NSW Reconstruction Authority





State Disaster Mitigation Plan

Safer, more resilient and better prepared communities

Summary Version



Acknowledgement of Country

The NSW Government acknowledges that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and the oldest continuing culture in human history.

We pay respect to Elders past and present and commit to respecting the lands we walk on, and the communities we walk with.

We celebrate the deep and enduring connection of Aboriginal and Torres Strait Islander peoples to Country and acknowledge their continuing custodianship of the land, seas, and sky. We acknowledge the important contribution they make to our communities and economies.

We reflect on the continuing impact of government policies and practices and recognise our responsibility to work together with and for Aboriginal and Torres Strait Islander peoples, families, and communities, towards improved outcomes.

Artwork: Danielle Mate is a descendant of the Murrawari and Euahlayi people. Danielle's artwork looks at landscape from an aerial perspective, a mapping of the land as it was done traditionally. The darkest line is the deepest crevice or waterway, the surrounding colour represents the patches of flora, movement and layers of the landscape. This artwork was commissioned for this Plan.

Ministerial message

Our State represents the diversity of the Australian landscape. From World Heritage mountain ranges and rainforests through to rugged countryside, floodplains and the stunning coastline – NSW has an incredible variety of geographic features.

This means that NSW is a wonderful place to live, work and play, but it also means that we must live with a number of natural hazards, including bush fires, floods, storms, heatwaves, earthquakes and coastal erosion. These can cause significant damage and concern within the community.

Historically, NSW has always been prone to disasters. Aboriginal oral history and stories, as well as European records and literature, reflect our need to understand the challenges of our landscape. More recently, the catastrophic 2022 flood events and the extreme bush fire season of 2019-2020, are a painful reminder of just how serious disasters can be.

The primary responsibility of any Government is the safety and security of the community. As our climate changes, so to do the risks of disasters caused by natural hazards. As the Ministers jointly responsible for the NSW Reconstruction Authority, we acknowledge the responsibility of reducing the impact of natural hazards, whilst supporting communities through recovery.

The State Disaster Mitigation Plan (the Plan) is the Government's Statewide framework for disaster risk reduction. It provides evidence-based tools for

CEO's message

'Reconstruction' is in our name, but our role includes leading efforts across government that work towards the safety and wellbeing of communities by better preparing them before disasters.

It is incredibly important that we drive programs and policies that help communities reduce and adapt to the risks we face from natural hazards, and equally important to invest in programs that support communities to rebuild and recover.

Communities are at the heart of the NSW Reconstruction Authority's activities.

Drawing upon a community's existing strengths, knowledge and networks will inform and create practical plans for disaster management at the local level.

The NSW State Disaster Mitigation Plan is the first of its kind for NSW. It has been prepared to take into account lessons learned from recent disaster events, expert knowledge and experience in managing natural hazard risk, and offers a practical way forward. reducing risk where we can and adapting where we can't. By tackling these challenges head on, we can chart a course towards a more prepared NSW.

We know that natural hazard events will occur. Without action, disaster impacts will increase with climate change and growth. We must continue to invest in mitigation measures, community preparedness, well-informed recovery measures and intelligent reconstruction. In NSW, we have world-leading expertise, systems and processes for handling these disasters; but there is always room for improvement.

These past few years have been difficult for many communities affected by disasters. We have learned important lessons which are now shaping our approach to disaster mitigation, in order to make a difference to the people of NSW. The challenges of the future require us to do so.



The Hon. Paul Scully

Minister for Planning and Public Spaces



The Hon. Jihad Dib Minister for Emergency Services

The next step for the NSW Reconstruction Authority is to collaborate with key community stakeholders across the State to develop local Disaster Adaptation Plans. This will include strategies to support communities to reduce their risks where we can, and adapt where we can't.



Simon Draper Chief Executive Officer, NSW Reconstruction Authority

Creating safer, more resilient and better prepared communities

According to our Aboriginal and European history, NSW has always been prone to disasters caused by natural hazards. Nearly all communities across the State have experienced a disaster since 2019, costing the government more than \$6 billion. In 2022 NSW recorded 50 declared disasters with flood events alone affecting 98 local government areas (LGAs), damaging 20,000 homes, and causing over \$5.1 billion of insured damages. These events have taught us important lessons that are now shaping our approach.

