

Submission
No 43

**INQUIRY INTO PLANNING SYSTEM AND THE IMPACTS
OF CLIMATE CHANGE ON THE ENVIRONMENT AND
COMMUNITIES**

Organisation: Planning Institute of Australia

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PIA NSW SUBMISSION

NSW PARLIAMENTARY INQUIRY: PLANNING SYSTEM AND THE IMPACTS OF CLIMATE CHANGE ON THE ENVIRONMENT AND COMMUNITIES

OVERVIEW

PIA NSW commend the Parliament for initiating this important Inquiry into the role and adequacy of our planning system in climate adaptation. As stated by the National Productivity Commission (2015)¹:

“Land use planning is perhaps the most potent policy lever for influencing the level of future disaster risk”

As stewards of the planning profession, PIA are committed to better planning for natural hazards. We have a significant body of work on this issue and a wide network of experts.²

PIA NSW are seeking a change to the existing paradigm, where natural hazards are viewed as contingencies rather than inevitable and increasing risks to settlement. We have consistently advocated for building back more resilient, and planning to minimise or avoid risks to new development altogether.

This letter identifies three planning principles which encompass holistic planning for natural hazards. We also outline focus areas of inadequacy in the existing planning framework.

More detailed background information and recommendations are provided in PIA NSW's previous submissions to NSW Independent Inquiries into Flood and Bushfire appended below.

PLANNING PRINCIPLES FOR NATURAL HAZARDS

A principled approach to risk management and natural hazard planning is crucial. PIA NSW advocate the following principles to plan, invest and act for all hazard situations:

1. Plan to avoid future exposure

This means using informed planning parameters to avoid unacceptable exposure of future development to natural hazards.

¹ Productivity Commission 2015, 'Natural Disaster Funding Inquiry Report'.

² All PIA policies and submissions can be found at: <https://www.planning.org.au/find-a-policy-resource>

2. Manage known risks to existing settlement

This is about improving the capability of existing communities to adapt to natural hazards. For example, by improving public information of hazard risk and building back with more resilient infrastructure.

3. Make arrangements for 'planned retreat' where legacy risks are unacceptable

In situations where risks to existing settlement and human life cannot be mitigated, there should be a governance and funding arrangement for planned retreat.

ADEQUACY OF THE EXISTING FRAMEWORK

PIA have identified the following areas requiring improvement for the NSW planning system to respond effectively to natural hazards. This is in addition to the detailed recommendations made in previous PIA NSW submissions appended below.

Accountability for hazard modelling

State Government does not currently have clear accountability for preparing and maintaining natural hazard modelling with up-to-date climate data. Responsibility for this task rests with local governments who usually do not have adequate resources and cannot operate at a landscape or catchment scale.

This modelling is the basis for subsequent planning decisions which determine hazard exposure. Inconsistent hazard modelling between LGAs causes perverse outcomes with varying levels of risk.

State Government should have clear accountability for hazard modelling at a catchment scale and maintained with up-to-date climate projections. This will help to ensure a coordinated statewide approach to managing hazard risks at both strategic and development levels. Accountability should be embedded by an objective in the EP&A Act 1979 for natural hazard mitigation.

Risk-weighted strategic planning

Regional strategic plans do not generally offer a framework for risk-weighted natural hazard planning to prioritise interventions. Resilience should be embedded more clearly in regional strategic plans to better communicate climate risks and community priorities.

Future regional strategic plans should identify planning parameters for different modelling scenarios using a risk management framework and adaptation spectrum. Existing strategies should be evaluated by testing risk profiles according to climate scenarios.

Yours sincerely,

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APPENDIX A

PIA NSW SUBMISSION TO NSW INDEPENDENT FLOOD INQUIRY

16 May 2022

The Chairs
NSW Independent Flood Inquiry
GPO Box 5341,
Sydney NSW 2001

Attn: Mary O’Kane AC and Michael Fuller APM

PIA Submission to NSW Independent Flood Inquiry

1. INTRODUCTION

Thank you for the opportunity to offer a submission. The Planning Institute of Australia (PIA) has participated in a succession of natural hazard inquiries and policy reform exhibitions. PIA would like to reverse the pattern of natural hazards being treated as contingencies rather than as an inevitable and increasing influence on settlement exposed to a changing climate.

PIA has consistently advocated ‘build back more resilient’ for legacy risks - and plan to avoid and minimise risks to future development taking into account climate change.

PIA urges the Inquiry to recommend that all tiers of Government build capacity to plan and act across the full spectrum of flood hazard situations identified in a clear risk-based framework. This should extend from planning to avoid or minimise exposure to manageable flood hazards - through to establishing the governance and funding arrangements to guide ‘planned retreat’ at the extreme end of the hazard/risk spectrum where the hazard and its impact on human life cannot be mitigated.

“One of the basic principles of environmental management is: if you can’t remove the risk, move people from the risk¹”

PIA urges the Inquiry to recommend the development of decision-making frameworks, budgets, planning tools and community leadership vital to build capacity for (voluntary) relocation of exposed settlement. PIA Working Groups from around Australia would be pleased to work with all tiers of

¹ Barbara Rugendyke, Jerry Vanclay, Angus Witherby (2022) On Higher Ground a Better Future for Lismore.

Government, industry and communities to help design these tools and frameworks - by applying the circumstances of Lismore floods.

The community and political realm would be more open to participate in broader conversations on the relocation or retreat of settlements exposed to any type of hazard when we have the frameworks in place. The relocation of Grantham in the Lockyer Valley (Qld) involved many professional planners and provided institutional responses and other lessons towards a larger scale model of planned retreat.

In addition to managing extreme exposure to natural hazards, PIA recommend planning reforms to embed resilience in strategic plans and avoid or minimise exposure. These plans are designed to strengthen the productive capacity of a region and its centres - and the wellbeing of current and future residents. PIA support a shift towards resourcing prevention and preparation as the most cost-effective approach.

“Land use planning is perhaps the most potent policy lever for influencing the level of future disaster risk” ([Productivity Commission Report into Natural Disaster Funding 2015](#)).

In contrast reconstruction and recovery is very expensive and has historically taken up over 95% of state and national budget commitments with respect to natural hazards (Productivity Commission 2015).

We are acutely aware of the need to integrate climate change into all aspects of hazard planning as described in our [climate series](#) - and PIA submissions to the NSW [Bushfire Inquiry](#), regional plans and [flood prone land package](#).

2. TERMS OF REFERENCE

PIA’s submission focuses on Inquiry [term of reference](#) 2f and 2e(ii):

2e. land use planning and management and building standards, including:

- i. the instruments, policies and programs applying to existing development in flood prone locations across NSW; and*
- ii. the instruments, policies and programs applying to proposed future developments in flood prone locations across NSW;*

2f. appropriate action to adapt to future flood risks to communities and ecosystems;

3. CONTEXT FOR PIA SUBMISSION

3.1 Background

The recent and repeated east coast floods have brought planning for natural hazards into sharp focus for future planning as well as for managing the increasingly costly legacy risk. As flood and other natural hazard risks become more frequent and severe alongside climate change, it is time to reset planning approaches to:

- **Prioritise the preservation of human life** – not only property, structures and business
- **Be more conservative in relation to planning future development** exposed to floods

- **Be systematic in decision making** – including being open to planned retreat options when managing legacy risks of existing development that are increasingly exposed.
- **Be more consistent** in how natural hazard planning parameters are applied in plans around the state and country
- **Use regional plans and associated resilience strategies** to inform place outcomes and protect strategic values of a region – including identifying what settlement is defensible – and adopting scenarios to deal with uncertainty.

The principles of the [Landuse Planning for Disaster Resilient Communities](#) Guide (AIDR 2020) remain valid and specifically principles 5, 7 and 11 are key to the PIA submission and our comments on the Lismore flood situation:

- **(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.
- **(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 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.
- **(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. These include: avoidance or reduction of exposure and reduction of vulnerability. These measures can reduce impacts upon development and the impacts of new development upon natural systems, and impacts to the community.

3.2 Climate Change Adaptation Planning

PIA have published a national [Climate Change Adaptation Discussion Paper](#), a [Position Statement](#) and advocate reforms in [Climate Conscious Planning Systems](#). These positions stress that planning strategies should:

- Test **changing hazard and risk profiles in scenarios** to inform strategic plans and address uncertainty – noting that historical projections are not always relevant in a changing climate.
- Test the **relevance of planning strategies to more pervasive and gradual changes** impacting the human and natural environment.
- Identify the **settlement planning parameters** for scenarios in a coherent and consistent way e.g. National Settlement Strategy and in Regional Planning Frameworks and resilience strategies.
- Base planning parameters on **consistent assumptions for potential exposure** regarding:
 - population and community vulnerability
 - acceptable risks for bushfire, sea level rise, flood and urban heat

- design life of housing, buildings and key infrastructure
- infrastructure demand assumptions per capita.
- Set planning outcomes and supporting guidance at a **landscape scale** – and address the vulnerability of individual properties, buildings standards, access arrangements and infrastructure within this landscape context.
- Set strategic planning responses within **adaptive management plans** or pathways that are responsive to new information and threat reappraisal. Responses should not just be cost effective in achieving a single strategic planning outcome – but consider whether they promote a diversity of pathways that might assist adaption to evolving threats - or enable managed retreat/avoidance in the future
- **Move beyond the ‘approve and forget’ paradigm** and enable adaptive management. This includes promoting innovation in governance and collaboration among local communities, Indigenous peoples and across agencies to generate solutions that fall outside traditional silos – such as green infrastructure addressing flood and urban heat threats (including vegetation).
- **Ensure consideration of climate risk occurs at every level of Government** – and that adequate information and policy context (e.g. overlays) are available for the private sector and Government to manage risks accordingly and appreciate the dimensions of uncertainty.
- **Give statutory effect to key resilience strategies**, plans or guidelines.
- Integrate the management of **natural values and protection of biodiversity**.

Resilience to natural hazards exacerbated by climate changes should be deeply embedded in plan making and development decisions. **Attachment D** expands on the expectations for the next generation of ‘resilient’ regional plans.

3.3 Outline of Lismore Flood Situation

PIA recognises the seriousness of recent flooding throughout the Sydney Basin and across Eastern Australia. However, PIA are specifically focussing on Lismore to explore key planning issues relating to legacy risks and circumstances where planned retreat is a serious option. PIA understands that situations where catchment-wide flooding affects historic settlement will become more frequent and intense. The settlements affected will increasingly include major regional centres like Lismore. NSW will need to draw on case examples such as the relocation / reconstruction of Grantham (Lockyer Valley Qld) and apply this experience at scale.

