

REPORT ON PROCEEDINGS BEFORE

**PORTFOLIO COMMITTEE NO. 7 - PLANNING AND
ENVIRONMENT**

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

UNCORRECTED

Jubilee Room, Parliament House, Sydney on Friday 8 March 2024

The Committee met at 9:20.

PRESENT

Ms Sue Higginson(Chair)

The Hon. Mark Buttigieg

The Hon. Anthony D'Adam

The Hon. Scott Farlow

The Hon. Aileen MacDonald

The Hon. Peter Primrose

PRESENT VIA VIDEOCONFERENCE

The Hon. John Ruddick (Deputy Chair)

The CHAIR: Welcome to the first hearing of the Committee's inquiry into the planning system and the impacts of climate change on the environment and communities. I acknowledge the Gadigal people of the Eora nation, the traditional custodians of the lands on which we are meeting today. I pay my respects to Elders past and present and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of New South Wales. I also acknowledge and pay my respects to any Aboriginal and Torres Strait Islander people joining us today.

I ask everyone in the room to please turn their mobile phones to silent. Parliamentary privilege applies to witnesses in relation to the evidence they give today. However, it does not apply to what witnesses say outside of the hearing. I urge witnesses to be careful about making comments to the media or to others after completing their evidence. In addition, the Legislative Council has adopted rules to provide procedural fairness for inquiry participants. I encourage Committee members and witnesses to be mindful of these procedures.

Mr STEPHEN HARTLEY, Executive Director, Resilience and Urban Sustainability, NSW Department of Planning, Housing and Infrastructure, affirmed and examined

Mr CLAY PRESHAW, Executive Director, Energy, Resources and Industry Assessments, NSW Department of Planning, Housing and Infrastructure, affirmed and examined

Mr MATTHEW RILEY, Director, Climate and Atmospheric Science, Science Economics and Insights Division, Department of Climate Change, Energy, the Environment and Water, affirmed and examined

Mr SEAN SLOAN, Acting Director General, Department of Primary Industries, Department of Regional NSW, affirmed and examined

Ms KATE LORIMER-WARD, Deputy Director General, Department of Primary Industries Agriculture, Department of Regional NSW, affirmed and examined

The CHAIR: To each witness, welcome and thank you very much for making the time to give evidence here today. Would any of you like to begin by making a short opening statement?

STEPHEN HARTLEY: The department welcomed the opportunity to provide a submission to the inquiry. The whole-of-government submission provides information about how the planning system is helping prepare for, manage and mitigate the impacts of climate change on communities, infrastructure and environment. It also identifies inter-agency coordination and collaboration on projects and programs to increase resilience to climate change. There are a number of agencies across government that provided input to that submission. Some of us are represented here today and are looking forward to the questions. The planning system's role, in terms of the effects of climate change, is about how to manage and support communities, industry and environment through the change to ensure natural disasters and climate change are addressed strategically and equitably. The planning system is obviously also playing a really important role at the moment in addressing the current housing crisis, ensuring more social and affordable housing is built.

Committee members would have seen the NSW Reconstruction Authority release the State's first disaster mitigation plan on 23 February this year. That was referenced in the submission but obviously wasn't released at that time. The State Disaster Mitigation Plan, or SDMP, is a critical document for the whole of government for responding to natural disasters and climate change. It includes 37 priority actions to reduce New South Wales' risk from future disasters. Seven of those specifically will be delivered jointly with the department of planning. The EP&A Act, or Environmental Planning and Assessment Act, also provides us an overarching framework. A lot of what we talk to today is directed by that Act. The Act includes multiple objectives to promote the social and economic welfare of the community, a better environment, facilitate ecologically sustainable development and protect the environment, amongst other matters. It's core to a lot of what we will discuss today about the planning strategies, policies and guidance, and the way that merit-based decisions are made.

The planning system, working with the Reconstruction Authority, has a really important role, as called out by the SDMP. It has a very important role. It identifies the SDMP and identifies opportunities at both a strategic planning level and the role of good information as being a key part of considering the impacts and responding to climate change. Strategic planning offers the opportunity to embed multi-hazard risk consideration up-front in the planning process. It helps us identify land use tensions, test different scenarios and plan for mitigation management strategies. The SDMP, the NSW Reconstruction Authority and DPHI will also, as called out by that document, be working towards the definition of "acceptable risk", which is a critical component of merit-based making decisions. The NSW Common Planning Assumptions also play a key role in that space, providing the information, assets and base for testing those future scenarios. I note there have been over 230 submissions to the inquiry. Thank you for having us. We look forward to answering your questions.

SEAN SLOAN: First of all, I'd like to acknowledge all of the women across New South Wales on International Women's Day. Thanks for the invitation to participate in today's hearing on this critical issue. To ensure the ongoing, sustainable supply of food and fibre in New South Wales, the Department of Primary Industries aims to maximise outcomes for agriculture, fisheries and forestry, the communities that those industries support, and the resources they rely on. DPI's approach is underpinned by consideration of impacts of the planning system and climate change because New South Wales primary industries, which collectively contribute more than \$22 billion to the New South Wales economy, are particularly vulnerable to climate change and the loss of agricultural land, as well as changes in the suitability of available aquatic habitats for important fish species.

