

**Submission Number: NND.001.01110**

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What is your submission based on? I am making this submission based on my professional knowledge, qualifications or experience or on behalf of a group or organisation

What is your area of professional expertise?

If you are lodging your submission on behalf of a group or organisation, what is the name of the group or organisation? Australian Institute for Disaster Resilience (AIDR)

### Your Submission

In your experience, what areas of the bushfire emergency response worked well?

see attached AIDR submission

In your experience, what areas of the bushfire emergency response didn't work well?

see attached AIDR submission

In your experience, what needs to change to improve arrangements for preparation, mitigation, response and recovery coordination for national natural disaster arrangements in Australia?

see attached AIDR submission

Is there anything else you would like to tell the Royal Commission?

see attached AIDR submission

Do you agree to your submission being published? Yes I agree to my submission being published in my name

Supporting material provided:

AIDR Submission\_Royal Commission into Natural Disaster Arrangements\_v1.0.pdf

## Royal Commission into National Natural Disaster Arrangements

Submission by:

Australian Institute for Disaster Resilience

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## 1 Overview of AIDR and its role

The Australian Institute for Disaster Resilience (AIDR) develops, maintains and shares knowledge and learning to support a disaster resilient Australia<sup>1</sup>. Building on extensive knowledge and experience in Australia and internationally, AIDR works with government, communities, NGOs, not-for-profits, research organisations, education partners and the private sector to enhance disaster resilience through innovative thinking, professional development and knowledge sharing.

AIDR is a consortium managed by AFAC as a business unit and supported by its partners: the Australian Government Department of Home Affairs (Emergency Management Australia funds AIDR), the Australian Red Cross and the Bushfire and Natural Hazards Cooperative Research Centre.

AIDR delivers a range of products and services on behalf of the Commonwealth Government to support a disaster resilient Australia.

This includes:

**The Australian Disaster Resilience Handbook Collection** - AIDR maintains, reviews and updates the Australian Disaster Resilience Handbook Collection through the development of nationally agreed principles, to build national capability to support a disaster resilient Australia.

**Networking and National Capability Events Program** - AIDR leads a national capability and events program so that individuals and organisations can build knowledge, skills and connections that support disaster resilience through a regular program of curated professional development events and learning opportunities tailored for the disaster resilience sector.

**Education for Young People Program** - AIDR provides professional guidance and networking opportunities for stakeholders in disaster resilience education (education sector, emergency services, youth-focused organisations) framed by AIDR's strategic vision for disaster resilience education. AIDR supports a national education network (DRANZSEN) through regular communications and case studies of youth participation in disaster risk reduction<sup>2</sup>.

**Volunteer Leadership Program** - AIDR develops local leadership capability for disaster resilience and emergency management volunteers across traditional emergency management agencies and with emerging disaster resilience volunteers from community organisations, not-for-profits, disaster relief organisations and local government

**Knowledge Management** – AIDR provides thought leadership for disaster resilience through the curation of contemporary knowledge products including the Australian Journal of Emergency Management, Australian Disaster Resilience Knowledge Hub, Knowledge Collections and Practice papers.

**National Emergency Risk Assessment Guidelines Online Training** – AIDR provides online training in disaster risk assessment for policy makers and practitioners.

**Australian Emergency Management Library** – AIDR provides emergency management library resources to meet the needs of individuals and groups for education, information and professional development.

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<sup>1</sup> [www.aidr.org.au](http://www.aidr.org.au)

<sup>2</sup> [www.schools.aidr.org.au](http://www.schools.aidr.org.au)

**Resilient Australia Awards** – AIDR delivers a national awards program that celebrates and shares initiatives that build and foster whole of community resilience to disasters and emergencies around Australia.

**Major Incidents Report** – AIDR manages the development and production of an annual report that presents an overview of major incidents that have involved the fire and emergency services sector in Australia. The report includes a lessons management component to identify and analyse recurring and emerging insights across hazards, sectors and jurisdictions.

## 2 Response to the Terms of Reference

*(b) Australia's arrangements for improving resilience and adapting to changing climatic conditions, what actions should be taken to mitigate the impacts of natural disasters, and whether accountability for natural disaster risk management, preparedness, resilience and recovery should be enhanced, including through a nationally consistent accountability and reporting framework and national standards*

### Improving resilience

Australia's arrangements for improving disaster resilience are guided by a range of international and national frameworks, including the UN Sendai Framework for Disaster Risk Reduction 2015-2030 and the National Disaster Risk Reduction Framework (NDRRF) endorsed by COAG in March 2020.

In 2011, the Council of Australian Governments' (COAG) *National Strategy for Disaster Resilience* (NSDR) established a national resilience-based approach to disaster management. Australia's resilience to disaster impacts is critical to our continued wellbeing and prosperity. However, our capacity to be resilient to disasters diminishes as disaster risk, and potential impacts, grow.