Already Lismore Council has set out options for future settlement planning in their [Discussion Paper](#) on the growth and rebuilding of Lismore. Expert groups (including PIA Fellow Angus Witherby) are also contributing thought leadership [‘Lismore – on higher ground’](#). Lismore is an important case study because of:

- The scale of harm and damage from successive major and prolonged floods – and the high human, social and economic cost of ‘no change’ to existing settlement
- The population, size and role of Lismore and its CBD as a strategically significant regional centre
- The legacy risk of settlement exposed to flood (notwithstanding levees and other mitigation measures)

- Two of the three worst Lismore floods have happened this year – reaching 14.6m well over roof tops in many areas including parts of the CBD. Other relatively recent big floods were in 2003, 2011 and 2017
- Equity issues – with flood impacts falling on lower socio-economic communities including indigenous communities many of whom have already been displaced.
- The potential for insurance premiums to become unaffordable and other costs leading to low investment and decline of amenity in the town.(Insurance Council notes \$3.35bn of claims from the recent East Coast floods (190,000 claims) many from Lismore)
- The availability of flood free land elsewhere in Lismore and the opportunity for relocation of parts of the centre.

Attachment A is Angus Witherby’s appraisal of opportunities for a planned retreat for parts of Lismore. The scenario is plausible and is included among the options of Lismore Council’s Discussion Paper (see **Attachment B** extract).

PIA urges the Inquiry to explore the opportunities and costs for ‘planned retreat’ at the scale of a major regional centre in order to recommend an effective and replicable decision-making framework, planning regime and governance and funding approach.

Section 4 below addresses the building blocks for ‘planned retreat’ that would need to be created and strengthened for the scale of Lismore - and made replicable for other centres exposed in the future.

Section 4.4 promotes good practice planning for avoiding, mapping and mitigating natural hazards with respect to future growth and development. These sections use material previously communicated via PIA submissions on the floodplain development manual and associated policy reform.

4 PIA SUBMISSION AND RECOMMENDATIONS

4.1 Establish an adaption spectrum structure and language

- Lack of a holistic framework which describes when to prevent, prepare, respond, recover or plan for retreat (of profoundly exposed settlement).
- There needs to be a shared basis on when to act and invest in major resilience initiatives such as: when to act on planned retreat for major centres exposed to unacceptable legacy flood risks.
- An example of such a spectrum is the proposed drought resilience framework by Angus Willoughby which describes what roles and actions (Local / State / Federal) Government should take (Direct action/ Advocacy / Facilitation) for different hazards situations at key stages (Immediate response / Recovery /and Building resilience). Attachment C includes an example of such an adaptation framework using drought as an example.
- We specifically lack a common language/approach to characterise different circumstances to plan or intervene on legacy risks – noting that that the majority of planning input to date has just been on the avoid / minimise end of the spectrum. The language / approach should distinguish between major riverine/ catchment floods and those related to more local stormwater drainage.
- There is a spectrum of circumstances requiring different planning responses from light touch avoiding a hazard - to potentially extreme retreat interventions.

Recommendation:

- A decision framework based on the concepts above should be adopted by NSW Government and applied by Resilience NSW in concert with Councils and State Agencies. It should inform Regional and Local Planning Strategy and be included in associated Resilience Strategies.

4.2 Include a risk management framework

- Strategic plans do not generally offer a natural hazard risk weighted framework to inform the priority to apply to potential interventions – nor acknowledge/empower different community appetites for risk (see example below from the AIDR Handbook).
- While exposure to natural hazards and their risks will vary – a community’s appetite or ability to accept risks as tolerable will vary.
- Obviously where existing or proposed development is at the extreme end of the risk/ consequence spectrum – then greater planning or management intervention is necessary.
- Climate change will increase the likelihood of hazards and mean that more settlement is exposed to high / extreme risk.

Table 4: Risk matrix presented by the National Emergency Risk Assessment Guidelines (AIDR 2020)

LIKELIHOOD	CONSEQUENCE LEVEL				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
ALMOST CERTAIN	Medium	Medium	High	Extreme	Extreme
LIKELY	Low	Medium	High	Extreme	Extreme
UNLIKELY	Low	Low	Medium	High	Extreme
RARE	Very low	Low	Medium	High	High
VERY RARE	Very low	Very low	Low	Medium	High
EXTREMELY RARE	Very low	Very low	Low	Medium	High

- Resilience strategies prepared with community involvement should set the triggers for action in response to community risk appetites (If there is no early warning or flood free egress is restricted then the risk appetite may be lower). Resilience strategies would identify what risks the community regard as ‘generally intolerable; and which require frisk treatment or even elimination (refer ALARP Principles, PIA 2015).
- For example, resilience strategies would consider the different implications of flood hazards (eg PMF v 1:100 - or Stormwater flow parameters) and enable the adoption of locally and relevant planning controls or management actions.
- It is noted that mixed use activity centres may have a greater consequences from hazard exposure than industrial sites and may have a lower risk appetite.

Recommendations:

- DPE and GCC (in collaboration with Resilience NSW) establish decision criteria for planning and response based on a risk weighted hazard framework embedded in spatial planning. Resilience Strategies (integrated with Regional Plans) are the best place for this work.
- DPE to enable locally tailored adoption of relevant planning controls for flood risk exposure (eg enabling control of development above the 100 year ARI) based on the framework – potentially via a Ministerial Direction.

4.3 Value of planning for adaptation – desired outcomes

- Flooding can compromise the long term economic and social role of strategic centres and disrupt the value embedded in a regions spatial structure and centres hierarchy.
- Regional plans and local planning strategies recognise and reinforce the economic and social role of major centres and other nodes. The effective operation of these centres for employment, business activity, access to services and housing is a key outcome of strategic planning.
- Planning for resilience is not only about protecting the individual safety and wellbeing of residents and businesses – but should be alert to the planned role and value of the centre and its assets to the regional economy.
- For example, there is a real risk that loss of investment in Lismore CBD and nearby housing could impact the economic geography of the North Coast by:
 - Reduced return on investment in major infrastructure and service delivery assets in Lismore (eg CBD, Hospital, Uni and other enterprises / hubs)
 - Reduced local / regional employment opportunities – and potentially reduced agglomeration economies
 - Greater disconnection / distances between the locations of housing, jobs and services
 - Greater activity in other centres that may not have the supporting housing settlement and amenity needed to take up the slack
 - Concerns that activity may relocate to areas that are also highly exposed to natural hazards (eg Ballina CBD)
 - Community dislocation and associated public and private costs of providing shelter (noting housing may not be available in the region), services and welfare.
- For future growth strategies to be credible they must plan and manage natural hazard exposure of key centres and other hubs/spatial elements. They must be specific on the place outcomes sought and the role and values of key centres – so that informed decisions can be made regarding future risk avoidance and the management of past legacy risks.

Recommendations:

- GCC and DPE to require Regional and City Plans and LSPS – to define values / help prioritisation of adaptation planning and more deeply embed resilience concepts.
- Resilience Strategies should be jointly funded by all tiers of Government to complement Regional, City and LSPS. This should be facilitated by Resilience NSW.
- National and State Settlement Strategies should identify the regional significance of centres for growth and priority infrastructure investment. A settlement strategy should require the use of common and coherent planning parameters for climate change / natural hazard exposure and infrastructure demand per capita. A NSW Settlement Strategy should be prepared by DPE and GCC according to a DPC framework.

4.4 Improved planning measures to avoid and minimise flood hazard and risks

There are a range of existing policies which regulate development in flood prone land. Many of these provisions are important in providing decision-makers, development proponents and planners with the information they need to assess and manage risk. However, the volume of regulation and sometimes competing purposes has created confusion in the planning sector.

Two optional local environmental plan provisions have been introduced since 2021 – the **Special Flood Consideration clause** and the **Natural Disaster clause**. Each provision can be added by local governments to their local environmental plans. PIA NSW supports the operation of the Special Flood Consideration clause in the current policy environment. It provides sensible decision-making criteria for local government for sensitive or hazardous development between the flood planning area and probable maximum flood. Conversely, the Natural Disaster Clause simply allows the rebuild of a dwelling house or secondary dwelling which was damaged or destroyed by natural disaster in any circumstance where it was lawfully erected. Understandably, communities seek to recover from a natural disaster and a core part of the recovery process is rebuilding. Recovery should incorporate risk-responsive planning principles, which the current Natural Disaster clause fails to offer. These clauses have different objectives and would operate contrary to each other in practice. PIA NSW does not support the simple ‘build back’ option made available by the Natural Disaster clause.

PIA NSW supports the update of the **Floodplain Development Manual** that was recently exhibited. In a submission to the exhibited of the updated manual, PIA NSW raised concerns that the very long and technical document did not easily integrate with existing planning process. It was considered that additional resources like a Planning Quick Reference Guide and model planning elements would assist planners in incorporating these technical elements into decision-making. For more detail and recommendations, PIA’s submission can be accessed [here](#).

Additional flooding considerations were also raised in the **Flood Prone Land Package** exhibited in 2020. PIA NSW raised a number of matters requiring further consideration in a submission at that time. Particularly relevant was the need for improved mapping for flood prone land. There is significant variation in how councils approach the task of flood mapping, with some providing it in the LEP or DCP and some simply providing a map on their website. Additionally, there is little consistency in what material is relied upon to prepare the mapping or what the map itself shows (eg. 1% AEP, 1 in 100 year floods, freeboards or probable maximum flood (PMF)). This information should be easily accessible and digitised to provide transparent information to communities, development proponents, planners and other interested parties. For more detail and recommendations, PIA’s submission can be accessed [here](#).

Further discussion of natural hazard management was located in the Strategic Planning Guideline for Natural Hazards exhibited in 2021. PIA NSW support the content and scope of these guidelines, however called for greater detail, clarity on what planning scenarios should be adopted and what legislative or other policy reform would be required to enforce the intent of the guidelines. For more detail and recommendations, PIA’s submission can be accessed [here](#).

The above discussion demonstrates how dispersed key considerations regarding flood planning are across the planning system. Understandably this creates confusion amongst non-technical practitioners and community members looking to understand risk, hazard avoidance and decision-making obligations. Consolidation and rationalisation of these processes would add significant clarity to these processes and improve outcomes for organisations and the community.

The burden of floodplain planning falls largely on Local Government. Councils usually do not have the resources or capacity for detailed evidence gathering around flooding resilience and mitigation, and importantly understanding changing frequency and severity of flooding as a result of climate change. Flood planning often relies on outdated modelling of complex systems. These organisations

are also burdened with meeting state-mandated outcomes such as housing targets, therefore requiring the release of potentially flood impacted land for development

Further assistance is required by the NSW State Government in the ongoing research and analysis of flood mitigation in response to a changing climate across the state. (State led research and/or funding available for local flooding and adaptation plans / resilience strategies in response to increasing number of episodic shocks.

Recommendations:

- Remove the optional Natural Disaster Clause from the Standard Instrument LEP and work with the 32 councils that have already adopted the clause to find alternatives. Any appropriate alternative rebuild clause should incorporate risk-responsive planning principles.
- Run a second expression of interest round for the Special Flood Consideration clause.
- Support the updated Floodplain Development Manual with additional resources for planners, including a Planning Quick Reference Guide and model planning elements.
- Support local government in standardising and updating mapping of flood prone land to ensure it is readily available in a digitised format.
- Support a program of State funding of updating catchment flood modelling and mapping to assist Local government to keep information up to date and responsive to climate change scenarios. Catchments and LGAs should be prioritised based on a risk framework.
- Consolidate the wide-ranging set of flooding considerations across local environment plans, the floodplain development manual, flood prone land package and strategic planning guidelines for natural hazards.

