



Australian Coastal Society Ltd.
PO Box 1984
Bondi Junction NSW 1355

Committee Secretary

Senate Standing Committees on Environment and Communications

PO Box 6100

Parliament House

Canberra ACT 2600

Inquiry into current and future impacts of climate change on housing, buildings and infrastructure.

Over many years the Australian Coastal Society (ACS) and other organisations have been involved in discussions on ways the Australian Government could have a sustained role in coastal management. At many federal inquiries, and through work with different federal agencies, the case has been strongly put that sustainable development of the nation's coast is central to the health of the Australian economy and environments and the well-being of its communities. Population will continue to grow in coastal cities and towns under current population policy of the federal government and there will be pressure for some of that growth to be accommodated in locations that are vulnerable to natural hazards. These hazards are most likely to become enhanced under climate change.

All this was well documented back in 2009 in various Commonwealth studies including the *House of Representatives Standing Committee* report chaired by Jenny George, and the work of the then **Department of Climate Change** in two reports: *Climate Change Risks to the Australian Coast , a first pass assessment (2009)*; and *Climate Change Risks to Coastal Settlements and Industry, a supplement to the first pass national assessment (2011)*. One of us (BT) was closely associated with all this work as an advisor to the House of Representative Committee and to the DCC. He also assisted the development of CoastAdapt, a program of NCCARF, which was completed last year, and in

the development of the Coastal Reform package in NSW which is about to be implemented.

The current inquiry provides an opportunity to advocate once again for a nationally coordinated and consistent approach to understanding the scale and priorities for managing climate change impacts on housing, building and infrastructure and harmonisation Commonwealth and State and Territory policies for coastal management in this regard.

The matters to be addressed and prioritised for action are set out in items “a” to “n” of the inquiry’s terms of reference. Representatives of the ACS seek to make further representations to the Committee in relation to the current and future impacts of climate change on housings, buildings and infrastructure located in Australia’s coast environments. Our representations will specifically address the selected matters for the Committee’s inquiry:

- a. recent and projected changes in sea level rises, and storm surge intensity;*
- c. recent and projected changes in extreme weather, including heatwaves, bushfires, floods, and cyclones;*
- e. the impact of these changes on the vulnerability of infrastructure in coastal areas;*
- j. the impact of these changes on private and public housing;*
- k. the impact of these changes on public recreation and tourism facilities;*
- l. the impact on financing and insurance arrangements for housing, buildings and infrastructure;*
- m. the adequacy of current state and Commonwealth policies to assess, plan and implement adaptation plans and improved resilience of infrastructure.*

It is frustrating to see how over the years different federal governments switch on and off their approaches to coastal management. The recent demise of NCCARF and formal support for CSIRO in climate change adaptation are examples of retreat from a proactive role in addressing coastal issues as issues of national concern. We continue to look for ways where the Australian

Government can use its various powers to address issues that are left to individual state governments without any national guidance or direction or even sustained financial and technical support.

ACS has noted that we are left with a fragmented approach implemented by each jurisdiction without agreed overarching principles. This situation will become even more serious as consideration is given to the impacts and implications of climate change in urban and periurban sections of coastal Australia. The stripping away of coastal science and management expertise through ongoing reform of federal and state bureaucracies and departmental restructuring is a national issue creating a disruptive and destabilising influence on the capacity of government to respond to the challenge of climate change challenges and the quality of advice provided to elected parliamentary members and Ministers.

With particular reference to “*m. the adequacy of current state and Commonwealth policies to assess, plan and implement adaptation plans and improved resilience of infrastructure*”, there are examples of how Australian governments can collaborate and coordinate their actions on critical issues impacting the well being of communities. One example, relevant to coastal management in the face of coastal development, population growth and climate change, are the national standards we use to guide the design and structural integrity of our buildings and infrastructure – the **National Construction Code (NCC)**. The NCC is managed by the **Australian Building Codes Board (ABCB)**, a joint initiative of Commonwealth, State and Territory governments established by an Intergovernmental Agreement in 1994. A new Agreement is negotiated every 5 years and signed by Ministers of the national *Building Ministers Forum*. The ABCB addresses issues of safety and health, amenity and sustainability in the design, construction and performance of buildings and plumbing. In effect, it is a jointly funded body that is responsible for the NCC which comprises the *Building Code of Australia (BCA)* and the *Plumbing Code of Australia (PCA)*. The NCC guides the states in their statutory obligation for oversight of the building and plumbing regulation within their jurisdiction.

Over two decades of intergovernmental agreements, annual review of building codes and responding to natural disasters (eg. bushfires, cyclones, and

floods) suggest the NCC and ABCB are effective. It's far from perfect but clearly all governments see the benefit of ongoing commitment to an evolving construction code where consistent national standards can be used to address the impacts of natural disaster and related climate change risks. The code provides for local variations to the NCC, to suit each jurisdiction's unique circumstances, and allows for innovative performance based solutions as well as the familiar deemed-to-satisfy solutions. The Federal Government has a seat at the "NCC table", contributing to the development of the NCC and a nationally consistency of approach to construction standards.

So effective collaboration between governments can happen and this is one area where the Inquiry should examine in more detail to establish the adequacy of the current state and Commonwealth policies for responding to the impacts of climate change on the housing, buildings and infrastructure in the coastal zone and existing models suited to a nationally consistent approach to coastal management.

Exploring the example of the NCC model further, how effectively does the NCC address the emerging threats of climate change around the Australian coast? While planning laws reference the NCC for compliance with construction standards, specific requirements for buildings and infrastructure exposed to natural hazards like flooding and shoreline erosion are only triggered when planning laws identify risk areas. Not surprisingly there are significant differences between states and even between local governments within states as to how best to identify the areas at risks and accommodate and adapt to climate change.

The consistent coordination of planning and construction remains difficult, caught as it is at the intersection of jurisdictional interests and responsibilities, but one that demands national guiding principles as we increasingly factor in climate change when determining investment in buildings and infrastructure. Resilience of structures and their location are matters that should use nationally consistent standards in the new climate era. The annual review and update of the NCC negotiated by all governments takes into consideration natural hazards and scientific projections for how these may evolve in a warming world. The challenge is to get similar national consistency on the

principles informing the coastal planning that guides where our buildings and infrastructure are best located.

ACS has members who have been actively involved in local, state and federal coastal management issues over several decades. We believe we can offer information based on this experience that could assist this Inquiry and would be delighted if we could meet with the Committee.

Professor Bruce Thom AM, Founding Chairman of ACS

John Hudson

Manager, ACS Communications

21 February 2018