The State Disaster Mitigation Plan guides and unifies disaster risk reduction efforts in New South Wales

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New South Wales is advancing its natural hazard adaptation and mitigation maturity, guided by its nation-leading, multi-hazard strategy and action plan. The State Disaster Mitigation Plan¹ was released in February 2024 and is helping drive disaster risk reduction efforts by providing the foundation for better planning, prioritisation and delivery of mitigation and adaptation initiatives.

The catalyst for the State Disaster Mitigation Plan (SDMP) was the 2022 eastern Australia floods; one of the worst recorded flood disasters. The floods led to New South Wales Government establishing the 2022 Flood Inquiry² led by Professor Mary O'Kane AC and Michael Fuller APM. The inquiry recommended the establishment of a permanent statewide agency dedicated to disaster recovery, reconstruction and preparedness. The NSW Reconstruction Authority (RA) was legislated and established in response.



The NSW Reconstruction Authority Act 2022³ made the RA responsible for assessing risk, building community capacity and resilience and implementing strategies to improve the ability to withstand disasters through mitigation and adaptation activities. A key priority of the RA has been the development of the SDMP.

The need for the plan is clear, with the annual cost of disasters in New South Wales projected to reach \$9.1 billion annually by 2060, as events are expected to become more frequent and severe and will affect homes, businesses and government infrastructure. Historically, 97% of national natural disaster funding has been spent on response and recovery rather than reducing risk. That needs to change.

As part of this focus on adaptation and mitigation, the RA has an additional legislated function to develop a process for place-based disaster adaptation planning (DAP) to reduce risk at the regional and local levels.

Throughout the SDMP and DAP, the RA recognises the need for a high degree of collaboration between all levels of government, the community and industry to achieve success.

Alignment with other frameworks

The SDMP aligns with the *Sendai Framework for Disaster Risk Reduction 2015-2030*⁴ principles and the Australian Government's Natural Disaster Risk Reduction Framework⁵ and the Second National Action Plan that guides implementation.⁶ It also considers and builds on recommendations from the NSW 2019-20 Bushfire Inquiry.⁷

Developing the SDMP involved extensive engagement with all levels of government, communities, Aboriginal organisations, technical experts and industry.

Assessing risk

A multi-hazard risk assessment was commissioned for the SDMP at look at all local government areas in New South Wales across the built, social, economic and natural domains. The assessment considered bush fires, storms, floods, coastal hazards, tsunami, landslides and earthquakes.

The effects of climate change were assessed through 3 greenhouse gas emission scenarios as defined by the Intergovernmental Panel on Climate Change.⁸
The scenarios were for low GHG emissions (RCP 2.6), intermediate (RCP4.5) and high (RCP 8.5). The final SDMP presented results from the 2060 high emissions scenario. The risk assessment used average annual losses (AALs) - largely relied on by the insurance industry as a measure for damage to the built environment (using 2023 as the baseline). However, as the RA's inaugural document, the ability to measure social impacts and effects on the

natural environments and economies had not yet been established. The next iteration of the SDMP in 2026 would benefit from establishing these metrics. The SDMP includes the results of this risk assessment, including the local government areas at highest risk of single and multiple hazards. This is in line with the objective to be transparent with the risk information available.

Risk reduction toolkit

The SDMP provides a comprehensive risk reduction 'toolkit' (Figure 1). The toolkit includes options to reduce exposure and vulnerability to disaster risk. Disaster risk reduction requires an understanding of the range of disaster risk reduction tools to prevent new risk, reduce existing risk and manage residual (remaining) risk.

Generally, no simple nor single solution will significantly reduce risk. A suite of complementary measures is required to develop the most effective mix of risk reduction tools. Tools need to be considered in context of place. The relevance and effectiveness of any tool depends on factors including funding, the hazard it is targeting and its location context. The risk reduction toolkit highlights risk reduction options and the factors that enable application.