4.5 Elements of a 'planned retreat' framework (based on Lismore flood situation)

Note: This section focusses narrowly on planning for long term resilience because policy development is weakest regarding long term 'planned retreat' at the scale of a major town like Lismore. The Council Discussion Paper addresses a combination of engineering measures, permanent and temporary levees and other management and recovery measures – all of which have merit, but are not discussed here.

Two of the three worst Lismore floods have happened this year – reaching 14.6m well over roof tops in many areas including parts of the CBD. Other relatively recent big floods were in 2003, 2011 and 2017. The loss of life, ongoing hardship and impact on livelihoods is traumatic.

The legacy risk and consequences of exposure to repeated significant floods is obvious. What is lacking is a scalable model to deliver the institutional capacity and funding to manage planned retreat for major centres. This model should be transferable and ready to be applied to different future hazards / places. The operation of the Queensland Reconstruction Authority relocating much of the village of Grantham is very relevant but nowhere near the scale of flood affected portions Lismore.

An endorsed decision-making framework is needed to determine where extreme interventions are warranted to address legacy risks (based on a risk management framework within a broader adaptation spectrum – see 4.1-4.2).

Lismore Council and Local Experts are showing the way 'planned retreat' options can be developed and communicated with the community.

Council and community options should be supported by institutional capacity and funds made available by State and Federal Government – acknowledging a shared framework for prioritising intervention.

PIA will be recommending initiatives to boost capacity to undertake planned retreat at all different scales / hazards into the future. Processes, actions and institutions applicable to Lismore flood reconstruction / relocation should be 'generalised' and made ready for roll out in the future.

PIA has previously noted that planned redundancy is one element of a resilient system (see **Attachment D**) – having hazard adaptation measures and institutions 'at the ready' is appropriate in an uncertain future affected by climate change. NSW Government has long retained previously dormant pandemic response capability for similar reasons.

There are prospects for Lismore, NSW and Australia to show global climate adaptation leadership by adopting a 'bounce forward' approach (Barbara Norman, Newman and Steffan , 2021²). Opportunities could evolve for a 'centre of excellence' - building on Lismore experience.

a. **Governance / institutional arrangements - for long term adaptation**

- There are roles for two state entities that need to be clarified, established, resourced and maintained beyond individual natural hazard events. The entities could serve their roles for various natural hazards not only flooding. The roles of Resilience NSW and the new Northern Rivers Reconstruction Corporation could be untangled:
 - **'Adaptation Prioritisation Entity'** - An entity responsible to manage the State's risk management framework (see 4.1 & 4.2) and identify long term adaptation investment priorities and ensure long term adaptation is reflected in regional planning strategy (this could be Resilience NSW (or an alternative – in consultation with DPE/GCC/INSW). There would need to be a cabinet process to endorse priorities via DPC. There is also an opportunity for a chief resilience officer – analogous to NSW chief health officer to communicate the entity's mission.
 - **'Adaptation Action Implementation Entity'** - An entity responsible for the execution of adaptation strategies – managing reconstruction / relocation during and beyond recovery. The entity's mandate would be to build back more resilient – not exacerbate risk recognising a changing climate. This entity should not need to be recreated for every new disaster. The [Queensland Reconstruction Authority](#) (QRA) serves this role. The [Northern Rivers Reconstruction Corporation](#) (NRRC) is a supported - but lacks some of the capabilities of QRA due to its origin under the Growth Centres (Development Corporations) Act 1974 NSW. This entity would need to exist permanently, but and be able to be scaled up/down, it would benefit from the following capabilities:
 - Preparing and executing an 'adaptation implementation plan' (prepared in concert with Council) for scoped tasks identified by the 'Adaptation Prioritisation Entity'
 - Have a build back more resilient mandate – not exacerbate risk

² [Apocalypse Now Barbara Norman.pdf](#)

- Capacity to collaborate and enable community leadership/involvement in partnership with council
- Streamlined contract management and procurement processes
- Land acquisition / land swaps and management
- Compulsory land acquisition powers - but only for an endorsed 'adaptation' purpose under its plan
- Land use planning powers – only where applied to promote reconstruction / relocation under its plan
- Infrastructure prioritisation, project development, procurement and delivery
- A strong balance sheet enabling sustained operation - and the capacity to disburse and receive funds
- Core funding budgeted on a program basis

Recommendations:

- Ensure that the role for an '**Adaptation Prioritisation Entity**' is clarified to manage NSW's natural hazard risk management framework – and identify where/when significant state intervention is required for risk avoidance/minimisation or reconstruction/relocation planned retreat.
- Ensure the '**Adaptation Action Implementation (Reconstruction) Entity**' is permanently established as a statutory authority under specific legislation and able to be scaled up/down in relation to multiple different hazards. It should have clear responsibility for execution and full suite of capabilities and funding for adopted 'adaption implementation plan' outcomes in step with Councils and the community.

b. Inter-governmental roles

- The subsidiarity principle for resilience notes that the least centralised body able to make effective decisions should guide community involvement and set out a plan for recovery and long-term adaptation. Lismore Council and its community have begun this process and set out options in their discussion paper. They should be supported with the capacity offered by State entities and funds and national adaptation framework from Federal Government.
- The section below appreciates that Council will need access to state funds and capacities for flood planning (eg funding flood model updates and preparation of Resilience Strategies) as well as large scale implementation of an adaptation strategy – and associated land acquisition, reconstruction, relocation and infrastructure works.
- There is a role for the Federal Government at every phase from immediate response (eg stimulus and concessions) – through recovery (eg funding regional assistance, loans, accelerated depreciation etc) - to long term adaptation actions (eg setting a National Settlement Strategy context, Climate Adaptation Plan, infrastructure prioritisation and funding and adaptation industry capacity building). The responsibility of the National Recovery and Resilience Agency would need to be clarified in relation to these roles.

Recommendation:

- Establish a framework for intergovernmental agreement on natural hazard adaptation responsibilities – based on the subsidiarity principle.

c. Funding and finance

- Significant public investment in Lismore's social and economic infrastructure is inevitable to retain and strengthen Lismore's long term regional role. The scale and timing of funding to potentially relocate Lismore CBD or large areas of significantly flood affected housing is

beyond the capacity of local government to generate from the local rate base alone (see **Attachment A**).

- Significant unavoidable costs will still be imposed on private households (often not fully insured), council and state infrastructure and social service agencies - even if relocation does not occur. However, relocation and other management options have the potential to reduce future costs and exposure to flood hazards.
- Rapid analysis of the economic and financial costs and benefits – and their distribution should inform all adaption options including relocation / planned retreat.
- Ultimately a National / State / Local funding agreement should be established for economic options refined via the implementation plan developed through the NRRC. This could be under the context of a national/state adaption plan.
- State (and Federal) funding of significant long-term initiatives such as Lismore CBD should be drawn from budgeted programs to improve adaptation – rather than dealt with as contingent liabilities on the budget.
- The relocation of Grantham provided experience on cost sharing among different tiers of government and different agencies. Initial cost estimates of works were inaccurate. Arrangements should be made to share the liabilities of inevitable cost overruns rather than default to the purchaser. Mechanisms such as establishing a reference price for works should be adopted. The reference price can be indexed and funds distributed at intervals based on milestones.

Recommendations:

- Establish an intergovernmental funding agreement for Lismore flood adaption works – and use this as a basis for future agreements.
- Treasury and INSW include priority adaptation works (including Lismore) as part of a budgeted program of long-term climate resilience building works – rather than just a contingent liability.
- Treasury and relevant agencies include cost sharing arrangements for budget overruns.

d. Insurance

- A functioning insurance market is essential to sustain investment in housing and businesses (and their mortgages) which underpins the regional role of Lismore.
- Insurers have a common interest in improving the flood security of their policy holders.
- Already some \$3.35Bn in insurance claims have been received as a result of east coast floods in 2022.
- When natural hazard risks increase premiums out of reach of the local market then there may be a risk to future confidence in development and regional prospects.
- Insurers operate according to their contracts and an industry code of practice which requires that payment on claims be made within four months. Payments and/or works in kind typically are made at the same location as the claim – this poses difficulties as the insurers are implicitly committing to rebuilding at a location that is still exposed to flood hazard.
- Arrangements need to be negotiated with the insurance industry to facilitate fulfilling claims at different / safer locations for rebuilding. As it will take longer than four months to identify and secure alternative flood free sites – some flexibility will be required.

Recommendation:

- The Inquiry could recommend an insurance / mortgage finance industry / Government forum to:
 - identify the factors influencing the sensitivity of premiums to flood risks

- resolve impediments to insurance claims funding aspects of planned retreat – and
- avoid funding reconstruction that is exposed to hazards
- identify insurance products and ways of operating best suited to an increasing climate risk environment

e. Strategic planning and assessment roles, building controls

- The local planning regime enables landuses and development aligned with regional and local strategy – informed by resilience strategy / adaptation plans. Planning should promote resilience and not encourage extensive redevelopment that is continuously exposed to flood risk without consideration of alternatives.
- There are some areas and circumstances where building back in situ will risk human life as well as property. However, personal trauma and the need for shelter for flood survivors is a fundamental need to be respected.
- Planning requires consideration of the desired outcomes for an affected area outside of the flood event, at a time when the grief and recovery of the disaster cycle has passed. It requires collaboration between the community, State Government and local councils and for a clear vision to be established as to what an area may look like post-disaster (i.e. a change from what was, to what must be to ensure safety and reduced risk/costs.)

-

Recommendations:

- A rapid assessment process that is responsive to short term recovery and shelter needs but reflects long term adaption strategy should be available to councils / reconstruction authority – potentially by way of a SEPP. This would ensure that the right suite of powers and controls are available ‘off the shelf’ and applied accordingly.
- Ensure a clear line of sight between strategic plans that may identify no further development in at-risk areas and development standards and controls in those areas.

f. Infrastructure planning and delivery - for resilient infrastructure

- Considerable progress on planning for infrastructure resilience is set out in NSW Treasury/INSW [Guidelines for Resilience in Infrastructure Planning](#) and Infrastructure Australia/INSW [A Pathway to Infrastructure Resilience](#). These guides are based on prioritising investment in place outcomes, strategically aligned projects and alternatives that are tested using scenario planning.
- PIA supports the thrust of these guidelines in prioritising investment in projects that are aligned with a resilience strategy – potentially within a state program of climate adaption works.
- In Lismore, infrastructure reconstruction (or new infrastructure to support relocation) – should be delivered in a way that is not exposed to unmitigated hazards – nor exacerbate threats.
- Funding for infrastructure should not be costed as ‘like for like’ but specified to be resilient to future flood scenarios. New or replacement infrastructure should be able to be located in other planned retreat rebuilding locations.