In the last decade alone, our farmers, fishers, aquaculture operators and forest industries and their communities have endured extreme drought, flooding and bushfires. These extreme weather events have an immeasurable impact on the productivity, profitability and sustainability of their businesses, as well as on their mental health. At the same time, primary industries are increasingly competing for use of land and sea against

renewable energy developments and urban encroachment. To mitigate this, DPI has a range of measures in place. From a land use planning perspective, DPI works closely across government to provide advice to planning authorities and industry groups, to develop policy and influence our partner agencies' policy frameworks, to foster the New South Wales agriculture industry to grow in a sustainable and informed manner.

The work of the NSW Agriculture Commissioner has highlighted the need for land use planning to be an ongoing focus for government, particularly in relation to the intensive agriculture and horticulture sectors. This is important in the context of maintaining food security as increasing pressures, such as land use conflict and seasonal volatility in food-producing areas, ultimately increase the risk of food and fibre production across the State. To this end, I draw the Committee's attention to the report prepared in 2021 by the NSW Agriculture Commissioner, *Improving the Prospects for Agriculture and Regional Australia in the NSW Planning System*. DPI is currently mapping State significant agricultural land, including land that has access to a reliable water supply. This will help the State understand what key industries are at risk and vulnerable as climate continues to change.

Agricultural research—DPI has a research portfolio which has evolved against a backdrop of our strategic goals of achieving carbon neutrality and climate resilience, sustainable resources and productive landscapes, and economic growth. This research occurs across 28 research stations, which are situated in a variety of agri-ecological zones, thereby ensuring we can test our research in a range of climates and production zones. DPI's climate vulnerability assessment project has modelled future climate impacts for 28 commodities and 14 biosecurity risks, covering plantation, forestry, horticulture and viticulture, broadacre cropping and extensive livestock sectors up to 2050, as well as a range of fish species.

DPI will use these findings to contribute to national and State climate risk assessments and related planning processes, including the New South Wales climate adaptation action plan. This assessment will be key to partnering with industry to invest in R&D that will identify and develop new approaches to adaptation that build resilience and support reliable food and fibre production into the future. The assessment is also extremely important in informing future land use planning to understand where industries may need to be located in the future, because the level of change and lack of adaptation options means that relocation may be the most viable option in some instances. We also have climate-focused agricultural research projects underway in low methane beef, drought resilient crops, low rainfall pastures, agri-tech, adaptation and more.

Meanwhile, in fisheries, DPI is working to conserve our marine freshwater biodiversity as it is a fundamental part of keeping the freshwater coasts, estuaries and oceans of New South Wales healthy and productive in the future. Much of this work falls under the Marine Estate Management Strategy and includes dedicated research focused on climate change vulnerabilities, impacts and adaptation for important fish species and habitats such as kelp; climate vulnerability assessments for a range of marine species to inform future management and adaptation options; a New South Wales marine heatwave plan, the first of its kind in Australia, noting the east coast experience to marine heatwave this summer; the facilitating climate change adaptation in New South Wales marine parks project with an initial focus on the Solitary Islands Marine Park; and research on blue carbon opportunities in flood-prone areas in the Northern Rivers, including a blue carbon demonstration site at Duck Creek.

Changes in climate may render some of the current aquaculture areas unsuitable to aquaculture production and increase the likelihood of extreme events. It is important for the long term that flexibility is introduced in the planning system whereby priority oyster aquaculture areas and marine areas can adapt and move as conditions change. In forestry, a number of issues will increasingly need to be considered in the planning framework: the suitability of land for plantation forests in the future, noting both DPI's recent Climate Vulnerability Assessment of the forestry industry and the Government's commitment to investigate the expansion of plantation forestry; how bushfire risks are managed in forestry; how carbon markets change in the future and the opportunities that forests offer as natural carbon sinks.

In relation to biosecurity, incursions pose one of the most significant threats to New South Wales' primary industries and the communities they support, and this is compounded by climate change—for example, changes in temperature expanding the range of suitability of land and aquatic environments in which various pest species can establish and disease outbreaks can occur. This will need ongoing consideration from government, especially if agricultural land is repurposed as changes to the type of activity in agricultural land are likely to prompt increased biosecurity.

In times of severe weather events such as bushfire and floods, New South Wales' DPI is responsible for coordinating the agricultural and animal services functional area in supporting the NSW State Emergency Service. The DPI also plays a key role with LLS in helping farmers prepare for and respond to drought. From a planning perspective, access to water and stock refuge areas should continue to be considered. Extreme weather can lead

to issues such as native fish death events as we have seen out at Menindee, livestock mortalities, food supply chain shortages and coastal flood plain drainage pollution. DPI will continue to work with other government agencies to ensure we are prepared as best we can for adverse weather events to ensure the risks are mitigated as much as possible.

