Victorian Coastal Council

13 June 2014

Ms Karen Chester and Mr Jonathan Coppel
Natural Disaster Funding Arrangements
Productivity Commission
LB2 Collins Street East
Melbourne VIC 8003

Dear Ms Chester and Mr Coppel

SUBMISSION TO THE NATURAL DISASTER FUNDING ARRANGEMENTS

I refer to the attached Victorian Coastal Council Submission to the Natural Disaster Funding Arrangements Inquiry being completed by the Australian Productivity Commission.

The Victorian Coastal Council (VCC) was established in 1995 under the *Coastal Management Act 1995*. It is made up of nine skills-based members appointed by the Governor in Council on the recommendation of the Victorian Minister for Environment and Climate Change (the Minister). The VCC has a strategic planning and advisory role to the Victorian State Government in relation to the Victorian coast. A key responsibility of the VCC is to develop and report on the implementation of the Victorian Coastal Strategy.

The VCC welcomes the opportunity to provide a submission to this Inquiry given the interest and involvement of the Council in issues of coastal hazards, vulnerability assessments, disaster impacts, and local and state coastal management and policy frameworks.

Should you have any queries regarding our submission, I can be contacted via the Executive Officer of the VCC, Nicola Waldron,

Thank you for the opportunity to make a submission to the Natural Disaster Funding Arrangements Inquiry.

Yours sincerely

Jon Hickman
Chair, Victorian Coastal Council

PO Box 500, East Melbourne, Victoria 3002
Email vcc@dse.vic.gov.au www.vcc.vic.gov .au

PRODUCTIVITY COMMISSION INQUIRY

NATURAL DISASTER FUNDING ARRANGEMENTS

SUBMISSION FROM THE VICTORIAN COASTAL COUNCIL

The VCC is responsible for statewide strategic coastal planning and preparing a Victorian Coastal Strategy (VCS) every five years. The 2008 VCS introduced a sea-level rise planning benchmark of 0.8m by 2100. The establishment and refinement of criteria for use and development on coastal Crown land is another significant achievement for a previous VCS. A revised VCS has been submitted to the Victorian Government and is currently under consideration.

The VCC also provides advice to the Minister on matters related to the coast and facilitates the operation of the three regional coastal boards.

The VCC welcomes the opportunity to provide a submission to this Inquiry given the interest and involvement of the Council in issues of coastal hazards, vulnerability assessments, disaster impacts, and local and state coastal management and policy frameworks.

This submission uses some of the questions outlined in the Productivity Commission Issues Paper as a framework. The VCC notes and discusses the following elements of the Terms of Reference for this inquiry:

'The impacts and costs of extreme weather events can be expected to increase in the future with population growth and the expanding urbanisation of coast lines and mountain districts near our cities' (p35 Issues Paper).

The real issue that we need to first examine is the changing nature of global weather. Weather is the primary issue, not population growth or urbanisation. Expanding urbanisation of coast lines is a secondary issue.

Science accepted by the Australian Government indicates that with more energy in the global atmosphere through the enhanced anthropogenic Greenhouse Effect, volatility in weather patterns is expected to be more intense and possibly more frequent. We need to plan for areas currently and potentially vulnerable to these impacts, particularly on the coast where the combined impact of wind, sea and water run-off from catchments will have long-term as well as often immediate impact. Consequently, planning for and responding to extreme weather and natural disasters needs to be adaptive.

Expanding urbanisation will lead to more sealed surfaces, more flash flooding and less permeable surfaces exacerbating the impacts of natural disaster events. Monitoring and reviewing land-use planning arrangements, particularly regarding the impact of flood heights and sea levels are critical for disaster planning. Population growth and expanding urbanisation of coast lines is a consequence of planning decisions which, if made poorly in vulnerable areas, will exacerbate the impact of extreme weather events.

Instruments such as the VCS facilitate the orderly and long-term consideration of such issues on a state-wide basis. More fragmented planning frameworks run the danger of inconsistency and being driven by particular local interests.

