

Flooding and Land Use Planning



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Santina Camroux
Department of Planning and
Environment

The cost of natural disasters

Natural disasters currently cost the Australian economy **\$38 billion annually**

This will increase to **\$73 billion – \$94 billion annually** by 2060 (**\$1.2 trillion total**)

Cost in **NSW** will total **\$360 billion - \$391 billion** by 2060

Drivers of costs: population growth in exposed areas, climate change, and property value growth.

Three most expensive natural hazards are anticipated to be: flood, severe storm and hail, and tropical cyclone.

NSW Flood Inquiry

Announced In March 2022, Report issued July 2022

28 recommendations – supported by NSW Government

Recommendations – planning specific

17: Landholders can access information on previous disasters

18: Risk-based approach to calculating flood planning levels

19: Disaster adaptation plans for all towns

20: Floodplains as assets

21: Simplify the planning system disaster provisions

22: Relocating communities most at risk with good homes and amenities

24: Housing, especially social housing

25: Caravan parks and manufactured home estates

27: Environment

28: Essential services and floodplain infrastructure

Planning decisions and the new risk-based approach

- **Recommendation 18** – new risk based approach to flood planning
- **Revise flood planning levels *based on risk, not hazard*** in the state’s high risk catchments (eg Hawkesbury-Nepean, Georges, Wilsons and Tweed Rivers)
- Flood planning levels typically determine where the boundary between urban and non-urban as well as where flood related development controls apply
- The Inquiry recommends this work is completed by the NSW Reconstruction Authority within 3 years for high risk catchments

NSW Flood Prone Land Package

- **Commenced 14 July 2021 :**
- **a guideline for land use planning**
- **two LEP clauses**
- **a ministerial direction**
- **Removed limitation for placing development controls beyond the 1% AEP**
- **Provides the framework for councils to consider all flood impacts up to the probable maximum flood**
- **Allows for a risk-based approach to setting locally appropriate development controls through a mandatory flood LEP clause**
- **Provides an optional LEP clause for sensitive and hazardous developments and risk to life considerations**

Hawkesbury-Nepean floodplain

- Highest unmitigated flood risk in Australia due to the unique geography and large existing population
- Long history of widespread flooding:
 - largest flood since European settlement 1867 (1 in 500 chance per year)
 - largest flood in living memory 1961 (1 in 50 chance per year)
- Constrained road evacuation network
- Legacy of historic development at low levels in the floodplain



Nepean River, Penrith 1867 flood – waves 1 to 2 metres high



Floodwaters at Windsor 1961 – homes inundated

Flood Strategy (2017) –

No Simple Solution to managing the flood risk in the Valley



1. Coordination and integration	4. Improved flood risk information	7. Best practice emergency response and recovery
2. Warragamba Dam raising	5. Aware, prepared and responsive community	8. Adequate local roads for evacuation
3. Integrated land use and emergency planning	6. Improved weather and flood predictions	9. Monitoring, evaluation, reporting and improvement

HNV regional landuse planning framework



resilience of the region's settlement pattern to current and future risk

minimising flood risk arising from new development and/or re-development

avoiding and managing 'risk to life'