Recommendation:

- The principle that infrastructure should be specified, located and funded in a manner that is resilient to flood threats should be embedded in state/national funding agreements.

g. Land acquisition / swaps

- Much development in Lismore is at risk of remaining (or becoming) uninhabitable or unusable for business. It is understood that many residents of flood affected portions of Lismore are already lower income earners and include a First Nations population that has already suffered dislocation.
- If owners or occupants have insufficient financial capacity to rebuild, insure and maintain premises - or are not permitted due to flood risks – they will be faced with an impasse and associated trauma.
- Relocation options for Lismore CBD and some affected residential areas (See Attachment A & B) could involve voluntary land acquisition of flood affected property and potential land swap arrangements in a new site (eg via ballot).
- The acquisition of flood free relocation sites may require some compulsory acquisition for key sites needed to link redevelopment to the existing town transport and infrastructure network.
- Valuation of flood affected land acquisition could test the valuation criteria of the Land Acquisition (Just Terms Compensation) Act.
- Grantham village relocation experience highlights the importance of community acceptance of a fair acquisition and land swap process.
- Any land acquisition and land swap process should take place with open engagement and community empowerment under an adopted adaption plan consistent with Council's Land Use Management Strategy / LSPS.

Recommendation:

- Legal authority and capability (funds) to undertake land acquisitions (including compulsory acquisition) should be allocated to the reconstruction authority according to the planning purposes endorsed in an adaption plan.
- The future use and sympathetic development of acquired flood prone sites should also be subject to the adaptation plan.
- NSW Government should consider the fitness for purpose of the valuation criteria of the Land Acquisition (Just Terms Compensation) Act for flood affected property.

h. Community empowerment

- Council has commenced the long-term discussion of relocation alternatives – together with the NRRC - they need to enable local community leadership to take the housing and economic development options forward.
- Community engagement and leadership in relation to flood impacts and desired outcomes is undertaken outside of the grief and recovery of the disaster cycle. It needs to create an ongoing understanding of the changing nature of the area, to ensure minimal shock and reactive policies/planning controls. A community that understands future changes that may take place is a more resilient community.
- There is an opportunity for the community to embrace a positive message that establishes Lismore as an exemplar of adaptive reconstruction at scale.
- Maintaining First Nation connection to country is a community priority.
- Grantham relocation experience maintaining consistent frequent open engagement and the Mallacoota community experience of leading their own solutions are important lessons.

Recommendation:

- Council and the NRRC should build community capacity to take a leadership role in developing and implementing relocation and redevelopment options (as part of an adaption plan).

5 CONCLUSION

PIA urges the Inquiry to recommend that planning systems be reset to adapt to increased natural hazard threats in a changing climate.

Resilience should be more deeply embedded in planning strategies and ensure that where there is threat to human life and property that is unable to be mitigated then development should not occur.

Planning and management decisions for natural hazards should be undertaken in the context of an adaptation spectrum and risk management framework.

Councils and State planning agencies should be funded and equipped with the data, mapping and updated modelling needed to inform risk management and planning. There is a role for Resilience Strategies to include regional risk management frameworks and inform regional and local land use plans.

Where existing development is deeply exposed to flooding or other hazards a range of future options should be openly considered - including planned retreat / relocation.

Affected councils should be supported by an ongoing reconstruction capability – a state authority with sufficient powers and access to program funding.

PIA support Lismore developing a community leadership model for reconstruction and potentially planned retreat based on building back more resilient.

Please contact myself or John Brockhoff for further information on our submission. PIA would welcome the opportunity to present to the inquiry.

Yours sincerely

Sharon Smith

PIA NSW President

ATTACHMENT A:

Relocate the Heart of Lismore? Let's talk about the Numbers

Angus Witherby mPIA (Fellow), Land Use Planner, Geographer and Economist (7 April 2022)

"There is a growing discussion about relocating the CBD of Lismore, and what to do about housing that needs to be replaced or rebuilt. For this discussion to develop further, we need to talk about the numbers. Others can and are talking about possible sites, mechanisms and the human issues.

The key question that we need to answer is "does it make economic sense to consider a new CBD and associated residential housing?". If we are to rebuild Lismore where it is, there are two major components, rebuilding the CBD, and repairing or replacing severely damaged dwellings.

Solid numbers are virtually impossible to come by. Every press release of the Insurance Council of Australia has a higher price tag on the SE Queensland and Northern NSW flood events of last month. From \$900M to \$1.4B the amount keeps climbing. Can, however, we develop some initial "broad brush" numbers to see if the economics of this are worth serious investigation? Yes, we can.

Rebuilding the CBD

Some starting assumptions are essential. While the overall CBD and periphery is some 60ha, the "core" CBD is closer to 20ha. There are, based on a recent retail census, some 330 businesses in the core CBD ignoring the arcades and the upper floor businesses. We can also estimate stock losses, equipment losses and clean-up/repair costs. Add in waste disposal, and public realm costs, a preliminary estimate to get the core CBD back on its feet is \$440M. This does not take into account lost wages during the flood event, but does look at turnover losses. If we assume another (say) 5 floods over the next 20 years, total costs would be some \$2.2B. This \$2.2B are costs we avoid, if we put the CBD somewhere else. On this number alone, the potential cost savings are massive.

Residential

Damage is still being assessed, and this will take months. We can, however, look at some preliminary estimates. Potentially some 5000 dwellings have some form of damage, of which maybe 1000 have severe damage and 50 may need to be replaced altogether. The Insurance Council of Australia has estimated total costs and the number of claims. Although both are rising, the average cost per dwelling is around the \$22,000 mark. If we look at a typical cost to replace a modest house, and make an assumption about major repair costs, we can come up with some estimates. Spreadsheets being what they are, these numbers can be refined as better data becomes available. My first estimate of residential rebuild costs is approximately \$600M.

So, altogether, we are looking on these very general numbers at over \$1B to rebuild where we are.

Costs of a new site

Let's look at the other side of the coin, what the costs might be to develop a 20ha new CBD plus residential housing on, say, a 60ha site. Development costs are also slippery, and depend very much on what is already there, the topography, and a range of other factors. There's a fairly well-developed literature in this area, from which we can derive a range of estimates. In rough terms "roads, pipes and wires" are likely to be in the order of \$65,000 per lot, and we can get about 22 lots per hectare of land. Our 60ha site will therefore cost us about \$85M for the basic infrastructure. If the land is in the public realm, and Government wants to facilitate this, then we can avoid some significant development costs. Add say 30% for improvements outside the site, and some other costs, we come up with \$110M.

This, of course is before we actually start building any buildings. When it comes to having to replace buildings altogether, this is a "neutral" cost, as it will be roughly the same on a new site as for an existing site. It would certainly be more expensive to rebuild rather than repair in many instances, and this needs to be considered.

To build again in a new site, we would be looking at, say, \$400M for the CBD component, and say \$440M for the residential components. Round it up and include land development costs and we might be looking at \$1B.

So, in very rough terms, go or stay would be about \$1B. When, however, we look at the avoided costs, adding together the residential and commercial costs over the next 20 years give us \$4.4B. On this basis, it's a no-brainer, even if some of the costs are considerably out of whack."

ATTACHMENT B:

Recommendations of Council discussion paper on growth and rebuilding of Lismore

Lismore Council (May 2022) Review of Lismore's Land Use Management Strategy

PIA supports consideration of the discussion paper recommendations and urges broader State and National collaboration to enable the actions quickly and to build institutional capacity for future comparable situations where planned retreat is an option.

Recommendations 1,3 and 4 focus on a planned retreat options from the legacy risk. Recommendation 2 explores flood protection options for the CBD. Other recommendations focus on enhancing the capacity of Lismore to accommodate dislocation and future growth in a socially and economically sustainable manner.

"Council Recommendation 1: A planned retreat of residential dwellings from the most high flood risk areas of North and South Lismore is identified as a strategic objective. Lismore City Council will advocate for a State and Federal Government funded land swap arrangement to allow residents to move to higher ground but remain close to existing social networks and jobs. Where landowners elect not to relocate, voluntary house raising and other flood adaptation work will be encouraged.

Council Recommendation 2: Protection of the CBD and land on the eastern side of the Wilsons River is identified as a strategic objective. Details of future flood mitigation measures will be determined in a new Floodplain Risk Management Plan and the CSIRO flood mitigation study for the Richmond and Wilsons catchments. Lismore City Council will advocate for a Federally funded reinsurance guarantee similar to that announced for North Queensland to provide additional certainty to CBD businesses.

Council Recommendation 3: Investigations into the expansion of the Goonellabah Industrial Precinct along Oliver Avenue as shown in Figure 4 will be undertaken. A new strategy for economic recovery and growth will be undertaken by Lismore City Council, along with a cost / benefit analysis for the relocation of existing industrial land.

Council Recommendation 4: Preliminary design and feasibility work is undertaken to establish whether a new commercial or mixed-use centre could be established in the location of the golf course at East Lismore in the longer term (20+-years).

Council Recommendation 5: New areas are zoned R3 for medium density residential use as shown in Figures 8 & 9, along with consideration for increased height limits for existing mixed use (B4) zoned land on Crawford Rd adjacent to the Northern Rivers Football Academy (Figure 10).

Council Recommendation 6: To ensure affordable housing is included as part of Lismore's growth, all land identified for future residential rezoning, (including village and large lot residential zoning) or a change in LEP controls to allow for greater density, will be included in Lismore's Affordable Housing Contribution Scheme and subject to a process of determining a viable rate.

Council Recommendation 7: In recognition that the delivery of water and sewer infrastructure is the key constraint to accelerating the delivery of new housing, Lismore City Council will undertake a review of the Infrastructure Delivery program to identify measures to fast-track infrastructure to new land releases outside of flood affected areas."

ATTACHMENT C

An Example Adaptation Framework (A Witherby 2022 – Drought Example)

What resilience could look like...