The NSDR outlines that governments at all levels have a significant role in strengthening the nation's resilience to disasters and identifies key strategies:

- developing and implementing effective, risk-based land management and planning arrangements and other mitigation activities
- having effective arrangements in place to inform people about how to assess their risks and reduce their exposure and vulnerability to hazards
- supporting individuals and communities to prepare for extreme events, and
- ensuring the most effective, well-coordinated response from our emergency services and volunteers when disaster hits.

The *National Disaster Risk Reduction Framework* is a multi-sector collaboration that was led by the National Resilience Taskforce within the Australian Government Department of Home Affairs. The framework was co-designed with representatives from AIDR together with all levels of government, business and the community sector.

Disaster risk reduction aims to prevent new and reduce existing disaster risk, strengthening the resilience of people, systems and approaches.

A key concept underlying disaster risk reduction is the premise that disasters are not 'natural'. Hazards such as flood and fire only lead to disaster if they intersect with an exposed and vulnerable society and exceed people's capacity to cope.

AIDR sees investing in reducing disaster risk as a national priority to secure a safe, healthy and prosperous future.

In March 2020, COAG acknowledged that building resilience to natural disasters requires coordinated action from all governments, together with the private sector and communities. They formalised this agreement by endorsing the *National Disaster Risk Reduction Framework* and by asking emergency management Ministers to develop a National Action Plan to implement the framework in consultation with other COAG councils and forums. A new \$261M Commonwealth-

State partnership agreement will fund implementation of risk reduction initiatives in line with the framework.

AIDR is actively working to implement the *National Disaster Risk Reduction Framework* and accelerate disaster risk reduction to support a resilient Australia.

AIDR has worked closely with Emergency Management Australia (EMA) within the Australian Government Department of Home Affairs to support the rollout and socialisation of the National Disaster Risk Reduction Framework.

The National Disaster Risk Reduction Framework, which sets a common agenda for collective action focusing on systemic disaster risk, provides an opportunity to address climate and disaster risk at scale and at its root causes. It encompasses a whole of society approach in recognition that across a number of sectors, the decisions that are made – for example where and how we build our homes – have the power to either create, maintain, or reduce risk.

AIDR partnered with EMA and CSIRO to lead the Understanding Disaster Risk Forums which were held in every state and territory in October 2019. More than 700 people registered to attend, from not-for-profit; local, state and commonwealth government; universities, research and academia; emergency management and services; critical infrastructure; peak bodies; health; finance and insurance; private sector and consulting.

The Understanding Disaster Risk forums highlighted contemporary thinking and guidance on how we understand our relationship with hazards, vulnerability, risk and its reduction. The forums highlighted systemic risk and how climate and disaster risk intersect.

Decision makers from across sectors benefited from a national perspective on climate and disaster risk, stories of lived experience from across Australia, examples of novel projects, and state-specific discussion and insights on key initiatives, challenges and opportunities.

Proceedings from these events, including a professional video series, are available online as a resource going forward to assist<sup>3</sup>.

The **Disaster Risk Reduction Collection** on the AIDR Knowledge Hub brings together key guidance material developed by Australia's National Resilience Taskforce to support disaster risk reduction policy and practice in Australia. This includes key materials such as the National Disaster Risk Reduction Framework; Profiling Australia's Vulnerability: The interconnected causes and cascading effects of systemic disaster risk; and Guidance for Strategic Decisions on Climate and Disaster Risk<sup>4</sup>.

[Guidance for Strategic Decisions on Climate and Disaster Risk](#) are important resources for decision makers that cover governance, vulnerability, scenarios and prioritisation.

### **Improving resilience through recovery**

As a disaster resilience knowledge centre, AIDR connects people to knowledge and good practice to support effective recovery. AIDR believes there is a key opportunity to build resilience through the recovery effort across the social, built, economic and natural environments.

<sup>3</sup> <https://knowledge.aidr.org.au/resources/understanding-disaster-risk-forum-proceedings/>

<sup>4</sup> <https://knowledge.aidr.org.au/collections/disaster-risk-reduction/>

AIDR's focus on recovery has included:

- **Recovery Collection** on the Australian Disaster Resilience Knowledge Hub: This brings together resources, information and publications focused on recovery in Australia. It showcases the Community Recovery Handbook published by AIDR in 2018, which is a key resource in this area. It is also home to the National Principles for Disaster Recovery, the National Monitoring and Evaluation Framework and Database for Disaster Recovery Programs, recommended practitioner resources, curated research, and a series of 'knowledge-into-action' briefs on recovery topics.
- **Recovery Matters webinars:** A series that explores key issues that are important in disaster recovery. It assists more recently appointed recovery workers to learn from experts as they get up-to-speed with good practice in recovery, and more experienced recovery workers to refresh and reflect on their practice.
- **National Recovery Forum:** AIDR is planning to deliver a national recovery forum to support professional developing, sharing of experiences and connections in the recovery community later in 2020. The aim would be to stage this as an annual event, in recognition of the need to bring the recovery community together.