1. *What are the governance and institutional arrangements relating to natural disaster mitigation, resilience and recovery in each state and territory? What are your views on how these arrangements could be improved?*

   In Victoria, some funding is available for natural disaster mitigation, resilience and recovery. States and territories also have the ability to access funding under the Natural Disaster Relief and Recovery Arrangements (NDRRA). This inquiry provides an opportunity for the focus to shift to the need for "betterment" criteria in accessing funding. This would require that those applying for funding will need to demonstrate that they are not simply replacing damaged structures with like structures but improving what was there in order to better deal with future possible natural disasters. For example this could require raising the floor heights to better handle future flooding events or building in less vulnerable areas to reduce the future impact of flooding and storm surge events.

   Further, natural disasters associated with extreme events in coastal areas subject shorelines and adjoining tidal lands to both immediate and longer term adverse impacts. Coastal lands are transient in time and space and coastal lands will be lost and in some cases gained in the future. Europe and the USA have changed their approach to capital expenditure on infrastructure and its maintenance, on building design and location, and on the sanctity of private property protection. The report produced by Deloitte Access Economics (DAE, 2013) succinctly makes the point that resilience and preparation requires more investment. However, it could be argued that it does not identify some of the additional cost burdens facing Australian society. In particular the extent to which, over time, planning systems have allowed coastal settlements to be placed in vulnerable locations. Examples include houses and other infrastructure on or near the edge of eroding dunes and cliffs, critical infrastructure in storm surge zones or flooding areas and drains that back up with salt water on king tides. Future public investment on the coast, and elsewhere, should have a long term orientation and not create facilities that will need to be replaced due to, or protected from, the impacts of climate change.

   The VCC recommends that European and USA examples be investigated and consideration is given to applying them to the Australian context to reduce our increasing public burden of relief and recovery.

2. *Which state, territory and local government policies cover natural disaster mitigation, resilience and recovery? What processes are used to manage natural disaster risks in government activities?*

   The Victorian Government is undertaking major reform to the State's crisis and emergency management arrangements to create a more disaster resilient and safer Victoria (Victorian Government, 2012). This reform raises the need for an all hazards approach (both natural and human-made) to emergency management as well as building disaster resilient communities. The reform includes natural disaster mitigation, resilience and recovery.

   The Victorian Climate Change Adaptation Plan 2013 (VCCAP) sets out how the Victorian Government is managing the risks of the impacts of a changing climate to our assets, essential infrastructure and services. It outlines six key strategies for considering adaptation:

   1. Managing risks to public assets and services
   2. Managing risks to natural assets and natural resource-based industries
   3. Building disaster resilience and integrated emergency management

4. Improving access to research and information for decision making
5. Supporting private sector adaptation
6. Strengthening partnerships with local government and communities.

The draft VCS supports these reforms and VCCAP through a number of desired outcomes, policies for decision making and actions. For example, revising the criteria for use and development on coastal Crown land, emphasising the need for new development to avoid areas subject to coastal hazards and does not interfere with natural coastal processes, and continuing to set planning benchmarks for sea level rise in the future. The Victorian Government is expected to release this document in 'final' form later in 2014.

3. *What should be the role of the Australian Government in natural disaster risk management?*

The role of states and territories is to manage the risks of and plan for disasters. This planning should be based on the application of national research that avoids jurisdictions replicating the work of others thus 'doubling-up' on effort and cost. Planning should be undertaken in a state/regional context, with the principle of subsidiarity prevailing. Given these roles, the VCC recommends that the role of the Australian Government in natural disaster risk management should be to provide leadership and guidance for state, territory and local governments. Its role should be to act as a broker to the states and territories regarding research and work being completed in the planning and natural disaster fields.

In situations where Australian Government authorisation for projects is required, or where the Australian Government undertakes projects on its own account, an element of the authorisation or approval process should be directed toward ensuring that risk mitigation actions associated with the project are consistent with (or exceed) prevailing state or territory planning arrangements.

The Australian Government should also drive a consistent nationwide approach by sponsoring research, acting as a coordinator and ensuring learnings from states and territories regarding application of the research is shared. This would include publishing flood heights across the country, forecasting sea level changes and education about risk management. Beyond 'risk management' it is also important that the Australian Government continues to have a role in funding response and recovery work once the state/territory government expenditures have reached a certain threshold, given the cost of response and recovery is potentially beyond the financial capacity of state/territory governments. Such a 'funder of last resort' role gives the Commonwealth a legitimate interest in ensuring that risk management arrangements within each state and territory are robust and in line with best available scientific knowledge; however this role needs to be exercised with sensitivity to state and territory situations and responsibilities, rather than imposed as a Commonwealth 'overlay' on state/territory systems .