Actions for delivery

The SDMP outlines 37 short-to-medium-term actions to address policy and program gaps in New South Wales. These actions include:

• investigating mitigation infrastructure options like sand management to prepare for coastal erosion events

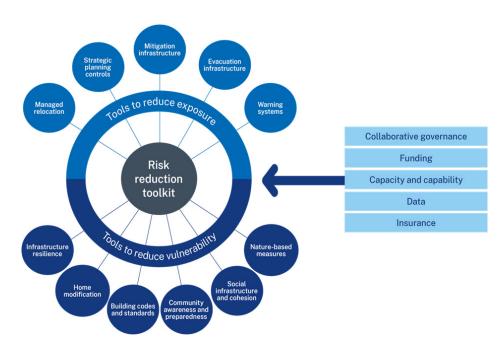


Figure 1: The risk reduction toolkit includes risk reduction options and the factors that enable application.

- working with the insurance industry to include risk reduction in the cost of insurance and to advocate for greater affordability
- developing a statewide plan for where it may make sense to move people away from areas of high risk before disaster occurs
- providing a knowledge hub of nature-based solutions such as urban greening, restoring ecosystems and or using indigenous land care management practices.

A governance framework was established to guide delivery of the 37 actions in the SDMP. This framework was based on Priority 4 of the Second National Action Plan (to be inclusive, enable partnership by sharing responsibility and to connect decision-making across recovery and resilience). This is achieved via a cross-government Executive Advisory Group, themed delivery working groups and specialist groups such as a Strategic Aboriginal Advisory Group. Embedded in the governance structure is a commitment to monitoring and evaluating progress of the SDMP. This will be done through a monitoring, evaluation, accountability and learning (MEAL) framework to ensure continuous improvement in the RA's work.

Shareable, reliable data

The SDMP provides wider benefits to the community and the RA is standardising, improving and making accessible quality, evidence-based data on natural hazards. The RA is developing agreed methods and assumptions to assess hazard risk including defining tolerable risk and establishing governance so that assumptions can be tested and agreed.

Lessons

The SDMP process demonstrated that disaster risk reduction requires incremental and collective change, built on respectful engagement. As the RA implements the SDMP actions and through its use of the DAP process, stakeholders will likely need extra support from a capacity and capability perspective. Strong leadership from the RA will be required to deliver meaningful change.

We know that responses to risk reduction relies on the best available data and must be monitored and evaluated to ensure we increase knowledge at state levels and also in the national and global arenas. There is no easy nor simple solution to reduce disaster risk. The New South Wales Government is helping communities be better prepared and better able to recover through reducing exposure and vulnerability. This requires a multi-hazard approach to enable the most effective risk reduction responses and working collaboratively with stakeholders and communities.

Endnotes

- 1. State Disaster Mitigation Plan, at www.nsw.gov.au/sites/default/files/noindex/2024-02/State_Disaster_Mitigation_Plan_Full_Version_0.pdf
- 2. New South Wales Government (2022) Flood Inquiry Volume Two: Full Report, at www.nsw.gov.au/sites/default/files/noindex/2022-08/VOLUME TWO Full%20report.pdf
- 3. *NSW Reconstruction Authority Act 2022*, at https://legislation.nsw.gov.au/view/html/inforce/current/act-2022-080#statusinformation
- 4. *Sendai Framework for Disaster Risk Reduction 2015-2030*, at www.undrr.org/publication/sendai-framework-disasterrisk-reduction-2015-2030
- 5. *Natural Disaster Risk Reduction Framework,* at www. homeaffairs.gov.au/emergency/files/national-disaster-risk-reduction-framework.pdf
- 6. The Second National Action Plan To implement the National Disaster Risk Reduction Framework, at www. nema.gov.au/sites/default/files/2024-08/28605%20 NEMA%20Second%20Action%20Plan_V10_A_1.pdf
- 7. NSW Bushfire Inquiry report, at www.rfs.nsw.gov.au/resources/publications/nsw-bushfire-inquiry-report
- 8. IPCC Emissions Scenarios, at www.ipcc.ch/report/emissions-scenarios