Actuaries Institute.

16 March 2026

Submitted via NSW Planning Portal

Dear Sir/Madam

Response to Consultation on NSW's Climate Change and Natural Hazards SEPP

The Institute is the peak professional body for actuaries in Australia. Our members work in a wide range of fields including insurance, superannuation, investments and retirement incomes, banking, enterprise risk management, data science and AI, climate change impacts and government services. The Institute has a longstanding commitment to contribute to public policy discussion where our members have relevant expertise. The comments made in this submission are guided by the Institute's 'Public Policy Principles' that any policy measures or changes should promote public wellbeing, consider potential impacts on equity, be evidenced-based and support effectively regulated systems.

Our submission reflects the need for increased investment in climate adaptation and changes that increase the resilience of buildings so they can better withstand more extreme weather. It is aligned with the Institute's Climate Change Public Policy Statement. In summary, this supports an ambitious, orderly, just net zero transition, with co-ordinated, timely investment in adaptation, resilience and nature.

The Actuaries Institute welcomes the opportunity to comment on the proposed Climate Change and Natural Hazards State Environmental Planning Policy (SEPP). The Institute supports the SEPP's overarching objective to "future-proof" communities against climate-amplified natural hazard risks (including coastal hazards, flooding, bushfires and urban heat) and sees this reform as a critical complement to recent work to strengthen the National Construction Code (NCC). Consistent with our submission to the Commonwealth Treasury on the recent NCC consultation, we emphasise that climate risk must be treated as a core design parameter for systems that govern the location and form of development over multi-decade time horizons. We strongly recommend that the SEPP adopt an explicit principle of "no new residential or other highly vulnerable development in high-risk hazard zones" and translate that principle into clear, mandatory controls that prevent new or intensified residential development in areas determined as high or extreme hazard risk. This principle is not intended to preclude lower-consequence uses in high-risk hazard zones, where events do not result in major disruption or loss.

1. Consistency with the NCC submission

In our recent submission on the NCC, the Institute argued that technical frameworks must explicitly incorporate future climate risks over the full life of assets and be aligned with location-specific hazards such as flooding, coastal inundation and sea-level rise. We noted that building standards, on their own, cannot address risk where siting decisions place assets in locations that are fundamentally unsafe under plausible future climate scenarios. The SEPP is the natural planning counterpart to NCC reform: whereas the NCC can improve the resilience of individual buildings, only land-use planning can decide where those

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buildings are constructed. For high-risk floodplains and low-lying coastal zones, for example, national and international guidance on disaster risk reduction consistently identifies avoiding adding new homes and critical infrastructure in these locations as a primary resilience measure.[1]

We also highlighted in our NCC submission the growing interaction between physical climate risk, insurance affordability and availability, and public finance. Increasing losses from extreme events, coupled with concentration of exposure in hazard-prone locations, can lead to insurability issues and/or very high premiums, followed by pressure for government intervention, subsidies or buy-backs.

Those same dynamics apply directly to land-use: if planning frameworks allow continued development in known high-risk areas, governments will face rising fiscal liabilities in future as they are called upon to fund disaster recovery, mitigation and relocation. For this reason, we see strong, forward-looking land-use controls as essential to complement building standards and stabilise long-term risk.

2. National Climate Risk Assessment shows that we already know where the highest risks are

Australia's first National Climate Risk Assessment (NCRA) identifies floods and coastal hazards as among the country's most severe and rapidly escalating physical climate risks this century. The assessment finds that sea-level rise and more intense rainfall will sharply increase the number of communities in high and very high-risk locations, with projections that more than 1.5 million Australians could be living in such coastal zones by mid-century. National-scale flood risk analyses likewise indicate that many communities, including many in NSW, already have a very high proportion of homes in "high-risk" flood categories and are at growing risk of uninsurability as hazards intensify. The NCRA also highlighted the under all future global warming scenarios (+1.5ºC, +2.0ºC and +3.0ºC), susceptibility to fire across southern and eastern Australia is projected to increase due increases in heat and the frequency of heatwave conditions, along with more time spent in drought (*medium to high confidence*). These findings mean that, for a significant subset of locations, the existence of extreme and worsening hazard risk is no longer uncertain or speculative – it is well-documented and statistically robust.

We strongly support the intent of the SEPP to provide an all-hazards approach to planning to ensure communities and developments are resilient to both current and future risks. The long asset lives typical of residential and infrastructure development (often 50 years or more) mean that projects approved today will still be in place when many NCRA scenarios materialise. For areas already classified as high-risk on current mapping, credible climate scenarios imply a further deterioration in risk over that lifetime.

The implication is that new or intensified development in those locations is likely to be potentially uninsurable, and a source of future fiscal liability as governments are asked to fund mitigation, recovery and, in some cases, buy-backs or relocation. We recommend that the SEPP build in explicit "no new residential exposure" rules in the highest risk locations. Given the need for more homes across NSW, we acknowledge that to offset more restrictions on land use (such as no new exposure zones) it is likely that development and/or density will need to be increased in other, lower risk residential zones to meet the need for new homes.