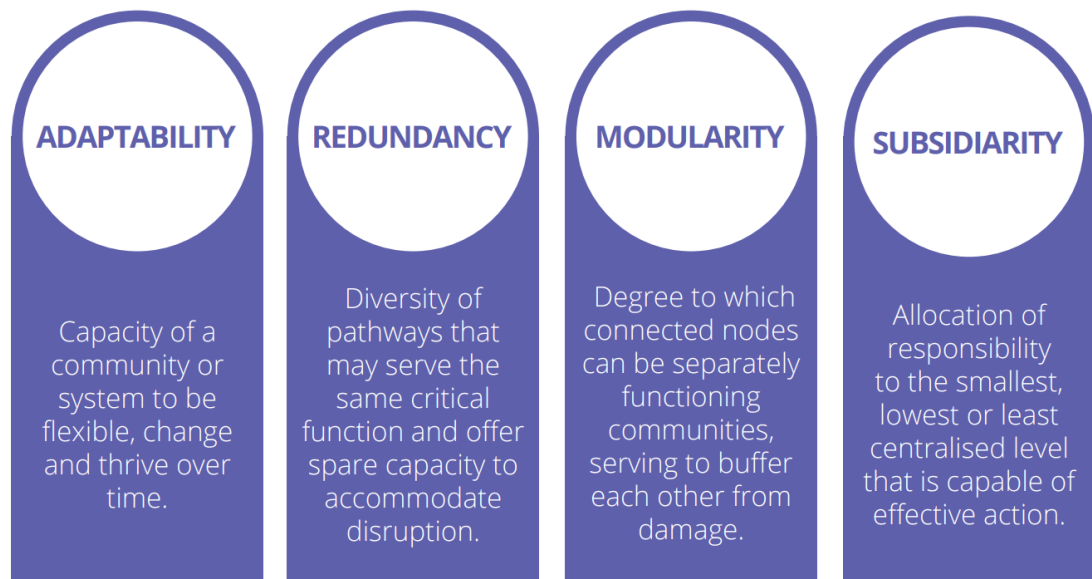
Role	Local	State	Federal
Direct Action	<ul style="list-style-type: none"> Comprehensive local drought policies tailored to local needs Comprehensive local programs "ready to go" when drought is triggered Built infrastructure that maximises economic returns/activity to community Ongoing local economic diversification 	<ul style="list-style-type: none"> State drought policy/infrastructure programs focused on broadbased resilience: <ul style="list-style-type: none"> Water- infrastructure, management of water resources Social/community including social infrastructure support (health, education) Economic resilience through ongoing economic diversification Reform administrative and other processes to reduce complexity/cost of compliance 	<ul style="list-style-type: none"> Review Murray Darling Basin Plan Modified tax system for regional communities Infrastructure funding based on productivity not population Ensure free trade agreements allow for drought responses (e.g. grants) Rural adjustment/restructure programs Broaden Farm Management Deposit to a general Business Management Deposit and make available to corporate structured entities Reform administrative and other processes to reduce complexity/cost of compliance Establish 5 year tax averaging to level out good and bad years
Advocacy	<ul style="list-style-type: none"> Seek long term policy changes/infrastructure funding to support resilience: <ul style="list-style-type: none"> Water, Social/Community, Economic 	<ul style="list-style-type: none"> Continued support for agriculture including irrigation within national framework 	<ul style="list-style-type: none"> Continued support for agriculture at the global stage Support irrigations as an essential farming technique Build secondary industry and processing through investment incentives Support the social license for rural enterprise and activities
Facilitation	<ul style="list-style-type: none"> Coordinate drought resilience building at local level Individual awareness and preparedness for drought 	<ul style="list-style-type: none"> Coordinated drought resilience building at regional level State-wide preparedness education campaigns 	<ul style="list-style-type: none"> Coordinated drought resilience building at national level

Additional slides cover what 'immediate response' and 'recovery' roles involve. They could form part of a national resilience framework which:

- Allows federal, state and local polices to co-exist
- Guides key elements that policies should address
- Contains common definitions, agreements and responses
- Coordinates responsibility, resourcing and delivery of short and long term actions
- Provides for state and local flexibility and variation

ATTACHMENT D

Elements of Resilient Systems ([PIA 2020](#))



ATTACHMENT E

Resilience in Regional Plans (PIA Advocacy 2022)

NSW regional plans could be strengthened to adopt clearer place-based outcomes – and ensure that they respond to the environmental shifts that have unfolded following the black summer fires and 2022 East Coast Floods. This would mean improving their treatment of ‘resilience’ and acknowledging its implications for planning and adaptive management systems.

Future plans should be informed by a resilience strategy, however, ‘resilience’ as a planning concept can be more deeply embedded throughout future regional plans. Future regional strategies should aim to:

- Test changing hazard and risk profiles in scenarios to inform strategic plans and address uncertainty – noting that historical projections are not always relevant in a changing climate.
- Test the relevance of planning strategies to more pervasive and gradual changes impacting the human and natural environment – especially climate change.
- Identify the settlement planning parameters for scenarios in a coherent and consistent way e.g. National Settlement Strategy and in State and Territory Regional Planning Frameworks and resilience strategies.
- Base planning parameters on consistent assumptions for potential exposure regarding:
 - population and community vulnerability
 - acceptable risks for bushfire, sea level rise, flood and urban heat
 - design life of housing, buildings and key infrastructure
 - infrastructure demand assumptions per capita.
- Set planning outcomes and supporting guidance at a landscape scale – and address the vulnerability of individual properties, buildings standards, access arrangements and infrastructure within this landscape context.
- Set strategic planning responses within adaptive management plans or pathways that are responsive to new information and threat reappraisal. Responses should not just be cost effective in achieving a single strategic planning outcome – but consider whether they promote a diversity of pathways that might assist adaption to evolving threats - or enable managed retreat/avoidance in the future (NB. characteristics of resilient systems include ‘adaptability, redundancy, modularity and subsidiarity).
- Move beyond the ‘approve and forget’ paradigm and enable adaptive management. This includes promoting innovation in governance and collaboration among local communities, Indigenous peoples and across agencies to generate solutions that fall outside traditional silos – such as green infrastructure addressing flood and urban heat threats (including vegetation).
- Ensure consideration of climate risk occurs at every level of Government – and that adequate information and policy context (e.g. overlays) are available for the private sector and Government to manage risks accordingly and appreciate the dimensions of uncertainty.
- Give statutory effect to key resilience strategies, plans or guidelines.
- Integrate the management of natural values and protection of biodiversity

(See full article: Brockhoff J (2022) Expectations for the next generation of regional plans, New Planner Issue 130 March 2022)

APPENDIX B

PIA NSW SUBMISSION TO NSW INDEPENDENT BUSHFIRE INQUIRY

21 April 2020

Mr Dave Owens APM and Professor Mary O’Kane AC
NSW Independent Bushfire Inquiry
GPO Box 5341
Sydney NSW 2001

Joint Chairs,

PIA Submission to the NSW Independent Bushfire Inquiry

The Planning Institute of Australia (PIA) is the national body representing planning and the planning profession. We engage with over 10,000 practitioners each year through events, education and training and represent over 5,600 members with almost a third in NSW.

Planners have an acute interest in strengthening our state and nation’s resilience to bushfire. It is a fundamental objective of our planning systems to provide for human safety and improved resilience to hazards.

The role of planning is underpinned by an acknowledgement that global heating and climate change are increasing bushfire hazard. PIA has adopted [Planning in a Changing Climate](#) (national policy) and [Climate Change and Biodiversity Loss](#) (NSW policy) that recognise the need for urgent and deep reductions in greenhouse gas emissions and the need for complementary mitigation and adaptation strategies for reducing and managing the risks presented by climate change.

PIA supports a cultural shift to embed bushfire (and natural hazard risk management generally) in every layer of strategic planning policy and guidance - so that it becomes ‘business as usual’. PIA’s key messages are that:

- A. Planning should shape what is meant by ‘build back better’.
- B. Planning for risk avoidance is a valid planning strategy.
- C. Strategic planning for bushfire protection should be given stronger effect – by:
 - integration of climate and disaster resilience into planning decisions;
 - strengthening the statutory basis for implementation of bushfire planning guidelines; and
 - ensuring all values are considered - including biodiversity.
- D. Planning should enable communities to lead adaption and management.

E. Planning should seek a stronger role for indigenous communities and an expression of their knowledge.

Our attached submission focusses on a subset of the inquiry's [terms of reference](#) dealing with the role of strategic planning and development assessment in strengthening resilience to bushfire (ToR Nos. 5 & 6) and community and ecosystem adaptation to future bushfire risks (ToR No. 7). Our submission also promotes the application of indigenous fire knowledge (ToR No. 6).

PIA's specific recommendations for reform are collated in the following table - and included separately under the relevant sections in our attached submission.

Please do not hesitate to contact _____ if you would like further information. PIA welcomes the opportunity to provide this submission and would appreciate an opportunity to address the Inquiry.

Yours sincerely

Juliet Grant
NSW President
Planning Institute of Australia

PIA Recommendations to NSW Bushfire Inquiry

Planning to 'build back better'

1. Establish proportionate development pathways for rapid rebuild in suitable areas.
2. Resource the bushfire planning referral capacity within RFS to ensure timely and senior feedback in proportion to the implicit threat of the development or plan being refused.
3. Resource RFS / expert capacity to provide revised Bushfire Attack Levels (BAL) to properties suffering fire damage to help owners appreciate the rebuild standard going forward.
4. Re-evaluate physical infrastructure affected by fire before being rebuilding like for like – this means building back more resilient infrastructure by making budgetary provision for re-evaluation and re-location.
5. Establish a framework for enabling temporary flexibility for certain planning controls for crisis accommodation, demolition and storage during recovery
6. Ensuring systems (ie lists / referrals processes/ simple procurement processes) are ready to enable planners to volunteer or make available commercial services in recovering communities recently affected by fire – administered via Local Government.

Planning for risk avoidance

7. Adopt a model decision making framework for approving (new and rebuild) development in areas with extreme bushfire threat – so that any decisions to refuse or prohibit building are transparent and based on statewide principles / criteria.
8. Adopt a set of principles to determine whether refusal / prohibition of development due to extreme bushfire threat extinguishes development expectations to such an extent that voluntary compensation / acquisition measures become a consideration (subject to the means and resourcing being available via State Government).

Stronger strategic planning

9. Elevate the role of strategic planning for bushfire protection by inserting a new object into the EP&A Act -to shift planning culture so that addressing natural hazards upfront becomes 'business as usual' and so that development results in a more resilient community and natural environment.
10. Strengthen the statutory force behind implementation of *Planning for Bushfire Protection* guidelines in strategic planning by: inserting a more explicit Ministerial Direction to ensure hazards are considered before planning proposals pass 'gateway' and before any strategy is adopted (ie Local/ District/ Regional/ SEPP); and refining the Standard Instrument LEP (SILEP) to reference key bushfire planning terms as they relate to permissible uses in zones.
11. Require more explicit consideration of bushfire threat to settlement (based on mapping and evidence) in regional and district strategies (and Local Strategic Planning Statements) – via revised guidance notes.
12. Integrate strategic planning for bushfire with all other natural hazards in an overall 'resilience strategy' as a key input to strategic planning work. This must recognise that hazards need to be identified in a longer-term context of a hotter and drier climate, and the assessment of hazards should be reviewed on an ongoing basis, having regard to ongoing research on event occurrence and intensity.
13. Resource bushfire mapping and assessment studies as input to strategic plans according to new benchmarks (to be prepared) for a 'Strategic Bushfire Study'.
14. Require bushfire hazard consideration in urban greening proposals by reference to PBP guidelines.

15. Ensure that hazard reduction is not a condition of consent that could impact on the ecological values of adjoining public or private property. If the fire hazard reduction necessary to reduce risk to a satisfactory level diminishes natural and cultural values to an unacceptable level then the proposed development should be reconsidered.
16. Undertake a review of biodiversity conservation policy (and offsetting) in recognition that many threatened communities are now at even greater risk post black summer fires – and climate change will increase pressure.

