure and vulnerability, however, are factors within the direct control of Local Governments through the implementation of appropriate planning and development controls.[2]

Studies continue to stress the importance of land-use planning in mitigating the impacts of natural disasters.[3] Land-use planning provides a comprehensive set of tools to reduce exposure to hazards and consequent risk by controlling the optimal location of development that reflect the goals and aspirations of the community.[4] Managing flood and other natural hazards must be a central consideration in developing land-use planning policies at State and local government level.

Council undertakes land-use planning to shape the future of the City through the implementation of the City's strategic plan, *Lifestyle 2030 Strategy*. Council is guided by state planning legislation when assessing the suitability of development on land exposed to natural hazards.

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[2] Davies, T and Campbell (2014). *Lake Macquarie Resilience and Insurance Affordability Project.* Australian Resilience Taskforce.
[3] Jenkins, J., Poulier, R., 2006, *Local Government Land-use Planning and Risk Mitigation: National Research Paper*, SMEC, Victoria.
[4] Burby, R.J., Deyle, R.E., Godschalk, D.R., Olshansky, R.B., 2000, 'Creating Hazard Resilient Communities Through Land-use Planning', *Natural Hazards Review*, May, pp.99-106

Council must follow Section 117 directions of the *NSW Environmental Planning and Assessment Act (1979)* when amending the Lake Macquarie Local Environmental Plan 2004 and the draft Standard Instrument (draft Lake Macquarie Local Environmental Plan 2014). Issued by the Minister, s117 directions include assessment of hazards and risks such as flood prone land and planning for bushfire protection. Council is required to consult relevant NSW Government authorities in order to progress the plan making process.

Council planning officers rely on available hazard mapping and relevant policies and guidelines to inform assessment of risks (for example, NSW Floodplain Management Manual 2005, Planning for Bushfire Protection 2006). While bushfire hazard mapping has been centralised with the NSW Rural Fire Service, mapping of other hazards remains the responsibility of Council. Council's Development Control Plan also includes provisions for assessing hazard risk during the statutory planning process.

Access to reliable and understandable information, including methodologies for decision-making and determining costs and benefits of mitigation options in addition to standards and benchmarks will facilitate effective hazard risk management planning by Local Government. Lack of expertise and resources to obtain such information and methodologies remains a significant barrier to Local Government engagement in hazard risk management in land-use planning.

Lake Macquarie City Council has relied heavily on information and advice from organisations such as the CSIRO, the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC), and the National Climate Change Adaptation Research Facility (NCCARF) in developing assessments of climate change hazard, and ways to manage and reduce risk. Further research is required to understand the implications of climate change on natural hazards such as bushfire regime, heatwaves and more frequent and intense storm activity.

Local Governments do not have the capacity or resources to carry out such research and analysis. Council supports continuing investment by the Australian Government in research in climate change, climate risk assessment, adaptation options, and natural disaster management.

National resilience standards and financial models

Land-use planning can help reduce exposure to natural disaster risks by preventing development in high hazard areas. Nonetheless, given land-use planning decisions are the result of trade-offs between economic, social and environmental considerations, including exposure to natural hazards, rarely if ever is it the case development can occur in hazard free areas.

Hence, development will invariably require mitigation investment in the form of building and design standards and supporting infrastructure. Land-use planning based on sound knowledge of hazards should guide the application and revision of statutory planning measures.

This includes the introduction of new design standards with changing hazard regimes and thresholds. Developing building and infrastructure design standards that are adaptable to changing and uncertain climate conditions, rather than the current static baselines, will further require significant effort and resources.

There is a similar lack of legal and practical experience in developing appropriate financial models for land-use planning decisions, for example to provide compensation and support to private landholders and/or for public funds to be potentially available for infrastructure upgrade, and/or property purchase and relocation costs in some cases. These are issues that are best addressed at the national level.

Betterment Provisions

It is understood that current natural disaster funding arrangements generally provide for replacement of damaged assets and infrastructure on a like for like basis. Although "betterment provisions" are in place to rebuild important assets to an improved and more resilient standard, Council is not aware of instances where this has occurred.

With the prospect of sea-level rise along with more frequent and intense climate events, there is an argument that natural disaster funding be directed towards improving the resilience of critical infrastructure to maintain its function in the event of a natural disaster, as opposed to replacing it after the event.

Council supports a more flexible funding approach to direct investment towards improving the resilience of critical infrastructure to maintain its function in the face of more extreme and frequent climate events.

Role of community engagement in land use planning and risk assessment

Community engagement is a necessary part of land-use and statutory planning in order to balance the material effects of planning decisions on communities (e.g. on property values, development opportunities and insurance premiums) with appropriate hazard risk management.

Council continues to engage it's constituents on the relationship between land-use and statutory planning and exposure to hazards. For example, Council is currently undertaking a comprehensive engagement program with several communities identified as having a high exposure to flooding risks and future inundation due to sea level rise.

The resource burden placed on Council to undertake this engagement process is significant owing to the complexity and at times politically sensitive nature of solutions (e.g. disclosure of hazard information on s149 certificates). However, it is for these reasons Council is of the opinion this level of engagement is fundamental to achieving effective strategies that both appropriately address hazard risk and the aspirations and concerns of the community.

Special provisions are necessary to effectively engage with and support the most vulnerable groups within the community such as the elderly, culturally and linguistically diverse or people with a disability in disaster preparation and response, placing an additional financial burden on Local Government

Council recommends that natural disaster funding arrangements make provision for funding activities to effectively engage all sectors of the community including the most vulnerable.

Insurance

The Lake Macquarie community may experience increasing risks due to changes in the frequency and severity of natural hazards and development in hazard prone areas. While investment in preparation and mitigation activities is likely to improve the community's

resilience to the impact of natural disasters, insurance remains an essential strategy to aid post-disaster recovery and amortise the cost of reconstruction.