### Research to improve resilience

The emergency management and disaster resilience sectors require relevant, useful and readily applied research to contribute to supporting a more disaster resilient Australia. AIDR has a strong focus on knowledge management and is well placed to manage a research capability on behalf of the sector.

Such an arrangement was presented to EMA in 2019 and had their support. AIDR is a highly effective knowledge broker, maintaining a 'Knowledge Hub' and generating national doctrine on emergency management and resilience through The Australian Disaster Resilience Handbook collection. This arrangement would ensure research is user driven, meeting the needs of the sector, and is relevant, useful and readily utilised.

### Enhancing young people's engagement in disaster resilience

The Education for Young People Program, delivered by AIDR, recognises the essential role of young people in the development of an effective and sustainable model for community resilience to disasters. To enable young people to understand and reduce the risk of disasters, they need to be provided with opportunities to learn about hazards and risk, and to participate in the development and implementation of solutions to protect communities from harm.

AIDR draws on the expert knowledge of an extensive network of educators, researchers, hazard and emergency experts, local government representatives and others, to promote and support disaster resilience education in schools and other settings. Since the beginning of 2018 the Disaster Resilient Australia New Zealand Schools Education Network (DRANZSEN) has doubled in size and now connects with more than 600 members across all states and territories. Network events in 2019 catered for more than 200 participants from our key stakeholder groups. The Education for Young People program newsletter, profiling disaster resilience education initiatives and resources, reaches an audience of almost 800 readers quarterly.

The Disaster Resilience Education Strategy Group (DRESG), facilitated by AIDR, supports and advises the Education for Young People program. This group is made up of 13 experts from the education, research and emergency management sectors with significant expertise in disaster risk reduction

and resilience education. This Group sets the Strategy and Vision for the Education for Young People program.

AIDR proposes that opportunities for young people to engage in disaster risk reduction should be enhanced through the education system. This proposal is underpinned by a recognition of National Principles for Child Safe Organisations, for example that:

- children and young people are informed about their rights, participate in decisions affecting them and are taken seriously
- families and communities are informed and involved in promoting child safety and wellbeing
- staff and volunteers are equipped with the knowledge, skills and awareness to keep children and young people safe through ongoing education and training
- physical and online environments promote safety and wellbeing while minimising opportunity for children and young people to be harmed.

The reality of increasing disaster risk in Australia is not yet acknowledged in formal education. The lack of a shared vision and overarching strategy for disaster resilience education contributes to the vulnerability of children and young people and represents a significant gap in our national efforts to 'enhance Australia's capacity to withstand and recover from emergencies and disasters' (Commonwealth of Australia NSDR, 2011). To develop skilled and resilient communities, young learners need to understand the nature of risk in their local environment and their role in reducing exposure and vulnerability to harm.

AIDR believes that all young Australians should be empowered to participate in skilled and resilient communities, working to reduce the risk of disaster.

In order to participate meaningfully in disaster risk reduction, young people need to be able to:

- access reliable information on the science and geographical distribution of natural hazards
- investigate both historic and predicted impacts of natural hazards where they live or visit
- recognise the underlying causes of increasing disaster risk and factors which increase the vulnerability of a community
- work with experts to develop solutions to hazard-related challenges
- develop skills and strategies for staying safe, seeking help and helping others
- practise protective strategies for mental health and personal resilience
- share their learning, opinions and ideas with decision-makers
- participate in actions to reduce risk before, during and after a disaster or other traumatic incident.

Educators and school leaders need support to ensure that schools:

- are safe and secure environments with effective emergency management arrangements
- are provided with professional development for teachers, and expert support to enable children and young people to develop and apply skills in disaster risk reduction
- are recognised in their special role as centres of learning, culture, wellbeing and connection for young people, families, educators and staff in diverse communities.

Recommendation 6 of the 2009 Victorian Bushfires Royal Commission stated that the history of bushfire should be incorporated into the Australian Curriculum through relevant learning areas



including geography and science. It is important to understand the structure of the Australian Curriculum when considering the effectiveness of this recommendation.

In 2020, 'bushfires' appears in only two Australian curriculum content descriptions and in both instances is presented as a suggested rather than prescribed focus alongside other hazards:

1. Year 5 Humanities and Social Science: The impact of bushfires or floods on environments and communities, and how people can respond (ACHASSK114).
2. Senior Secondary Earth and Environmental Science: Human activities, including land clearing, can contribute to the frequency, magnitude and intensity of some natural hazards (for example, drought, flood, bushfire, landslides) at local and regional scales (ACSES102).