Planning for communities to lead adaptation and management

17. Prepare a model framework (and statutory basis) for community adaptive management plans addressing local fire threat, incorporating obligations for maintenance; ongoing implementation of conditions of consent regarding bushfire protection; community participation in landscape management – including vegetation plantings; participation of aboriginal fire managers; and advice on local priorities for firefighting protection in consultation with RFS.

Stronger role for Aboriginal people and their knowledge

18. Prepare a model framework for Local Government (in collaboration with RFS) engaging with Aboriginal knowledge keepers (if willing) on means to apply Aboriginal fire knowledge and practices to achieve shared objectives for land management. This would be undertaken in the context of a community adaptation and management plan.

PIA Submission to the NSW Independent Bushfire Inquiry

A. PIA POSITION

PIA's position, which is built around strategic settlement planning, strengthening community resilience and capacity building, is summarised as follows:

- Planning provides a critical role to integrate spatial, physical and environmental systems with societal systems that address community strengthening and resilience.
- Planning must continue to improve our settlements and systems so that bushfires are events that can be managed, and that communities are not significantly impacted on an ongoing basis.
- Hazards must be identified in a longer-term context of a hotter and drier climate, and the assessment of hazards should be reviewed on an ongoing basis, having regard to ongoing research on event occurrence and intensity.
- The level of risk in any given location should continue to be understood through the application of the 'risk triangle', that assesses the three interactive elements of hazard, exposure and vulnerability in mapping to ensure that risk to a location is informed by the characteristics of the bushfire hazard itself, exposure of humans, and the level and type of vulnerability.

Our position is informed by the contributions of practicing planners to our national position [Planning in a Changing Climate](#) and NSW position [Climate Change and Biodiversity Loss](#). Both recognise the need for urgent and deep reductions in greenhouse gas emissions as well as the need for complementary adaptation strategies for reducing and managing the risks presented by climate change to human settlement and the natural environment.

B. PLANNING TO 'BUILD BACK BETTER' (ToR 5 & 6)

PIA is concerned that rapid rebuilding is being branded 'building back better'. While rapid recovery is highly desirable it must result in a more resilient community¹ which is housed in settings and structures that respond to the evolving bushfire threat.

The concept of 'build back better' is based on UNISDR work supporting the UN Sendai Framework for Disaster Reduction 2015-30. It is understood to be *'The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase resilience...through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies, and the environment'* (UNISDR 2017¹).

¹ With regard to insurance, risk/potential cost for local, state and federal government, business continuity, for individuals and all aspects of what makes a community resilient.

'Building back better' should mean that resilience to future hazards is improved for housing, property, infrastructure and communities.

This is carried through to the NSW State Emergency and Rescue Management Act and other state based legislation, where definitions of disaster recovery include restoration and enhancement, and consider the full social, economic, environmental and cultural wellbeing of communities, not just rebuilding structures.

Under this definition, rebuilding burnt homes in the same place with higher building standards (eg bushfire attack level) is not automatically 'building back better'². It requires a more holistic consideration of how defensible a home is in relation to its access, location and setting and the resilience of its supporting infrastructure (including community infrastructure).

A useful test would be if rebuilding results in a situation that is more resilient to future shocks; is safer - and does not compromise the safety or wellbeing of others; and does not lead to unacceptable damage to the environment. The planning dimensions of 'building back better' include:

- **Ensuring planning controls are fit for purpose – for this recovery and for future events**
 - They should avoid rebuilding in inappropriate settings - based on community wide master-planning.
 - Ensure development assessment consider criteria on the suitability of the site for the development...particularly considering the risk of natural hazards, safety of emergency management personnel and the economic and social resilience and wellbeing of the wider community.
 - Ensure that hazard reduction around immediate property and around communities are simple, efficient and effective and can be maintained in perpetuity by communities with limited resources - but ensure that property owners can make reasonable modification to the bushfire hazard on their land to enhance the resilience of structures to bushfire.
 - Ensure a community approach is taken wherever possible - and ensure that active bushfire management committees run by Councils, RFS and other agencies are resourced and accountable for decision making and proactive management of risk.
- **Enabling housing to rebuild rapidly where appropriate**
 - Proportionate development pathways for rapid rebuild in suitable areas.
 - Rapid advice on changing bushfire attack levels (and broader site risk assessment).
 - Adequacy and resourcing of a rapid referrals process (via fire services).

² It is acknowledged that if there are multiple reductions in BAL across a settlement then in the aggregate a community would be better protected.

- Early consideration of whether complying development codes can be used to approve development on property with a high bushfire hazard.
- Compliance and enforcement / incentives for bushfire management consent conditions.
- Ensure compliance mechanisms are fit for purpose to manage the ongoing risk from bushfire to communities, recognising that bushfire is highly dependent on on-going landowner actions through the life of a development.
- Development of guidance for rebuilding, landscaping and hazard management, with real life examples, to assist residents and authorities in decision making for rebuilding.
- **Building back better infrastructure**
 - Physical infrastructure affected by fire should be re-evaluated before being rebuilt like for like.
 - Opportunities for alternative and lower risk infrastructure alignments, locations or materials must be available (eg for road/ bridge/ facilities/ fences/ signs).
 - Opportunities for improved access in and out of settlements (not just one road in).
 - Green infrastructure, including vegetated corridors, should incorporate bushfire planning guidance.
 - Budgetary provision should be made not simply for replacement in situ – but taking a longer term value perspective – and negotiating access to funding that respects this proposition.
- **Making flexible provision for temporary crisis and recovery measures**
 - In order to help individuals and families to recover in their communities, it is important that planning controls do not force residents who have lost accommodation and facilities to fire to move away from the district.
 - Planning controls that limit staying in temporary accommodation such as caravans or using storage containers on site should be able to be rapidly suspended – but only as a temporary measure so that vulnerable accommodation does not become entrenched.
 - These provisions should sit within the planning framework, to be invoked following a disaster declaration in relevant areas.

PIA Recommendations : Planning to 'build back better'

1. Establish proportionate development pathways for rapid rebuild in suitable areas.
2. Resource the bushfire planning referral capacity within RFS to ensure timely and senior feedback in proportion to the implicit threat of the development or plan being refused.
3. Resource RFS / expert capacity to provide revised Bushfire Attack Levels (BAL) to properties suffering fire damage to help owners appreciate the rebuild standard going forward.
4. Re-evaluate physical infrastructure affected by fire before being rebuilt like for like – this means building back more resilient infrastructure by making budgetary provision for re-evaluation and re-location.
5. Establish a framework for enabling temporary flexibility for certain planning controls for crisis accommodation, demolition and storage during recovery

6. Ensure systems (ie lists / referrals processes/ simple procurement processes) are ready to assist planners to volunteer or make available commercial services in recovering communities recently affected by fire – administered via Local Government.

C. PLANNING FOR RISK AVOIDANCE IS A VALID PLANNING STRATEGY (ToR 5 & 6)

The experience of Victoria's Black Saturday Bush Fire Royal Commission included a finding that any credible risk based system must have risk 'avoidance' as an available strategy. The key means through which life safety is given effect is to avoid development in areas that are too dangerous to develop.

The implications for planning systems are clear. That where a new development in for example a paper subdivision would result in unacceptable and unavoidable risks to life safety then that development is unsustainable, and rebuilding would not result in a situation that is more resilient to future shocks.

Where this situation occurs then a range of concerns arise that should be addressed according to the following considerations (to be refined):

- **Whether there are practical alternatives** for:
 - the location of a dwelling;
 - the location and standard of access and egress arrangements; and
 - key utilities connections.
- **Whether bushfire fuel can be managed appropriately on site** without impacting other values on site and in the vicinity (eg biodiversity / landscape / heritage).
- **Whether firefighting operations (and evacuation) can be conducted safely** in an emergency.
- **Whether specific measures for the safety of residents can be maintained over time.**
- **Whether the proposal increases the fire threat to other property.**
- **Whether providing for a dwelling is an overriding goal** under the planning scheme and zoning objectives with respect to the site.

Where the answer to these considerations is 'no' – then a case for refusal of development or prohibition of a land use is clear. Isolated and small bush blocks with single access are a particular concern. The above considerations should be the basis of a decision making framework for build / no build.

However, where there is a strong expectation (or entitlement) for development – then compensation / non-compulsory acquisition may become an issue.

This is more likely to be the case if an entitlement is entirely extinguished, and the intended uses of the land under the planning scheme cannot be met. Further investigation is needed to determine at what point this occurs. However, avoiding compensation/acquisition liabilities

should not be an incentive for a council or state agency to approve unsafe development. This is why a sustainable hazard management system needs government to make provision for compensation in certain circumstances.

PIA urges consideration of mechanisms for this to occur and we support recommendations below of the Victorian Black Saturday Royal Commission (2009)ⁱⁱ on this matter.

“The Commission (2009) therefore proposes that the Victoria Planning Provisions relating to bushfire and the CFA guidelines for assessing permit applications in areas of high bushfire risk be amended in order to give priority to protecting human life and to ensure that development does not occur in areas in which either the bushfire risk or the environmental cost of making people safe is too high. The effectiveness of these controls should be reviewed at a later stage to determine whether the objective of substantially limiting the construction of homes in areas of high bushfire risk has been achieved. If not, more prescriptive controls should be introduced.”

The Victorian Royal Commission went further also recommending *“that action be taken to help people move away from those areas where other bushfire risk-mitigation measures are not viable. In particular, the State should develop and implement a voluntary retreat and resettlement strategy—including non-compulsory land acquisition—for existing developments in areas at unacceptably high bushfire risk.”*

The Victorian initiative of applying a ‘restructure overlay’ is worthy of close examination. This involved rearrangement of inappropriate subdivisions. This forced review of potential house locations on vulnerable property and extinguishing some untenable development expectations/rights in extremely high hazard areas.

PIA Recommendations : Planning for risk avoidance

7. Adopt a model decision making framework for approving (new and rebuild) development in areas with extreme bushfire threat – so that any decisions to refuse or prohibit building are transparent and based on statewide principles / criteria.
8. Adopt a set of principles to determine whether refusal / prohibition of development due to extreme bushfire threat extinguishes development expectations to such an extent that voluntary compensation / acquisition measures become a consideration (subject to the means and resourcing being available via State Government).

D. STRONGER STRATEGIC PLANNING FOR BUSHFIRE PROTECTION (ToR 5 & 6)

PIA urges a stronger cultural shift to embed bushfire (and natural hazard risk management generally) in every layer of strategic planning policy and guidance so it becomes ‘business as usual’.