[1] See , for example, New South Wales State Emergency Service (NSW SES) 2024, *Managing Flood Risk Through Planning Opportunities*, NSW Government, https://www.ses.nsw.gov.au/sites/default/files/2024-02/land_use_guidelines.pdf. and
UK Government, Department for Environment, Food and Rural Affairs 2021, *Review of policy for development in areas at flood risk,* https://assets.publishing.service.gov.uk/media/6101547de90e0703ad63350a/Review_of_Policy_for_Development_in_areas_at_flood_risk.pdf

3. Case studies: limiting exposure and risk-based planning

New Zealand's Hawke's Bay region provides a useful illustration of the long-term benefits of strong, mapped hazard controls that limit new exposure in high-risk areas. From the early 2000s, Hawke's Bay Regional Council used Tonkin & Taylor coastal hazard assessments to delineate coastal hazard zones (such as CHZ1–3) and embed them in regional planning instruments. These zones distinguish areas at imminent risk of erosion and extreme inundation from those exposed over longer timeframes, and the associated rules largely prevent intensification and tightly constrain new development in the most hazardous coastal strips.

Case studies from the Clifton to Tāngōio Coastal Hazards Strategy 2120 show that, while legacy settlements remain at risk and adaptation is challenging, earlier zoning decisions have significantly limited additional exposure in the highest-risk segments of coastline. As a result, current efforts can focus on managing and, where necessary, retreating existing development, rather than confronting a growing pipeline of new vulnerable housing in the most exposed locations. This is a successful example of risk being capped early through land-use controls, reducing the growth rate of expected future losses from natural hazards. The lesson for NSW is that defining high-risk bands and applying strong "no new exposure" rules can materially improve the long-term risk profile of communities.

A second relevant example is the Queensland Government's risk-based approach to integrating flood risk into land-use planning, led by the Queensland Reconstruction Authority, which provides a precedent for systematically steering new development away from high-risk locations while supporting resilient growth elsewhere. A similar risk-based framework in NSW, aligned with the intent of the Climate Change and Natural Hazards SEPP, would help ensure that planning decisions about where and how development occurs in high-risk areas are transparent, consistent and evidence-based.

4. Limitations of relying on complex, discretionary local assessments

The Institute supports the SEPP's use of climate scenarios and a tolerable-risk framework, and recognises that in moderate-risk areas a structured, evidence-based assessment process will be appropriate. However, the current draft relies heavily on councils and consent authorities interpreting complex flood studies, climate scenarios and risk guidelines on a case-by-case basis. The supporting material sets out multi-step processes that require considerable technical capacity and inevitably involve judgement and discretion.

This approach has three key limitations in the highest-risk bands:

- First, for extreme-risk floodways, flood storage areas, severely evacuation-constrained floodplains and severe coastal erosion/inundation zones, existing mapping and climate-adjusted hazard information already show that risk is intolerable and will worsen. Requiring repeated local reinterpretation of those studies adds little value and risks creating inconsistent outcomes.
- Second, discretionary assessments in high-risk areas expose local decision-makers to significant pressure to approve development, particularly when short-term housing or economic objectives are considered most important. This can lead to "optimistic" readings of hazard information and incremental intensification in locations where an actuarial analysis would recommend avoidance.
- Third, reliance on complex local assessments makes the system sensitive to uneven resourcing and technical capability across councils, which is likely to produce variable and, in some cases, sub-optimal risk decisions. It is unlikely that most NSW councils have the internal capacity to comprehensively assess how natural hazard risk changes under different climate scenarios,

including selecting appropriate scenarios, interpreting projections and integrating these into quantitative risk assessments, without additional technical support.

In our NCC submission, we argued for clear, evidence-based minimum standards that reduce ambiguity and provide strong default protections for the community. The same logic applies here: for the highest-risk bands, ambiguity should be minimised and the SEPP should provide clear rules rather than leaving these decisions largely to local discretion.

5. Recommended SEPP approach: "no new residential exposure in high-risk zones"

Drawing together the national evidence, international experience and actuarial perspective, the Institute recommends that the SEPP:

- Require that high-risk hazard bands be defined using existing and climate-adjusted mapping, informed by the SEPP's Climate Change Scenario Guidelines, and explicitly identified in local planning instruments.
- Within those high-risk bands, specify mandatory prohibitions on new residential development and significant intensification (including up-zoning, new subdivisions and substantial yield increases), rather than relying on discretionary interpretations of "tolerable risk" at the development assessment stage.
- Direct planning effort in these locations toward improving safety and enabling long-term transition and retreat for existing communities, consistent with the SEPP package's "build back better" principles, rather than adding new exposure on top of legacy risk.
- Ensure that planning provisions are explicitly aligned with national climate risk assessments and with ongoing NCC reforms, so that building standards and land-use rules work together as a coherent risk-management system: codes manage residual risk where development is appropriate, while planning prevents new exposure where risk is structurally intolerable.

6. Conclusion

The proposed SEPP is a vital opportunity to reduce long-term climate risk for NSW communities and public finances. National climate risk evidence shows that floods and coastal hazards are among Australia's most severe and rapidly escalating risks, and that the locations of many high-risk areas are already well known. International experience, such as Hawke's Bay's coastal hazard zoning, demonstrates that early, strong land-use controls that prevent new exposure in extreme-risk zones pay off over time by limiting growth in expected losses and enabling more manageable adaptation pathways. To fully realise the SEPP's stated intent of "future-proofing" communities, we recommend that NSW adopt clear, mandatory "no new residential exposure in high-risk hazard zones" provisions, ensuring that where risk is already known to be intolerable, the planning system is required to say no.

The Institute would be pleased to discuss this submission. If you would like to do so, please contact us on (02) 9239 6100 or public_policy@actuaries.asn.au.

Yours sincerely

(Signed) Elayne Grace
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