Any further references to bushfires in the Australian curriculum appear in the optional 'content elaborations' which provide ideas rather than direction for how content should be taught. It should be noted that Earth and Environmental Science is the least subscribed science course in the final year of secondary schooling. In 2019, for example, less than 3% of NSW secondary school students were enrolled in this course. Furthermore, the implementation of the Australian Curriculum is the responsibility of state and territory education authorities and subject to further variation. New South Wales is the only state in Australia, where the education standards authority (NESA) identifies bushfire as the specific hazard to be taught in Year 5.

AIDR proposes the following actions to mitigate the impacts of natural disasters through a special focus on children and young people:

- specific expectations for disaster resilience education, to be incorporated in national strategy frameworks for disaster risk reduction
- the integration of disaster resilience education through detailed content descriptions in the Australian curriculum
- the development of accredited professional development for educators in disaster resilience education
- the endorsement of a curriculum-linked learning roadmap for disaster resilience education
- the promotion and resourcing of learning partnerships for disaster resilience education, bringing together the education sector, emergency services and related organisations.

### **Adapting to changing climatic conditions**

Climate change is highlighted within the NDRR Framework as a fundamental driver for action to build disaster resilience in Australia, due to the role climate change plays in amplifying the frequency and intensity of natural hazards, like bushfires, in Australia. The *State of the Climate Report* (CSIRO and Bureau of Meteorology 2018) describes the effect of Australia's changing climate, including warming temperatures, rising sea level, more severe fire weather, and increased rainfall in the north and decreased in the south. It is predicted that these changes will continue, while new natural hazard threats will emerge. There is growing potential for cumulative or concurrent, large scale natural hazards to occur.

Climate change is a cross cutting theme in The Australian Disaster Resilience Handbook Collection, which provides an authoritative, trusted and freely available source of knowledge about disaster resilience principles and practice across a range of themes, including land use planning. AIDR has produced a *Land Use Planning for Disaster Resilient Communities* (In Press) Handbook, which

highlights the role land use planning plays in climate change mitigation and adaptation as an underlying risk factor.

AIDR collaborates with the Australasian Fire and Emergency Service Authorities Council (AFAC) to convene the AFAC Climate Change Group, which is comprised of key individuals from jurisdictional emergency management agencies, BOM and leading climate change researchers. The group are producing a body of work to enable the emergency management sector to strategically support effective climate change risk mitigation, planning and adaptation outcomes for their stakeholders and the community.

A discussion paper produced by the Group (AFAC 2018a) unambiguously highlights the impacts of human induced climate change on the extent and intensity of bushfires and includes advice to the emergency management sector on how to respond to the threats of climate change. This response is not just to the physical risks posed by climate change, but also to prepare for the transitional risks and legal risks.

In the AFAC Position *Fire and Emergency Services and Climate Change* (2018b) the Climate Change Group has identified the following climate risks related to fire and emergency services:

- changes in the frequency, severity and complexity of extreme weather and cascading events
- changes in the seasonality of weather and climate, and the emergence of new and different extremes
- increasing exposure and vulnerabilities of some communities to hazards and amplifications of other stressors and shocks (which can become disasters)
- increasing economic costs of hazard events and disasters, impacts on infrastructure, and further stretching the resourcing of emergency services. Without appropriate disaster risk reduction measures, climate change could be viewed as having unconstrained future costs
- increasing pressure on resourcing, responders and capabilities due to the increased frequency and intensity of incidents
- increasing health and safety risks for staff and volunteers, including dealing with new technologies, as well as impacts on responders such as fatigue and mental health sustained consequences of ecosystem changes, including impacts on effectiveness of risk mitigation activities and changed hazard levels
- supply chain vulnerabilities for the sector
- private and public sectors are increasingly looking to emergency services for knowledge and advice regarding climate change risk
- increasing liability exposures for emergency services and impacts of insurance sector changes
- failure of building codes and land use planning to adequately adapt
- and an ineffective transition to low emissions technologies.

*(f) ways in which Australia could achieve greater national coordination and accountability — through common national standards, rule-making, reporting and data-sharing — with respect to key preparedness and resilience responsibilities, including for the following:*

- i. land management, including hazard reduction measures;*
- ii. wildlife management and species conservation, including biodiversity, habitat protection and restoration;*
- iii. land-use planning, zoning and development approval (including building standards), urban safety, construction of public infrastructure, and the incorporation of natural disaster considerations*

### **Standards, rulemaking, reporting and data-sharing**

AIDR supports efforts towards improving governance of disaster risk and accountability measures, strengthened by national standards and placing community and environmental resilience, safety and sustainability at the centre of decision-making.