4. *How should the Commission assess the appropriateness of the level of mitigation, resilience and recovery expenditure?*

It is very difficult and potentially expensive to mitigate a severe flood, storm surge or a strong wind event. Within this context, the VCC recommends that a fit for purpose approach is adopted as opposed to a 'one-size-fits-all' solution. Risk = frequency x consequence. Not every location will experience the same frequency and intensity of natural disasters and consequences will differ. The dynamic nature of the coast will also mean that locations 'at risk' will not be static in time or space. Importantly, not all coastal managers will have the same capacity or the capability

to undertake and fund mitigation, resilience and recovery work. This leads the Council to the view that good land-use planning is the critical element in mitigation and risk management.

5. *Are the current governance and institutional arrangements capable of achieving an effective and sustainable balance of mitigation, resilience and recovery expenditure?*

   As indicated above, the Council is of the view that good land-use planning is the critical element in mitigation and risk management. In this situation governance and intuitional arrangements that surround land-use planning are critical, and the relationships between state/territory governments and local governments are key to this. Again the 'subsidiarily principle' should apply, with principles applying across local government boundaries being established at a 'higher' level.

   Insurance is also an important consideration in this context. The recently released Climate Risk Proprietary Limited (Australia) report (2014) finds that, when it comes to weather related risk, homes in Australia are not equal in the eyes of insurers. Due to development of many vulnerable homes in locations known to be at risk from floods, bushfires, cyclones and severe storms, erosion, drought, and seawater inundation, the report states that *'insurance companies have no choice but to charge higher premiums to cover high probabilities of loss'*. The study also states that climate change is expected to worsen the situation for homebuyers through increases in the frequency and/or intensity of many hazards. The Intergovernmental Panel on Climate Change 5th Assessment Report projects that these escalating hazards will 'increase losses and loss variability in various regions and challenge insurance systems to offer affordable coverage'. The study by Climate Risk Proprietary Limited (Australia) finds that this is not a distant threat, but one that could *'push up some insurance premiums by more than 90 per cent over the period of a 30 year mortgage'*.

   Potentially the biggest challenge is to remove the impact of immediate political considerations from local decision making as higher level principles are applied at the local level. Tough decisions need to be made not to rebuild in areas where the risk outweighs the benefit. New building should be sensitively sited and vulnerable areas should be avoided for development. As discussed in the beginning of this submission, vulnerable areas will change and some areas will become more vulnerable. We need to plan for this and educate the community and industry around the risks posed by natural disasters and the potential financial consequences facing individuals and businesses who locate in vulnerable areas.

6. *Do local governments in particular have appropriate capabilities to undertake cost–benefit analysis of mitigation activities?*

   The implication in this question is that local government will have the financial capacity to undertake necessary mitigation activities, this may be the case in some circumstances but there will be many situations where this will not be the case. As a general principle state agencies (including local governments) should be accountable for the economic and financial analysis that underpins their own investment decisions. Notwithstanding this principle there are capability, capacity and consistency of approach issues, particularly in relation to financial (who bears the cost) analyses. There is a role for the Australian Government and/or state and territory governments in developing and promoting consistent 'standards' for such work.

7. *What mechanisms are available for businesses and communities to contribute to the costs of mitigation and recovery, where appropriate (for example, through the use of property-specific charges to fund some mitigation works)?*

Given the VCC role, our focus is on the challenge of funding mitigation on the coast. Regardless, the following underlying principles and strategies could be applied in broader situations:

- In locations where coastal protection works are considered appropriate, such works may provide local and/or private benefit by protecting property. Such beneficiaries can be reasonably expected to contribute to the capital and maintenance costs of works that protect their assets.
- In many situations coastal facilities and infrastructure also provide broader community benefits than to just those residing in the local area. Where there is a broader public benefit from protection works (such as the maintenance of coastal amenities used by the general public, or ensuring public access to the coast) there should be an proportionate contribution from broader public beneficiaries.
- Financing of coastal mitigation in the short, medium and long term will require a range of approaches. Options to be investigated could include development contributions, charges and levies or a dedicated long-term fund. Changes to State Grants Commission formulae might be considered to give greater weight to mitigation responsibilities of local governments.
- Local charges and levies are a potential mechanism to generate revenue from private, local or broader community beneficiaries of particular projects. Implementing charges or levies for mitigation works would be complex; under current arrangements potentially each instance would involve local government (which would collect the charge) and State government (which might outlay the capital and potentially have responsibility for managing the asset). The process of local charge setting and collecting would best be undertaken within a set of broadly endorsed 'principles' to ensure a consistent state-wide approach.

The challenge of financing coastal mitigation is a long-term one that requires a long-term solution. Annual, ad hoc allocations from State and local government budgets that face a range of other immediate pressures are not the answer. A broader, and long-term, approach to setting priorities for and financing new and existing mitigation measures is warranted - something in the nature of a Future Fund might be warranted.

8. *What impacts do policies regarding land-use planning and infrastructure have for natural disaster risk management at the state and local government levels?*
9. *Is there a need for greater information provision and disclosure in planning decisions?*
10. *What reforms to land-use planning and infrastructure investment would best support cost-effective risk management and understanding of the changes to the risk profile?*

The VCC has grouped together its response to these three questions:

Policies regarding land-use planning and infrastructure have a significant impact on natural disaster risk management at the state and local government level. For example, if houses and other infrastructure are built in coastal low-lying, flood prone or erodible areas they have a significantly higher likelihood of being impacted by a flood or storm surge event. To reduce the risk of coastal hazards Victoria has had a longstanding policy to *'avoid development within sand dunes and in low lying coastal areas'*. This is a sensible, cost effective approach to the changing nature of the coastline.

In relation to reforms, the VCC recommends that the benefits of scenario planning are investigated and applied to land-use planning and infrastructure investment. For example, the University of Melbourne has conducted a study into a more flexible approach to local adaptation along the coast. The three year study working with communities across East Gippsland has found

that triggers for change need to match the pace of environmental and social changes. The lessons from this work need to be shared and this is an example of the work the Australian Government could foster.

Rather than only planning for 0.8m of sea level rise by 2100, it is possible to identify changes in flood frequency, magnitude and duration that will occur sooner and have significant consequences for coastal communities. These socially-relevant triggers accommodate local experience, align with when communities recognise the need for change, and as such provide windows of opportunity to shift to new phases of adaptation. It is not only necessary to have detailed data and models about the nature of environmental change, it is also necessary to understand community perceptions of 'reasonable' risk as well as their aspirations for the future. Resulting from this and other similar studies, using trigger points to initiate adaptation responses (including behaviour change) to erosion, inundation and storm surge is a useful management strategy that could be considered.

The development of trigger points could be informed by coastal hazard modelling and community values. Financial benefits could also be attached to using scenario planning ie. a criteria of accessing federal funding could be the use of scenario planning (or similar) to better involve the local community in the recovery phase after a natural disaster. This would also have flow on benefits to cost-effective risk management and understanding the changes to the risk profile.

The VCC also recommends that a protect, adapt, retreat approach be considered when investigating responses to climate change and that international learning and case studies should be investigated. For example, the barrier along the Thames in London can be re-engineered in a flexible way in say 2030 if needed or the Netherlands approach which involves a fundamental shift in their traditional approach to risk management and in the role of its traditional defence, the dyke. These are a few examples that could be considered in an Australian context, where appropriate.

The VCC thanks the Productivity Commission for the opportunity to input to the inquiry and would be happy to discuss any aspects with you in more detail if required.

References

Climate Risk Proprietary Limited (Australia), 2014. A Climate Risk Report: Buyer-Beware, Home Insurance, Extreme Weather and Climate Change: A report to the Climate Institute, Australia

Deloitte Access Economics, 2013. Building our nation's resilience to natural disasters: Australian Business Roundtable for Disaster Resilient and Safer Communities, Australia.

Victorian Government (2012) Victorian Emergency Management Reform White Paper, Melbourne, Victoria.