A plan for NSW

The NSW Government is committed to making our communities safer, more resilient and better prepared to face the challenges of disasters caused by natural hazards.

The NSW Reconstruction Authority (RA) is responsible for establishing a State Disaster Mitigation Plan. This Plan is the State's first of its kind and includes actions to improve how we manage the risks of natural hazards, such as bush fires, floods, coastal erosion, and inundation. This is even more important as disasters will become more severe and frequent due to climate change and, without action, the impacts will become greater due to population growth.

This Plan examines NSW's risk to natural hazards and delivers a critical roadmap for reducing risk where we can and adapting where we can't. The Plan also supports local Disaster Adaptation Plans (DAPs) to be delivered by councils and other bodies. During the past decade, NSW has experienced multiple disasters caused by natural hazards – and many of us have been affected or know someone who has been.

In the past, over 97% of disaster-related investment has been spent on response and recovery rather than reducing the risk. Our aim is to rebalance our efforts and investment towards planning and preparation to reduce our risk.

We know that natural hazards and the disasters they cause will continue to happen. When they do, our communities must be well prepared.

Our vision is for NSW to be well prepared and successfully manage natural hazard risk, reducing the costs and impacts of disasters on communities. This vision and supporting principles will guide us in the decisions we make.

The role of the NSW Reconstruction Authority

The NSW Reconstruction Authority (RA) will be there for communities long before a disaster and will work with them on recovery and reconstruction long after a disaster has passed.

The RA was established in December 2022 as a key outcome of the 2022 NSW Independent Flood Inquiry. With a clear mandate to reduce the impact of disasters, we have a range of experts working to reduce our exposure to disasters and other emergencies. The RA is responsible for delivering the first State Disaster Mitigation Plan (SDMP), Disaster Adaptation Plans (DAPs), and DAP guidelines.

Understanding natural hazards

Natural hazards are processes that happen naturally and play an important role for regeneration and rejuvenation of the environment. They are driven by:

- weather: such as floods, bush fires, cyclones, thunderstorms, and heatwaves, or
- geology: such as earthquakes and tsunamis.

Natural hazards are described by their size, intensity, speed of onset, duration, and the area they cover.

The State Disaster Mitigation Plan includes information on 9 natural hazards:



Some other significant hazards have not been included in this Plan, such as slow-onset disasters like drought. Various drought preparedness measures are in progress across NSW government agencies.

Understanding disaster risk

inundation)

Natural events become a hazard when there is a negative impact, such as loss of life or economic or environmental damage. This becomes a disaster when it significantly affects people, homes, livelihoods, and things we value, and when the impact of hazards exceeds a community's ability to avoid, cope or recover from them.

Disaster risk, as shown in Figure 1, is a combination of the hazard and how exposed and vulnerable people and assets are to that hazard.



Figure 1. Components of natural hazard risk

While there is often little we can do about a hazard, the disaster risk can be reduced by limiting the exposure of people, homes, and infrastructure to the hazard/s, or increasing their resilience by making them less vulnerable to hazard impacts.

Assessing the risk

Looking at multiple hazards, we carried out a technical risk assessment to understand how their risk would impact our communities in 4 key areas: the built, social, economic, and natural environments (see Figure 2).



Figure 2. Risk impacts to communities

A standard metric, called annual average loss, was used to understand the expected cost of damage to property and infrastructure caused by each hazard, as well as multiple hazards over a period of time. This estimated the risk to the built environment.

This assessment showed that storms and floods present the highest current risk to the built environment, followed by coastal hazards. Historically, along with bush fires and heatwaves, these have also caused the greatest risk to life and injury. More work needs to be done to better measure social, natural, and broader economic impacts, such as mental health, wellbeing, and biodiversity.



To find out more about each hazard, and the risk across NSW, please take a look at the full <u>State Disaster Mitigation Plan</u>.

Risk in the future

Two of the key drivers increasing risk in the future are population growth and climate change. The NSW population is projected to grow to 9.9 million by 2041 with most growth expected in urban centres, particularly on the coast. These areas are already at high risk due to the concentration of homes and infrastructure, and climate change will increase this risk in the future.