The [National Disaster Risk Reduction Framework](#)<sup>5</sup> has very recently identified priority areas and strategies to assist Australia to achieve greater national coordination and accountability with respect to preparedness, resilience and risk reduction responsibilities. These are supported by five-year outcome statements, and AIDR supports investing in implementation of this very well researched work in order to achieve a cohesive and impactful national approach to managing current and future climate and disaster risk and supporting resilience. Standards, rulemaking, reporting and data sharing could be aligned to various strategies identified below:

#### **Priority 1: Understand disaster risk**

Strategies:

- a. improve public awareness of, and engagement on, disaster risks and impacts
- b. identify and address data, information and resource gaps
- c. address technical barriers to data and information sharing and availability
- d. integrate plausible future scenarios into planning
- e. develop cohesive disaster risk information access and communication capabilities to deliver actionable disaster risk data and information
- f. support long-term and solution-driven research, innovation and knowledge practices, and disaster risk education
- g. improve disclosure of disaster risk to all stakeholders.

#### **Priority 2: Accountable decisions**

Strategies:

- a. consider potential avoided loss (tangible and intangible) and broader benefits in all relevant decisions
- b. identify highest priority disaster risks and mitigation opportunities
- c. build the capability and capacity of decision-makers to actively address disaster risk in policy, program and investment decisions
- d. establish proactive incentives, and address disincentives and barriers, to reducing disaster risk

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<sup>5</sup> <https://knowledge.aidr.org.au/resources/national-disaster-risk-reduction-framework/>

- e. maintain planning and development practices that adapt to rapid social, economic, environmental and cultural change
- f. promote compliance with, and embed resilience requirements into, relevant standards, codes and specifications.

### **Priority 3: Enhanced investment**

Strategies:

- pursue collaborative commercial financing options for disaster risk reduction initiatives
- develop disaster risk reduction investment tools to provide practical guidance on investment mechanisms
- leverage existing and future government programs to fund priority risk reduction measures
- identify additional current and future potential funding streams
- improve the accessibility, variety and uptake of insurance
- empower communities, individuals and small businesses to make informed and sustainable investments.

### **Priority 4: Governance, ownership and responsibility**

Strategies:

- establish a national mechanism to oversee and guide disaster risk reduction efforts and cross-sector dependencies
- establish a national implementation plan for this framework
- support and enable locally led and owned place-based disaster risk reduction efforts
- incentivise improved transparency of disaster risk ownership through personal and business transactions
- consistently report on disaster risk reduction efforts and outcomes
- create clear governance pathways for pursuing disaster risk reduction projects.

### **Setting common national standards**

The Australian Disaster Resilience Handbook Collection articulates nationally agreed principles and practices for disaster resilience.

Handbooks fulfil a critical role in national resilience under the policy framework established by the *National Strategy for Disaster Resilience* (COAG 2011).

The Handbook Collection:

- provides an authoritative, trusted and freely available source of knowledge about disaster resilience principles in Australia
- aligns national disaster resilience strategy and policy with practice, by guiding and supporting jurisdictions, agencies and other organisations and individuals in their implementation and adoption
- highlights and promotes the adoption of good practice in building disaster resilience in Australia
- builds interoperability between jurisdictions, agencies, the private sector, local businesses and community groups by promoting use of a common language and coordinated, nationally agreed principles.

The Handbook Collection is developed and reviewed by national consultative committees comprised of subject matter experts from a range of state and territory agencies, governments, organisations and individuals involved in disaster resilience. The collection is sponsored by the Australian Government Department of Home Affairs and endorsed by the Director-General EMA. As such, the Handbook program provides a national focal point and platform for coordinating the development, review and endorsement of national principles that set the standard for local implementation of disaster resilience responsibilities across Australian jurisdictions.

Since AIDR was established in 2015, 17 handbooks have been developed across a range of disaster resilience themes. Handbooks are freely available online on the AIDR Knowledge Hub<sup>6</sup>.

Handbook titles include:

- *Australian Emergency Management Arrangements*
- *Communities Responding to Disasters: Planning for Spontaneous Volunteers*
- *Community Engagement for Disaster Resilience*
- *Community Recovery*
- *Emergency Planning*
- *Evacuation Planning*
- *Flood Planning for Disaster Resilience*
- *Health and Disaster Management*
- *Incident Management*
- *Land Use Planning for Disaster Resilient Communities*
- *Lessons Management*
- *Managing Exercises*
- *Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia*
- *National Emergency Risk Assessment Guidelines*
- *Public Information and Warnings*
- *Safe and Healthy Crowded Places*
- *Tsunami Emergency Planning in Australia*

The high-level principles and guidance presented in the Handbook collection set the national standard for disaster resilience practice.

A selection of handbooks related to preparedness and resilience responsibilities are outlined below:

*Australian Emergency Management Arrangements (AIDR 2019):*

*Australian Emergency Management Arrangements Handbook* is an important development of national significance for the EM sector. Through an engaged multi-jurisdictional process, the handbook has identified 11 core principles that underpin and guide emergency management activities in Australia.

The handbook describes the emergency management roles and responsibilities of all levels of government, non-government organisations (NGOs), businesses, communities and individuals. Arrangements and responsibilities for the comprehensive approach to emergency management - prevention, preparedness, response and recovery (PPRR) are discussed.