The protection of human life *should always be the overriding objective of our planning controls*. Ticking off measures that protect property and structures does not necessarily result in adequately protecting human life. This has been recognised in updated strategic planning guidelines in every state. The updated NSW Planning for Bushfire Protection (PBP) Guideline (RFS 2020)ⁱⁱⁱ (notes that *“strategic planning must ensure that future land uses are in appropriate locations to minimise the risk to life and property from bush fire attack. Services and infrastructure that facilitate effective suppression of bush fires also need to be provided for at the earliest stages of planning.”*)

Strategic planning principles are supported that relate to the exclusion of inappropriate development in certain bushfire prone areas and the matching of the level of fire hazard information required to support land use decision making at different scales and in different settings. Examples of these are provided in Section 4.1 of PBP (NSW RFS 2020).

Enhanced bushfire planning integration to regional and local strategic plans

- Ensure Regional Plans include provisions to ensure land use decisions are informed by natural hazard and climate change considerations at the earliest phase of thinking about where growth and development should occur.
- Ensure local plans or their equivalent, include provisions as relevant to:
 - Update mapping and identify natural hazards.
 - Ensure the identification of bushfire hazard is based on the best available science; and
 - statutory controls are consistently applied by State Governments through streamlined implementation measures.

Preparation of resilience strategies

- Ensure integration of climate and disaster resilience into all planning policies or instruments.
- Undertake Council (or region) Resilience Strategies (including for infrastructure, settlement patterns, and social, economic, environmental considerations) and /or embed considerations for disaster resilient communities into local growth management strategies.

Adequate resourcing of bushfire planning agency referrals

- Integrated strategic land use and bushfire hazard planning can only occur where there is adequate resourcing of bushfire planners to do the mapping and hazard assessment work. Low capacity in several states have resulted in both property development risks being overlooked in the assessment process and strategic plans not being adequately informed of the nature and severity of bushfire threat.

Strengthening the statutory basis for stronger and clearer implementation of best practice bushfire guidelines

- Bushfire planning guidelines for strategic planning should be given effect in zoning and development decisions via stronger Ministerial Directions, State Policies or their equivalent.

- Enhance the effect of the relevant statutory 'hook' – to give greater weight to the strategic risk assessment / bushfire planning guidelines / overlays - which would improve the consideration of rezoning proposals.
- Determine if objects of each state and territory's planning legislation are fit for purpose and promote the management of natural hazards to create a state/territory that is safer and more resilient to disasters.

Ensuring biodiversity, landscape and heritage values considered

- In addition to human safety and property/livelihood protection – other values must be balanced for the community in relation to biodiversity, landscape and heritage.
- If the fire hazard reduction necessary to reduce risk to a satisfactory level diminishes natural and cultural values to an unacceptable level then the proposed development should be reconsidered.
- The Black Summer fires have been so widespread that a review of biodiversity conservation policy (and offsetting) settings should be undertaken in recognition that so many threatened communities are now at even greater risk – and climate change will increase pressure.
- The habitat changes post fire will make biodiversity studies difficult – this should not be used as an excuse to discount biodiversity values of recently burnt areas. in the context of the significant ecological effects of fire, natural hazards and climate change.
- Biodiversity protection on public land should not be compromised by clearing or other hazard reduction on public land which is specifically to protect assets on adjoining private land.
- The synergies between biodiversity/greener cities policies and bush fire risk also need careful review. Biodiversity and bushfire safety standards need to be considered and reviewed together to ensure that their outcomes align.
- Isabelle Connolly and Catherine Ryland recently published an article that addressed the integration of planning for greener urban landscapes and improved bushfire protection – PIA commends this work ([link](#)) and supports the principles they include to guide urban greening plans, policies and strategies. PIA also acknowledges the insights included in Catherine Ryland's individual submission to the Inquiry.

PIA Recommendations : Stronger strategic planning

9. Elevate the role of strategic planning for bushfire protection by inserting a new object into the EP&A Act -to shift planning culture so that addressing natural hazards upfront becomes 'business as usual' and so that development results in a more resilient community and natural environment.
10. Strengthen the statutory force behind implementation of *Planning for Bushfire Protection* guidelines in strategic planning by: inserting a more explicit Ministerial Direction to ensure hazards are considered before planning proposals pass 'gateway' and before any strategy is adopted (ie Local/ District/ Regional/ SEPP); and refining the Standard Instrument LEP (SILEP) to reference key bushfire planning terms as they relate to permissible uses in zones.

11. Require more explicit consideration of bushfire threat to settlement (based on mapping and evidence) in regional and district strategies (and Local Strategic Planning Statements) – via revised guidance notes.
12. Integrate strategic planning for bushfire with all other natural hazards in an overall 'resilience strategy' as a key input to strategic planning work. This must recognise that hazards need to be identified in a longer-term context of a hotter and drier climate, and the assessment of hazards should be reviewed on an ongoing basis, having regard to ongoing research on event occurrence and intensity.
13. Resource bushfire mapping and assessment studies as input to strategic plans according to new benchmarks (to be prepared) for a 'Strategic Bushfire Study'.
14. Require bushfire hazard consideration in urban greening proposals by reference to PBP guidelines.
15. Ensure hazard reduction is not conditioned that impacts ecological values on adjoining public or private property. If the fire hazard reduction necessary to reduce risk to a satisfactory level diminishes natural and cultural values to an unacceptable level then the proposed development should be reconsidered.
16. Undertake a review of biodiversity conservation policy (and offsetting) in recognition that many threatened communities are now at even greater risk post black summer fires – and climate change will increase pressure.

E. ENABLING COMMUNITIES TO LEAD THEIR ADAPTION AND MANAGEMENT (ToR 7)

As the Victorian Bushfires Royal Commission (2009) noted: *"Even when bushfire safety is embedded in planning and building decisions it can be difficult to ensure that the standards that applied at the time of subdivision or construction are maintained."* There is a need for mechanisms designed to ensure that bushfire safety continues to be a priority for building owners. The Victorian Commission put forward a range of proposals supported by PIA aimed at facilitating continued maintenance of standards—including requiring that vendor statements include information that will help potential buyers understand the bushfire risk of a property before they finalise the purchase".

PIA understands that the planning system is effective at the point at which development is approved with conditions that relate to building standards, design and site layout. The ability to enforce conditions requiring ongoing maintenance of fire management measures is much weaker.

PIA urges the Inquiry to consider a role for community adaptive management plans – linked to the planning system. These could be council facilitated agreements among landowners, residents and fire authorities (particularly local brigades) which set the priority areas to be managed and how they will be defended. They would set out the mutual obligations for maintenance and outline the implicit compact among all parties. PIA would see these as empowering local communities to manage their destiny during and beyond a crisis. These plans could be given status and recognised under the planning system when considering conditions of consent or when considering rezoning proposals.

PIA Recommendations : Planning for communities to lead adaptation and management

17. Prepare a model framework (and statutory basis) for community adaptive management plans addressing local fire threat – incorporating: obligations for maintenance – including ongoing implementation of conditions of consent regarding bushfire protection; community participation in landscape management – including vegetation plantings; participation of aboriginal fire managers; and advice on local priorities for firefighting protection in consultation with RFS.

F. STRONGER ROLE FOR ABORIGINAL PEOPLES AND THEIR KNOWLEDGE (ToR 5)

While the disastrous fire season we have just experienced was a horrific experience for many, fire was and is an integral part of Aboriginal land management. Pascoe (2014) found that ‘almost all early European visitors to Australia remarked on the frequency of small-scale burning’ and that ‘the crucial difference between the use of fire prior to the colonial period and since, is the intensity of fire and available fuel loads’. He concludes that the Aboriginal approach to fire works on five principles:

- The majority of the agricultural lands were fired on a rotating mosaic which controlled intensity and allowed plants and animals to survive in refuges.
- The time of the year when fires were lit depended on the type of country to be burnt and the condition of the bush at the time.
- The prevailing weather was crucial to the timing of the burn.
- Neighbouring clans were advised of all fire activity.
- The growing season of particular plants was avoided at all costs.

Gammage also argues convincingly, with extensive research, that aboriginals use of fire made the Australian landscape up to 1788, and it was very different to what it is today. His argument is built on 3 key tenets:

- Australian plants need fire – knowing how and when and how much to burn is an art and a science.
- Grazing animals can then be shepherded using fire. Only in Australia could this be done, due to no real predators apart from humans.
- There was no real wilderness. Just like in Britain, the landscape was managed, with rare pockets untouched by humans. Aboriginal law compelled people to care for country.

While the development of infrastructure, houses, fences, outbuildings, power lines and roads might complicate the adoption of aboriginal methods of fire management, they do not necessarily prevent it. PIA agrees with Pascoe (2014), ‘We just have to think differently about country’. He makes the point that acknowledging ‘the history of the country and the social, agricultural and philosophical achievements of the Aboriginal and Torres Strait Islander peoples does not put the economy at risk’. Indeed, we have much to learn from the Aboriginal and Torres

Strait Islander peoples, along with farmers and others that live on the land today. PIA therefore recommends that we listen to the voices of the Aboriginal peoples as to how we should go about managing country, and especially when to burn and not to burn. PIA also recommends that:

- Indigenous approaches to land management across different landscapes be seen as a high priority in the next National Environmental Science Program (NESP2).
- State and local governments actively engage with Aboriginal and Torres Strait Islander peoples in preparing their fire management plans and enable them to participate in the implementation of those plans with and as the community.
- State and Local Governments seek and apply Aboriginal fire management knowledge in the development of strategic land use plans.
- The impact of the bushfires on the Indigenous peoples living in the affected areas be examined by the Inquiry, including the recognition of their diverse and extensive rights, interests and responsibilities in those areas, and how recovery measures need to be inclusive of and tailored to meeting the needs of Traditional Owners.³
- Address cultural burns in the *Rural Fires Act 1997* – This Act is currently silent on indigenous cultural burns and the role they play in hazard reduction. Cultural burns can fall within the definition of ‘bush fire hazard reduction work’ as defined under the *Rural Fires Act 1997*⁴. Cultural Burns are more than an activity to reduce fuel load. Cultural burns are also an activity with a deep cultural meaning that enhances connection to the land and promotes environmental health. A separate definition for a cultural burn may be warranted under the *Rural Fires Act* and a cultural burn could also be included under the definition of fire hazard reduction work.
- Given the documented success of indigenous cultural burns (Firesticks 2020) in reducing fuel loads, promoting less fire loving plants and environmental health, following typically ‘cool burns’, local and state government land managers should include cultural burning in reserve plans of management and Bush Fire Risk Management Plans where possible.

Attachment B considers the role for indigenous communities and their knowledge of fire management in greater depth.

PIA Recommendations : Stronger role for indigenous people and their knowledge

18. Prepare a model framework for Local Government (in collaboration with RFS) engaging with Aboriginal knowledge keepers (if willing) on means to apply Aboriginal fire knowledge and practices to achieve shared objectives for land management.

³ The term Traditional Owner is used in this submission to include a wide range of legal rights and interests in land, including cultural heritage, legal land interests recognised by State, Commonwealth or common law, and others who have rights and interests according to Aboriginal law that may not be formally recognised by any Government.

⁴ Bush fire hazard reduction work authorised by the Rural Fires Act 1997 may be carried out on any land without development consent. Hazard reduction certificates are required before any hazard reduction burn occurs, following an assessment under the Bush Fire Environmental Assessment Code.