Residents and businesses within some areas of Lake Macquarie have experienced significant increases in insurance premiums in recent years. Through recent public workshops, participants have reported insurance increases up to 300%. Several factors contribute to these increases in costs, these are discussed in turn below.

Introduction of new insurance products

Home insurance for flood damage has only been widely available on the Australian market since 2009. The inclusion of flood insurance in retail premiums has increased their cost.

Value of development

The population of Lake Macquarie City Council area is expected to increase by approximately 60,000 to 20315 driving increased demand for residential housing.

Increasing value of development and increasing costs for repair and reconstruction after a natural disaster drives increases in insurable losses. These factors put upward pressure on insurance premiums.

Understanding of exposure to risk

Insurance companies use a range of information to calculate the flood risk for individual properties including flood studies conducted by insurers themselves or by State and Local Government, terrain data from digital elevation models and property address information to calculate flood risk measures for each address point.

Insurers will assess the risk in different ways and will consider risk exposure among a range of other factors such as market share, product cross-subsidisation, profit margin, tax and reinsurance costs.

Where reliable data on risk exposure in not available, insurers will take a conservative position that assumes a high risk and price their premiums accordingly or withdraw from the market. It is likely that information asymmetries rather than accurate assessment of risk is affecting premiums in many cases.

Re-insurance

Council understands that Australia has recently been reassessed on international reinsurance markets, resulting in an increase in what Australian insurers pay for reinsurance. Reinsurance is an essential purchase if insurers are to be able to offer insurance directly into the market for catastrophe or extreme weather events. Higher reinsurance costs are typically passed on to policy-holders.

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[5] Lower Hunter Regional Strategy. 2006. NSW Department of Planning.

Council is of the view that improved access to flood information to insurers and the public will reduce information asymmetries and provide greater transparency in insurance pricing, putting downward pressure on insurance premiums. As State and Local Governments complete more high-quality flood studies, insurers can more confidently judge the risk and offer appropriately priced cover.

Council is aware of examples whereby residents have negotiated substantial savings in premiums by demonstrating that their dwellings are above predicted flood levels and therefore not exposed to the hazard.

Council is working on several initiatives to improve the quality and availability of flooding information to improve transparency and put downward pressure on insurance costs. For example,

Council is working to establish a free on-line service whereby residents can obtain information on flood hazard pertaining to their own property and obtain flood mapping derived flood studies conducted by Council in partnership with the NSW Government.

Council is also working collaboratively with the Australian Insurance Council to:

- Share information on flood hazard and risk throughout the City so that insurers can make informed decisions on the level of risk and determine risk based insurance premiums.
- Undertake actuarial analysis to assess the relative changes in insurance premiums that can be achieved through detailed assessment of flood risk.

Through this work, Council hopes to be able to achieve a reduction in insurance premiums to encourage uptake of insurance products to aid recovery in the event of a natural disaster.

However, for commercial reasons insurers are reluctant to provide details on their risk assessment and retail pricing policies. This makes it difficult for Councils and residents to see and assess the connections between their flood risk mitigation and insurers' premiums. If insurance price signals are to be effective, it has to be clear how they connect to specific actions. Government and the insurance industry through the ICA could assist in improving how this information is communicated, while protecting the commercial sensitivities of individual insurers.

Council is aware of an initiative by the Australian Government to establish a national flood information database, to make flood data widely available and would encourage further investment in this initiative. Such an initiative raises a number of issues including collection procedures, data standards, custodianship and maintenance of the data that could present barriers to the introduction of such a system. Nevertheless, Council supports the concept of coordinated and consistent approach to collecting, storing and delivering hazard data to insurers.

Council would also welcome initiatives by the Australian Government that would encourage insurers to provide information back to Council on potential premiums when undertaking flood management plans including assessing land-use options, building controls and mitigation options.

Council encourages the Australian Government to work with the Insurance Industry to provide greater incentives for those that reduce their vulnerability to natural hazards. Such initiatives could provide strong price signals and financial assistance to encourage residents in hazard prone areas to implement preventative measures and mitigation works.

Conclusion

The increasing value of assets and infrastructure, pressure for development in hazard prone areas and the prospect of more intense and frequent climate related weather events expose the Australian community to more serious consequences from natural disasters.

Council supports the position that greater effort needs to be directed towards reducing exposure to natural hazards through planning controls, reducing vulnerability to natural hazards through building codes and standards and reducing the impact of hazards through strategic investment in mitigation measures.

Local Governments throughout Australia play a critical role in emergency prevention, preparedness and recovery through hazard assessment, community engagement, land-use planning and mitigation works.

Local Governments however are under increasing financial pressure and often lack the expertise and resources to undertake the research, planning and mitigation works necessary to reduce their communities' vulnerability and exposure to natural disasters.

Council supports greater flexibility in funding arrangements from the Australian Government to support all levels of government to:

- support research and analysis on hazard exposure, with particular emphasis on changes to hazard resulting from climate change.
- apply sound land-use planning principles to reduce hazard exposure,
- engage the community and vulnerable groups in particular, in disaster prevention and preparedness activities,
- improve design standards and implement mitigation works to reduce exposure and vulnerability
- invest in critical infrastructure to improve resilience and maintain function as opposed to post-disaster reconstruction to pre-disaster standards,
- work with the insurance industry to provide greater incentives to those that reduce their vulnerability to natural hazards

Insurance remains a critical component of post-disaster recovery. Initiatives by the Australian government to improve the availability of hazard data so that insurance premiums accurately reflect the level of risk are supported.

Thank you for the opportunity to contribute to this important inquiry. Should you require further information, please contact me .

Yours faithfully

Symon Walpole
Acting Manager
Sustainability Department