These arrangements support emergency management in Australia through the concepts of an 'all hazards' approach and 'shared responsibility'.

Australia's emergency management arrangements bring together the efforts of all governments, and private and volunteer agencies to deliver coordinated emergency management across all hazards.

<sup>6</sup> <https://knowledge.aidr.org.au/collections/handbook-collection/>

These arrangements are also based on a high level of trust and cooperation between the community and emergency managers, as the result of common experiences dealing with disasters.

Australia's approach to the management of emergencies and disasters is guided by a number of high-level principles that are intended to provide guidance, flexibility and a broad understanding of the approaches to emergency management. An explanation of these emergency management principles follows (AIDR 2019):

### Principles of Emergency Management

Principle	Explanation
<i>Primacy of life</i>	The protection and preservation of human life (including both communities and emergency services personnel) will be paramount over all other objectives and considerations.
<i>Comprehensive</i>	The development of emergency and disaster arrangements to embrace the phases of prevention, preparedness, response, and recovery (PPRR) across all hazards. These phases of emergency management are not necessarily sequential.
<i>Collaborative</i>	Relationships between emergency management stakeholders and communities are based on integrity, trust and mutual respect, building a team atmosphere and consensus. Planning and systems of work reflect common goals and all stakeholders work with a unified effort.
<i>Coordinated</i>	The bringing together of organisations and other resources to support emergency management response, relief and recovery. It involves the systematic acquisition and application of resources (organisational, human and equipment) in an emergency situation. Activities of all stakeholders are synchronised and integrated. Information is shared to achieve a common purpose and impacts and needs are continuously assessed and responded to accordingly.
<i>Flexible</i>	Emergency situations are constantly changing. Emergency management decisions may require initiative, creativity and innovation to adapt to new and rapidly emerging challenges. Emergency plans need to be agile to change and adapt to these new circumstances.
<i>Risk based</i>	Emergency managers use sound risk management principles and processes in prioritising, allocating and monitoring resources to manage the risks from hazards. Risk based planning will anticipate the effect of efforts, the changing hazard landscape and the changing consequences of the emergency.
<i>Shared responsibility</i>	Everyone understands their own responsibility in an emergency, and the responsibility of others. The community and individuals understand the risk. This encourages all stakeholders to prevent, prepare for, and to plan for how they will safely respond to and recover from an emergency situation.

<i>Resilience</i>	The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management (UNISDR).
<i>Communication</i>	Information is crucial to decision making and to the preservation of life. Emergency managers need to support common information systems and are responsible for providing and sharing clear, targeted and tailored information to those who need it, and to those at risk, to enable better decision making by all stakeholders.
<i>Integrated</i>	Emergency Management efforts must be integrated across sectors, not progressed in silos, ensuring the engagement of the whole of governments, all relevant organisations and agencies, the private sector and the community.
<i>Continual improvement</i>	All sectors continuously learn and innovate to improve practices and share lessons, data and knowledge so that future emergency management is better, and the overall cost of impact of emergencies and disasters is reduced. Continuous monitoring, review and evaluation should examine the processes, timelines and outcomes of plans. Review informs communities and displays transparency and accountability. Review also enables facilitation of the adaptive change process with communities.

### Public Information and Warnings (AIDR 2018)

Across Australia, Commonwealth, state and territory governments and their emergency service organisations and statutory bodies hold responsibilities for issuing warnings in a potential or actual emergency. Community members and organisations also play a shared role in communicating warnings.

The effective communication of public information and warnings is a critical element of emergency management, with the power to save lives. This handbook provides insight and guidance to people who have responsibility for communication with the public in the event of an emergency. The handbook presents nationally agreed principles for warning policy and practice and explores the essential elements and discipline of effective public information and warning delivery.

This handbook is designed to be of value across a wide range of hazards. Whether it is a natural hazard or weather event, a public health emergency, or a hostile attack in an urban setting, the principles, importance and discipline of effective communication are broadly applicable. The handbook aligns national disaster resilience strategy and policy with practice, notably the *National Strategy for Disaster Resilience* (COAG 2011) and the *Strategic Directions for Fire and Emergency Services in Australia and New Zealand 2017-2021* (AFAC 2016), by guiding and supporting jurisdictions, agencies and other organisations and individuals in their implementation and adoption.

It also responds to Recommendation Two of the 2014 National Review of Warnings and Information (ANZEMC 2015), to advance a national approach through improved knowledge management.

The scope of the handbook spans public information and warnings and has a specific and intentional focus on the delivery of warnings. Future revisions of the handbook will expand discussion to include relevant good practice on the provision of public information.

Ten principles guide the development and use of warnings in Australia.<sup>7</sup> They outline why warnings are important and how warnings are provided most effectively (see **Table 1**).

The design and use of warnings should be guided by a total warning system, underpinned by clear governance arrangements, operate within an integrated incident management system, and be supported by delivery systems.

