National Urban Policy
Department of Infrastructure, Transport, Regional Development, Communications and the Arts
GPO Box 3090, Canberra ACT 2601, Australia

3 July 2024

Dear National Urban Policy secretariat

Submission on the National Urban Policy consultation draft May 2024

Dr Jo Mummery and Emeritus Professor Bruce Thom

The Australian Coastal Society (ACS) welcomes the development of a national urban policy for Australia. The ACS is 'dedicated to healthy coastal ecosystems, vibrant coastal communities and sustainable use of coastal resources', and comprises members with strong professional, academic and practitioner expertise (for more information see - https://australiancoastalsociety.org.au/).

The commitment to develop a national urban policy is important as our cities and urban areas are critical in determining the resilience, sustainability and productivity of Australia as a nation. They are also exposed to significant risks and impacts from dynamic coastal processes, a number of which are insufficiently reflected in current planning and decision-making, and climate change will significantly increase the magnitude and frequency of such risks.

This is a concise submission anticipating that there will be further opportunities for engagement in the policy development process. The ACS would welcome such opportunities.

General comments

There is a growing urgency to clearly identify and respond to the national implications of climate change, population growth and ageing infrastructure, which combine to present major and increasing risks to Australia's major coastal urban centres.

Multiple design standards of major infrastructure critical for the functioning and productivity of coastal cities, and for the nation as a whole, have insufficiently taken climate change and sea level rise into account. Of concern, sea level rise above 0.4 m, which is a matter of 'when' not 'if', has major implications for port infrastructure in, for example, Botany Bay, Port Philip Bay, and Brisbane. Sydney airport is also highly exposed to climate change impacts, as documented in the

Australian Governments' first pass national coastal risk assessment, *Climate Change Risks to Australia's Coast*, released in 2009.

There are already risks apparent from storm water and wastewater drainage in major capital cities, which will worsen in the near-term, present a hazard to human health, and have implications for the liveability and resilience of many city areas. Low tides are getting higher, directly resulting in a decline of drainage efficiency leading to increased backwater flooding of properties and infrastructure and higher groundwater levels. Culverts and some major city transport tunnels have also been designed without incorporation of current sea level rise knowledge. Legacy coastal city risks have also been identified for some time, and the magnitude of likely impacts on cities from climate change affected coastal processes will be greater for city areas constructed prior to current policy settings that have recognised sea level rise as a factor in planning.

The scale and geographic spread of these risks highlights the need for effective national coordination in their management. Tailored knowledge on how risks will change is needed for planning and infrastructure design/retrofitting, new decision-tools are needed that robustly address long-term future risks and seek future cost minimisation, and innovation needed in approaches that build resilience in a changing climate, all of which would be supported by inter-jurisdictional and public-private collaborations.

Importantly, Australia's coastal cities need to proactively consider and address the ongoing nature of sea level rise and other increasing coastal hazards. Sea level rise will not cease when greenhouse gas emissions are stabilised. Sea levels will continue to rise for many hundreds of years after emissions and temperature stabilisation, with one study indicating that emissions since 1750 and pledged to 2030 have committed a global mean sea level rise of 1 metre (https://www.pnas.org/doi/10.1073/pnas.1907461116). There are direct intervening implications for the vulnerability of further developments, people and ecosystems in low-lying coastal areas from sea level rise, and for exposed national and world heritage assets.

The horizon of Australia's current projections is relatively short compared to the timeframes of change in the climate system. The UK has developed initial sea level rise projections to 2300; it is time that Australia undertook similar scenario development, and a key rationale for such science investment is ensuring the resilience and sustainability of our major coastal cities (and constraining to some extent the size of the inter-generational adaptation burden).

The ACS welcomes the consultation process on the draft National Urban Policy and supports the embedding of climate change and adaptation considerations in the goals and principles of the consultation draft. However, the authors of this submission consider that the objectives and proposed actions of the draft need to be further strengthened to better enable Australia to prepare for the combined national implications of climate change, population growth and ageing infrastructure in our major coastal cities. More specific comments on this are in the next section of this submission.

Specific comments

The following comments are not presented in any order of priority.

The up-front state of the cities information in the document, which is presented in a very engaging manner, could be built on to reveal how cities are also subject to multiple wider dynamic processes which are driving change, including climate change, as well as other changes such as from digital technology, shifts in the nature of economic activity, as well as demographic changes.

The section on the role of the Australian Government is important in such a policy; however, it could be strengthened to recognise the leading role of the Australian Government in science investment in the nation (such as for knowledge that requires fundamental biophysical science); in regulating the insurance sector; and in leadership in measures to shift the emphasis from disaster recovery to disaster preparedness; and for de-carbonisation of the economy. A very important capacity here is that while the consultation draft refers to engagement with other spheres of government (p. 14), in fact leadership and collaboration will be needed to address the very significant challenges that cities are beginning to face in a changing climate.

While the purpose of objective 4 concerning urban areas being safe is laudable, we would question the subordination of consideration of climate change impact and adaptation challenges such as from flooding to only a safety lens. There are multiple other significant dimensions of climate change impacts in the coastal zone that would position adaptation more robustly under a resilience and sustainability theme. These include the implications of projected sea level rise, higher king tides, efficiency of storm and sewer drainage systems in low-lying urban areas, and increasing heat and storm surges for city planning, design, urban ecosystems. These will all have liveability implications and insufficient action will increase the costs borne by future generations.

In managing these risks, and relevant to the possible actions on pages 29-30, the robust incorporation of climate change risk into land use planning, infrastructure investment and construction, and urban design, will require innovation and the development of new knowledge and financial/assessment tools, guidance and standards, as well as inter-jurisdictional and public-private partnerships. Important lessons from adaptation experience in the last 15 years in Australia include that there are many obstacles to adaptation action, that pathway planning is complex, and that many current decision-making systems fail to give value to the longer-term future relevant to a changed climate.

Also, with regard to objective 5 (our urban areas are sustainable) and objective 6 (promotion of health and wellbeing), a recognition of the need for climate-appropriate as well as high quality housing is needed to give priority to occupant health and comfort in a changing climate. A transition to de-carbonised urban systems that does not simultaneously build resilience to a future climate could actually result in stranded assets and increase urban risk. Importantly, occupant health and well-being outcomes are not achieved by a focus on reducing energy emissions alone. Increasing energy efficiency in housing (based on average annual datasets) will not support thermal comfort in heatwaves (which require heatwave-specific data), provide any protection against changing coastal dynamics in a warming world, or support housing affordability through affordable insurance. Reform of the National Construction Code is needed.

Finally, the consultation draft includes a number of important points in Appendix A: principles, that could benefit from being more strongly reflected in the proposed actions. These include the importance of linking the National Urban Policy with other Australian Government priorities,

including the National Adaptation Plan and the protection of threatened species. The Australian Government's 2021 State of the Environment Report finds that the highest density of threatened species is found along the eastern coast of Australia, particularly around the urban centres of Brisbane, Cairns, Melbourne and Sydney. In addition, the focus on innovation and the education sector is important in supporting research-practitioner partnerships for major challenges, and education and training in robust approaches to managing increasing coastal risks. The focus on improving the evidence base for interventions and collaboration is strongly supported, particularly in the coastal zone.

Thank you for the opportunity to contribute to the development of Australia's National Urban Policy.

Yours sincerely

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