Though the impacts of climate change on all natural hazards are not fully understood, it is expected to increase the frequency, duration, and severity of extreme weather events. A summary of the climate change impact on the severity and frequency of a range of natural hazards is included in Figure 3 below.

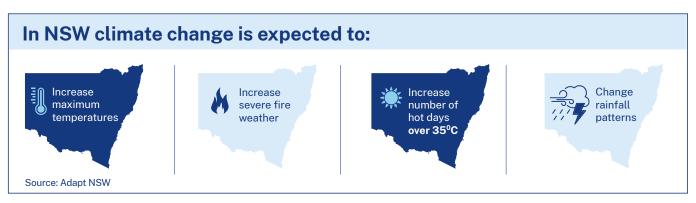


Figure 3. Impacts of climate change in NSW

Ways to reduce the risk

Disaster risk reduction requires an understanding of the range of appropriate disaster risk reduction tools to prevent new disaster risk, reduce existing disaster risk and manage residual (remaining) risk. A tool is a collective term to describe the range of different infrastructure and non-infrastructure measures to reduce risk.

No simple or single solution will significantly reduce the risk. A suite of complementary measures is required to develop the most effective mix of risk reduction tools. It is important that all relevant tools are considered with appropriate level of assessment for evidence informed decision-making. The relevance and effectiveness of any tool depends on factors including the funding available, which hazard it is most relevant to, and the local context. To successfully support and guide disaster risk reduction efforts at both a State and local level, there needs to be additional focus on 5 enablers including collaborative governance, funding, capacity and capability, data, and insurance.

Risk cannot be fully eliminated, so we need to consider options to reduce the exposure of people, homes, and infrastructure, as well as options to reduce vulnerability by increasing the resilience of our communities and assets. We will never be able to fully prevent natural hazards and the impacts they cause, and there is no easy or single solution. We can lessen or minimise their adverse impacts by using a range or 'toolkit' of solutions to reduce our exposure and our vulnerability.





Actions identified to reduce the risk

Informed by the risk assessment and extensive consultation, a roadmap of 37 short to medium term actions were identified. These actions address gaps in policy and programs required for disaster risk reduction. They also support the development of local Disaster Adaptation Plans. Some of these actions include:

- A further investigation of mitigation infrastructure options like sand management to prepare for coastal erosion of the future.
- Supporting Discrete Aboriginal Communities and other Aboriginal landowners in developing DAPs.
- Assessing our building codes to consider how to improve design and construction standards for more resilience to natural hazards.
- Working with the insurance industry to reflect risk reduction in the cost of insurance and advocate for greater affordability.
- Developing a Statewide plan for where it may make sense to move people away from areas of high risk, before a disaster occurs.
- Providing a central knowledge hub for using nature-based solutions such as urban greening, restoring ecosystems, or using Aboriginal land care management practices.
- Delivery of a multi-hazard, Statewide Get Ready program to raise awareness of disaster risk and embed community preparedness, including public campaigns and funding for council initiatives.

The list of actions can be viewed in the full version of the State Disaster Mitigation Plan.



Shellharbour. Source: Shellharbour City Council

Listening to our stakeholders

The State Disaster Mitigation Plan was developed in consultation and partnership with representatives from other state government agencies, local councils, Aboriginal specialists, and the community. Through workshops, webinars, and conversations, more than **290 participants** from **30 organisations**, and further **300 people** in local government discussed the challenges, opportunities, and actions for government to take. Their collective feedback has been incorporated into this Plan.

What we heard from the community



This Plan was informed by community knowledge and values. 35 panel members from

across NSW participated in 2 online workshops. Participation was voluntary and there was no prior knowledge required. Panel members included some who had lived through a disaster, had volunteered in emergency management, or were simply interested in being part of a disaster risk discussion. Key themes of the panel's feedback included:

- The importance of educating communities, building their skills, planning for vulnerable members, and supporting wellbeing.
- Concern about the rising costs of insurance.
- The need for better planning controls and government coordination.
- Recognition that jobs, agriculture, pets, essential services, and the natural environment are also impacted by disasters.
- A wish to see land returned for various types of public use when it is deemed too high risk for housing or development.
- The need for accurate, up-to-date natural hazard information that the community can access to make informed housing choices.
- Making sure there is strong local community input into planning for and managing risks.
- Maintaining an individual's right to make informed decisions.
- To learn from other Australian and global successes and failures when formulating plans.