**Table 1: Australia's warning principles**

<b>1</b>	<p><b>Life-saving</b></p> <p>Warnings can save lives and protect people from harm. They prompt and encourage protective action to minimise the social and economic impacts of an emergency. Warnings are an essential element of effective emergency management.</p>
<b>2</b>	<p><b>Empowering</b></p> <p>The provision of warnings enacts a national commitment to building shared responsibility for disaster resilience, by empowering people to make decisions about their own safety.</p>
<b>3</b>	<p><b>Trusted, authoritative and verifiable</b></p> <p>For greatest effect, warnings must come from a trusted source and be verifiable through multiple channels. Warnings should therefore be easily and widely shared to recognise the diversity of potential trusted sources. The official authority issuing a warning should always be clearly stated.</p>
<b>4</b>	<p><b>Scaled based on risk</b></p> <p>Scaled warning frameworks should guide the delivery of all warnings and support the consistent risk assessment of a hazard, its impact and its consequence.</p>
<b>5</b>	<p><b>Timely, targeted and tailored</b></p> <p>Warnings should be timely, targeted to communities at risk and tailored to provide detail and relevance. Specific consideration should be given to harder to reach and vulnerable members of the community.</p>

<sup>7</sup> Nationally agreed principles for the provision of warnings were first established in 2008 and available in the Australia's Emergency Warning Arrangements (Attorney-General's Department 2013). These revised principles were adopted by AFAC's Commissioners and Chief Officers Strategic Committee (CCOSC) in May 2018. The original principles can be accessed on the Australian Disaster Resilience Knowledge Hub archive <https://knowledge.aidr.org.au/resources/archived-documents/>.



6	<p><b>Conveying impact</b></p> <p>Warnings should describe the expected impacts and consequences of an approaching or current hazard, to assist people to understand and be motivated to take protective action.</p>
7	<p><b>Including a call-to-action</b></p> <p>Warnings should include practical calls-to-action using language tailored to the level of risk, ranging from advice and persuasive recommendations to authoritative direction.</p>
8	<p><b>Clearly communicated</b></p> <p>Warnings should be easy to understand and use a consistent structure to provide information. Both written and visual information should be considered to assist with clearly conveying risk and encouraging protective action.</p>
9	<p><b>Readily accessible</b></p> <p>Warnings should be disseminated via multiple channels, tailored to suit each channel, and consider accessibility for diverse audiences. Ease of sharing and rapid dissemination should be supported with use of nationally agreed technical standards, and dissemination strategies should be in place to adapt to failure of technology or other systems.</p>
10	<p><b>Part of a bigger picture</b></p> <p>Warnings are one component within a systems-based approach to community safety. Community engagement, education and awareness programs better prepare communities to receive, understand and act upon warnings.</p>

#### Emergency planning (AIDR In Press)

Emergency planning ensures approaches to prevention, preparedness, response, and recovery are based on analysis, consultation, engagement and agreement. Emergency planning is an essential element in the implementation of the policy framework established by the *National Strategy for Disaster Resilience* (COAG 2011).

The Handbook contextualises key messages for emergency planning as considered in the *National Disaster Risk Reduction Framework* (Australian Government Department of Home Affairs 2018), *Profiling Australia's Vulnerability* (Australian Government Department of Home Affairs 2018) and the *Sendai Framework for Disaster Risk Reduction 2015-2030* (United Nations Office for Disaster Risk Reduction 2015).

The Emergency Planning Handbook provides nationally agreed principles for good practice in emergency planning. The Handbook draws on and complements current practices and provides guidance on emergency planning for communities and entities. The emergency planning process described in the handbook can be used to develop a plan for any or all phases of prevention, preparedness, response and recovery.

### Principles underpinning emergency planning

1. Emergency planning is **iterative**. Learnings from each step informs previous steps.
2. Emergency planning is **risk informed**. Planning is based on an emergency risk management study.
3. Emergency planning **reduces unknowns**. Planning increases understanding of risks and vulnerabilities across the social, built, economic, natural environments.
4. Emergency planning **builds understanding** of risks and risk reduction options.
5. Emergency planning is **collaborative and inclusive**. Planning involves consultation and engagement with those affected by the plan.
6. Emergency planning requires a **shared responsibility**. Planning documents actions to be undertaken by a wide range of people/entities.
7. Emergency planning is **solutions orientated**. Planning develops agreed approaches to managing risks.
8. Emergency planning is **strategic**. Planning develops strategic objectives, relationships and networks.
9. Emergency planning enables **adaptive capacity**. Planning develops frameworks that provide a base on which to build flexible and adaptive solutions.

### Land Use Planning for Disaster Resilient Communities (AIDR In Press)

The *Land Use Planning for Disaster Resilient Communities* handbook (AIDR In Press) focuses on land use planning for new development and its role in supporting disaster resilient communities. Land use planning that considers natural hazard risk is the single most important mitigation measure in preventing future disaster losses in areas of new development. Land use planning is a multi-objective process that requires balancing development with a range of community requirements and ongoing updating of appropriate planning tools.