ATTACHMENT A: Terms of Reference - NSW Independent Inquiry

The Inquiry is to consider, and report to the Premier on, the following matters.

1. The causes of, and factors contributing to, the frequency, intensity, timing and location of, bushfires in NSW in the 2019-20 bushfire season, including consideration of any role of weather, drought, climate change, fuel loads and human activity.
2. The preparation and planning by agencies, government, other entities and the community for bushfires in NSW, including current laws, practices and strategies, and building standards and their application and effect.
3. Responses to bushfires, particularly measures to control the spread of the fires and to protect life, property and the environment, including:
 - immediate management, including the issuing of public warnings
 - resourcing, coordination and deployment
 - equipment and communication systems.
4. Any other matters that the inquiry deems appropriate in relation to bushfires. And to make recommendations arising from the Inquiry as considered appropriate, including on:
- 5. Preparation and planning for future bushfire threats and risks. other hazard reduction, zoning, and any appropriate use of indigenous practices.**
- 6. Land use planning and management and building standards, including appropriate clearing and**
- 7. Appropriate action to adapt to future bushfire risks to communities and ecosystems.**
8. Emergency responses to bushfires, including overall human and capital resourcing.
9. Coordination and collaboration by the NSW Government with the Australian Government, other state and territory governments and local governments.
10. Safety of first responders.
11. Public communication and advice systems and strategies.

(NB. The PIA NSW Submission focuses on the bold highlighted items 5,6 and 7)

ATTACHMENT B: Role for indigenous peoples and their knowledge of fire management – in depth

The Terms of Reference require the NSW Inquiry to have regard to, among other matters, ‘...any appropriate use of indigenous practices.’ (ToR No.6).

While PIA is unable to speak directly for Aboriginal and Torres Strait Islander peoples and their Indigenous ecological knowledge (IEK) and land management practices, we do want to say a few words in support of a better understanding and application of their knowledge of land management in NSW and throughout Australia.

The Aboriginal and Torres Strait Islander peoples of Australia have owned and occupied these lands sustainably for over 65,000 years (Yunupingu, 1997:1), and in SE Australia for at least 25,000 years. They are continuing to do so (albeit hampered by our intrusion). In recent decades, many non-academic scholars have concluded that they have the oldest living culture on Earth (Flood, 2006:133); they have the oldest continuing system of land tenure in the world (Reynolds, 1999:217); and, in all likelihood, they also have the oldest continuing system of land use planning and management in the world (Wensing, 2019:2).

The Aboriginal and Torres Strait Islander peoples of Australia have always had a crucial and legitimate stake in the use and occupancy of their traditional lands for many thousands of years. Before the British arrived to colonise Australia, the Aboriginal peoples of Australia developed and applied three important principles in caring for their ancestral ‘Country’. The three principles are:

- a deep understanding of the exhaustibility of resources relative to the level of use,
- sensitivity to long term ecological damage; and
- respect for the form in which subsequent generations will receive the land. These ideas have been with them for thousands of years (Wensing, 2019:159).

As Tom Trevorrow, a Ngarrindjeri Elder, states in the Murray Darling Basin Plan:

‘Our traditional management plan was: don’t be greedy, don’t take more than you need and respect everything around you. That’s the management plan – it’s such a simple management plan, but so hard for people to carry out’ (Trevorrow, 2010a).

And as Irene Watson, a Tanganekald, Meintangk Boandik First Nations People of the Coorong and the south east of South Australia, states:

‘We live as a part of the natural world; we are in the natural world. The natural world is us. We take no more from the environment than is necessary to sustain life; we nurture ruwe⁵ as we do our self.’ (I. Watson, 2015:15)

And:

⁵ I. Watson (2015:10, note 23): ‘Ruwe means the territories of First Nations Peoples’ in Ngarrindjeri language.

'The First Nations relationship to ruwe was not recognised, understood or respected by the muldarbi when they first arrived on our shores, so the colonisers lost the opportunity to learn about another way, an ancient way, a way their own ancestors had perhaps known at a time in their own history but from which they had departed' (I. Watson, 2015:35).

These statements by Tom Trevor and Irene Watson reflect a deeper understanding of a duty and 'the necessity of being responsible for something greater than oneself, that is, the earth itself' (Nichols, 2017:11).

The principles are also reflected by Bill Gammage in his book, *'The Biggest Estate on Earth'* (2011:4)

'Ensure that all life flourishes. Make plants and animals abundant, convenient and predictable. Think universal, act local.' (Gammage, 2011:4).

Gammage (2011: 4,5) also notes that the rules imposed a strict ecological discipline on every person and that local knowledge was crucial.

Gammage (2002) maintains that fire was used:

'To shape the land... It was a major totem, a friend. People knew when to use it and when not to. They knew if they released it according to universal law and local practice it would do what they wanted. If it did not then they, not it, had offended... Like songlines, fire unified Australia. It locked the landscape into a long-term widespread patterns, because neighbours obeyed the same law, and coordinated their burning or non-burning.'

Bruce Pascoe in his book, *Dark Emu* (2014) writes that the use of fire has always had a central place in Australia. While the disastrous fire season we have just experienced was a horrific experience for many, fire was an integral part of Aboriginal land management. Pascoe found that 'almost all early European visitors to Australia remarked on the frequency of small-scale burning' (2014:116) and that 'the crucial difference between the use of fire prior to the colonial period and since, is the intensity of fire and available fuel loads' (2014:118).

Pascoe (2014:118) concludes that the Aboriginal approach to fire works on five principles:

1. The majority of the agricultural lands were fired on a rotating mosaic which controlled intensity and allowed plants and animals to survive in refuges.
2. The time of the year when fires were lit depended on the type of country to be burnt and the condition of the bush at the time.
3. The prevailing weather was crucial to the timing of the burn.
4. Neighbouring clans were advised of all fire activity.
5. The growing season of particular plants was avoided at all costs.

Pascoe (2014:118) maintains this was evident in advice given by Aboriginal people to Europeans 'when it became obvious Europeans were using fire too infrequently and in the wrong conditions.'

While the development of infrastructure, houses, fences, outbuildings, power lines and roads might complicate the adoption of simpler methods of regular burning, they do not necessarily prevent it. PIA agrees with Pascoe (2014:123), 'We just have to think differently about country'.

Pascoe (2014:155) makes the point that acknowledging 'the history of the country and the social, agricultural and philosophical achievements of the Aboriginal and Torres Strait Islander peoples does not put the economy at risk'. Indeed, we have much to learn from the Aboriginal and Torres Strait Islander peoples.

PIA therefore recommends that we listen to the voices of the Aboriginal peoples as to how we should go about managing country, and especially when to burn and not to burn. As Victor Steffensen, a descendent of the Tagalaka people from the Gulf Country of north Queensland, states in his recent book '*Fire Country*' (2020:94) 'Aboriginal people are a sharing and caring race with values that are not based on fear, domination and greed. Most Aboriginal people want to help, because it is a beautiful part of resilience within all Indigenous cultures'.

PIA recognises that the Indigenous peoples of Australia have also been significantly impacted in the fire affected areas, as documented by Williamson *et al* (2020). Aboriginal⁶ peoples hold significant legal rights and interests in the affected areas. As Williamson *et al* (2020:9) notes, this includes both Aboriginal peoples who have some rights and interests in land recognised by state, Commonwealth or common law, and others who have rights and interests according to Aboriginal law that are not formally recognised by any government. PIA acknowledges that the entirety of the fire-affected area is Country belonging to Aboriginal peoples according to Indigenous law.

Unfortunately, past inquiries into major bushfire events did not include adequate consideration of the impact of the fires on Aboriginal peoples and their rights and interests and they were excluded from key forums and decision-making roles about recovery, even though they held distinct legal responsibilities in the affected areas. This continues the torment of Indigenous powerlessness, as the framers of the Uluru Statement from the Heart put it. We agree with Williamson *et al*'s (2020:16-17) conclusions that this shortcoming needs to be urgently addressed by this Inquiry and the National Royal Commission.

PIA recommends the following resources:

- This edition of Insight with Jenny Brockie on SBS in 2014 (https://www.youtube.com/watch?time_continue=128&v=hqkj1_igY&feature=emb_title) in which she interviews Victor Steffensen, a descendent of the Tagalaka people from the Gulf Country of north Queensland.
- This article on 5 January 2020 by Lorena Allum, a descendant of the Gamilaraay and Yawalaraay nations of north west NSW and the Guardian's Indigenous affairs editor in the Guardian (<https://www.theguardian.com/commentisfree/2020/jan/06/for-first-nations-people-the-bushfires-bring-a-particular-grief-burning-what-makes-us-who-we-are>) in

⁶ The term 'Aboriginal peoples' is used here, reflecting the preference of many Aboriginal people in the fire-affected areas.

which Ms Allum wrote "Our memories, our sacred places, we are losing what forever connects us to a place in the landscape. But we can help."

- And this on the ABC South Coast of NSW on 18 September 2018: Indigenous fire methods protect land before and after the Tathra bushfire (<https://www.abc.net.au/news/2018-09-18/indigenous-burning-before-and-after-tathra-bushfire/10258140>).
- Australian Story, 13 April 2020: 'Fighting fire with fire. Passed on through the generations, could Indigenous cultural burning save Australia's landscape from another catastrophic bushfire season?' Video version here: <https://www.abc.net.au/austory/fighting-fire-with-fire/12134242>. And a transcript here: <https://www.abc.net.au/news/2020-04-13/how-victor-steffensen-is-fighting-fire-with-fire/11866478>
- Williamson, B, Markham, F & Weir, JK (2020) *Aboriginal Peoples and the response to the 2019-2020 bushfires*, Working Paper No. 134/2020, Centre for Aboriginal Economic Policy Research, ANU.
https://caepr.cass.anu.edu.au/sites/default/files/docs/2020/3/CAEPR_WP_no_134_2020_Williamson_Markham_Weir.pdf

PIA also recommends that:

- Indigenous approaches to land management, including the use of fire and when to burn and not to burn on different types of landscapes across Australia, be seen as a high priority in future research in NSW as well as the next iteration of the National Environmental Science Program (NESP2).
- State and local governments actively engage with Aboriginal and Torres Strait Islander peoples in preparing their fire management plans and enable them to participate in the implementation of those plans.

The impact of the bushfires on the Indigenous peoples living in the affected areas be examined by the Inquiry, including the recognition of their diverse and extensive rights, interests and responsibilities in those areas, and how recovery measures need to be inclusive of and tailored to meeting the needs of Traditional Owners.

We must learn to look after country, the way Aboriginal and Torres Strait Islander people did for many thousands of years before we, the colonisers, arrived. This will require some big changes to the way we manage country, but surely, the damage wrecked upon Australia in the summer of 2019-20 has taught us that we must make some fundamental changes.

PIA acknowledges Ed Wensing and Ian Wood Bradley for their contributions to this section.

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