"Thanks ... it was a great process ... like an old school community consultation," said Michael.

What we heard from Aboriginal participants

We engaged Aboriginal experts from across State Government

on how best to include their needs and values in this Plan. The key themes of feedback included:

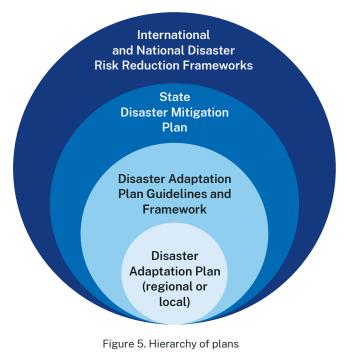
- Aboriginal people need a strong voice in inclusive and local decision-making, focused on continuous improvement for all areas of disaster management.
- Recognition and support for Aboriginal peoples' resilience is required.
- The importance of working across government to integrate relevant programs.
- Including cultural infrastructure and assets when planning.
- Tailoring solutions to recognise the distinct needs and inadequate funding of Aboriginal-owned land and communities.
- Taking a broader, long-term approach to Country and Aboriginal stewardship is required to help reduce disaster risk.
- Real life challenges have demonstrated the importance of Aboriginal leadership in making critical decisions.



Council staff working together

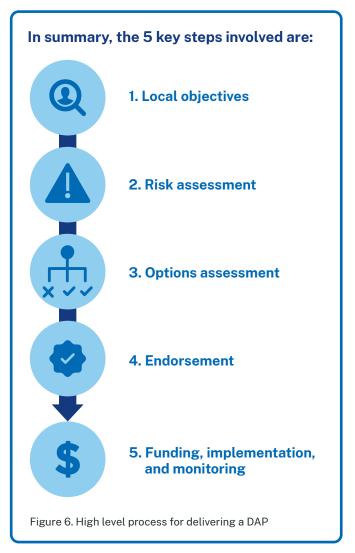
Supporting local plans

The needs of local communities vary and each place has different characteristics. Therefore, local and regional areas need their own Disaster Adaptation Plans (DAPs). A DAP may be developed by the RA, local councils, or other entities such as Discrete Aboriginal Communities.



The State Disaster Mitigation Plan sets the strategy and actions required at a state level, to support and enable place-based and community-centric DAPs. A key priority for the RA is developing DAP Guidelines and Framework by mid 2024 to help all local areas in NSW to work on practical plans to reduce natural hazard risk and guide a consistent approach. DAPs will draw as appropriate from the risk reduction toolkit outlined in this Plan and identify options that work to reduce risk at a local or regional level in partnership with the community. This Plan will support and guide the development of local, regional, or organisational DAPs with a focus on localised solutions for reducing disaster risk. The RA will coordinate and endorse these efforts for disaster adaptation planning.

The RA is preparing the first regional DAPs for the Hawkesbury-Nepean Valley and Northern Rivers. The long-term vision is that all areas in the State will benefit from having a DAP in place within the next 5 years.



Stepping up to the challenge

Establishing the first State Disaster Mitigation Plan is a positive milestone for NSW however our work continues. We will:



A way forward

There is no easy, simple, or single solution to reduce disaster risk. Disasters caused by natural hazards will still happen. However, the NSW Government is committed to being better prepared and working to reduce the exposure and vulnerability of our communities. This first State Disaster Mitigation Plan demonstrates that the NSW Government is stepping up to the challenges by providing a clear way forward to reduce our risk.

Where there are actions we can take Statewide, we will take them. Where local solutions are required, we will enable them. Where communities are required to take steps to enhance their resilience, we will ensure they are supported, resourced, and prepared.

With our Plan, we are in a stronger position to work together to create a safer, more resilient and better prepared NSW.

We invite you to take the time to explore the State Disaster Mitigation Plan for 2024 – 2026 and discover more. We welcome your feedback or questions. Please contact us via email sdmp@reconstruction.nsw.gov.au

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Read the State Disaster Mitigation Plan for 2024-2026