By considering natural hazards early and through its processes, land use planning can evaluate and select land use mechanisms to treat disaster risk. In particular, it can direct new development to suitable locations, avoiding or reducing the exposure and the impact of new development on the behaviour of natural hazards. To effectively consider natural hazards and manage their associated risks via land use planning, collaborative approaches across a range of sectors and capabilities are necessary, including land use planners, built environment professionals and developers, natural hazard and emergency managers, and community members and leaders.

The Handbook presents the following set of nationally agreed principles for land use planning for disaster resilient communities:

**Principle 1: Prioritise life and relief of suffering**

Planning is a multi-objective process. A genuine attempt to consider the current and future risk implications of planning decisions prioritises the protection and preservation of human life of existing and new communities over all other considerations. This also includes considering the protection of emergency responders.

**Principle 2: Sustainability**

Risk avoidance, limitation of growth in risk, and reduction is a fundamental subset of overall sustainability. This means that land use planning must seek to ensure that cities, towns and regions can sustain and improve their functions over time, including avoiding, limiting and withstanding the impacts of the full range of risk associated with natural hazards. This also recognises the need to respect and maintain the natural systems upon which human systems rely in land use planning processes, in tandem with the recognition that sustainable economic, social and environmental sustainability are linked with improved resilience.

**Principle 3: Pursue resilient, sustainable and liveable communities.**

Planning decisions are to support improvements to resilient, sustainable and liveable communities, and to minimise the effects of socioeconomic spatial inequalities on vulnerable members of the community.

**Principle 4: Support the preservation, maintenance and enhancement of functional natural systems/ecosystems.**

Planning decisions are to support the preservation, maintenance and where possible enhancement of functional natural systems / ecosystems. Human systems rely on and are ultimately subservient to natural systems, even though we may damage and affect them. Decision criteria and mechanisms to support this are in place to ensure the intensification of development is compatible with the natural hazard functionality of natural systems.

**Principle 5: Recognise that some land may be unsuitable for certain activities or development.**

Planning decisions are to recognise that not all land is suitable for intensification of development and not all development types are viable at a particular location. Decision criteria and mechanisms to support decision-making based on hazard information are to be in place to ensure the intensification of development is compatible with the risk profiles of natural hazards to both existing and future development and its users.

**Principle 6: Consider cumulative impacts of changes in development and demographics**

The cumulative impacts of new development and associated demographic changes can impact on natural hazards and emergency response to natural hazards which can have adverse impacts on the existing community. The cumulative impacts of change need to be considered in land use planning decision making

**Principle 7: Consider how natural hazards vary with climate change for an appropriate planning horizon for development decisions.**

Planning decisions need to build in consideration of how natural hazards vary with climate change within the planning horizon related to the development decision. Forward planning (10, 15, 20 years) for the consideration of climate change impacts on natural hazards is the best approach to mitigate these risks on communities. The distinction between a planning horizon and the horizon of the hazard assessment needs to be considered in the decision-making processes.

**Principle 8: Promote multidisciplinary collaboration**

Risk management in communities requires coordinated and integrated action across a range of sectors and capabilities. Land use planning needs to be supported by reliable expert information on natural hazards and where possible relies on processes that draw on a diversity of stakeholders, views and capabilities.

**Principle 9: Consider natural hazards early in and throughout land use planning processes**

All land use planning processes, starting with strategic planning are to consider the management the risks to the community relating to natural hazards. Land use planning is to consider the full range of risks from natural hazards early in the planning processes, particularly by directing new development to suitable locations to avoid or reduce the exposure of new development to natural hazards and the impact of new development on the behaviour of natural hazards.

**Principle 10: Support evidence-based land use planning processes, risk assessment and scenario testing**

Land use planning processes are underpinned by a range of information to support decisions based on risk. Scenario testing and appropriate decision support tools are to be used where possible. These processes are to include deliberate data capture for information considering:

- information specific to different natural hazards and how they may vary between events of different scales and across the geographic locations in a range of scenarios.
- data analysis linked to an understanding of dynamic change (e.g. social and demographic change, changing risk factors etc.), external factors, identification of a range of risk scenarios, and risk acceptance alternatives.
- open, accessible and freely available data.

**Principle 11: Use the full range of risk treatment mechanism options prioritising avoiding risks**

Land use planning is to use the full range of mechanisms available to treat disaster risk emphasising forward and strategic planning. Land use planning is to treat risks early in the planning processes, particularly by directing new development to suitable locations to avoiding or reducing the exposure and the impact of new development on the behaviour of natural hazards.

**Principle 12: Monitoring and review of land use planning decisions**

Strategic land use planning should include ongoing monitoring and review of the effectiveness of plans in managing the growth of the impacts of natural hazards on the community.

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