The CHAIR: I have a few questions. Clearly we've undertaken quite a bit of work and there's modelling happening. Could one of you set down what are the parameters that the models are working around at the moment? What are the inputs in terms of predictions and climate? I think that we've had some input around—we've got the Paris Agreement that we're committed to, we've now got the Climate Change (Net Zero Future) Act. What can we get from the departments about what inputs you've put into the modelling?

MATTHEW RILEY: Thanks, Chair. I might take that question and just ask for some clarification. Are you asking about the future climate modelling, so modelling of climate projections, so how the climate may change? Or are you asking about the greenhouse gas emissions projections, or both?

The CHAIR: Both, thank you.

MATTHEW RILEY: I might just—

The CHAIR: And particularly whether what you're working on is consistent across all of government.

MATTHEW RILEY: I might actually start with the consistency. We are working towards consistency. My colleague Mr Hartley mentioned the Common Planning Assumptions Group. This is a whole-of-government group that reports to the Secretaries Board. Its intent is to ensure that there is common use of data, advice and guidelines across government when it comes to strategic planning. A key component of the Common Planning Assumptions Group is our regional climate modelling. New South Wales leads a project called the NSW and Australian Regional Climate Modelling project. It's a project that is a partnership between the New South Wales, ACT, South Australian, Western Australian and Victorian governments, with support from Murdoch University, the uni of New South Wales and the national super computer at NCI in Canberra.

The project is a long-running project. It has been running since at least 2010. Its aim is to provide the best information that we can at the scales appropriate for us to take informed decisions on future climate changes. It's what's called a dynamically down-scaled model, so it is a very big undertaking. Indeed, NARCLIM—that climate modelling project—is the single biggest project to ever run on Australia's biggest super computer. It's also the most comprehensive regional climate modelling project anywhere in the world. We focus on three scenarios. The scenarios that we use are what's called—around the SSPs, the shared socioeconomic pathways. The first scenario that we model is SSP1-2.6. This is a scenario that is broadly aligned with reaching and achieving our Paris commitments. It actually leads us to, around about, globally, a 1.8-degree Celsius warming; so it's not the 1.5 target but it's below the 2-degree target. The model includes that as one of the scenarios. It models out that scenario through to 2100 and provides information on future climate at four-kilometres resolution. This is a substantial piece of work, as I mentioned. It is likely the most comprehensive regional climate modelling project anywhere in the world.

Importantly, for that scenario, SSP1-2.6, and the other scenarios, we do not do one model. We know that many models show different pathways in the future. What we do is we take the global climate models, we assess how well they perform in Australia—and in particular over south-eastern Australia—and we choose the best of those models. We then take those models, five of them, and we run them through two regional climate models. For each scenario that I mentioned, and I started with SSP1-2.6, we have 10 possible future climates to inform our planning decisions. This is important because no one model can we have any degree of certainty will be the future climate, so we must take a risk-based approach looking at a range of possible future outcomes.

With that in mind, we also don't model just that single scenario. We take other scenarios as well. Bookending that low scenario, the Paris-aligned scenario, is SSP3-7.0—that's shared socioeconomic pathway 3, 7.0. The best way to describe that is that's almost a worst-case scenario. What I mean by that is it's a lower scenario in terms of global emissions than previous work, because it takes into account the nationally determined contributions that countries have made under the UNFCCC. We know, and the current literature tells us, that we will not be on a pathway to seven- or eight-degrees warming, which we have previously seen under other scenarios. We are more likely, at the worst case, to be on a pathway somewhere like a four-degree warming. That's if we do nothing more than achieve our current nationally determined contributions.

The CHAIR: It's fair to say four degrees is your worst case that's in there?

MATTHEW RILEY: Yes.

The CHAIR: I'm probably simplifying it a bit too much, but—

MATTHEW RILEY: Yes, Chair, that's fair to say. That's the high-end scenario, our worst-case scenario. I should note that the way we choose our models, even in each of these scenarios, we choose a worst case from the global climate models. We look at the global climate models and we look at how well they perform. We choose a range of models—some that are hotter futures within that single scenario, drier futures; some that are still warming futures but perhaps wetter futures—and we choose a mix of those. Within each of the scenarios there is a worst case. Within our models for SSP3-7.0, we will have some models that are projecting global warming that is beyond four degrees Celsius.

In between those two scenarios, we are also modelling a third scenario. This is SSP2-4.5. That's best to be described as a middle-of-the-road scenario. We don't quite meet our Paris targets, but we do better than the current nationally determined contributions. That puts us on track for global warming of around about 2½ to 3 degrees. They are the three climate scenarios that we model as part of NARCLiM—the New South Wales Government's regional climate modelling. That modelling is complete for two of the scenarios and is already being used to inform work within government. We will be completing the third scenario, the middle-of-the-road scenario, towards the end of this year.

Importantly, those regional climate models provide us a whole range of information, not just changes in temperature or changes in rainfall; they provide us information on changes in forest fire weather—so the Forest Fire Danger Index—changes in extremes of temperature and precipitation and, importantly, as my colleagues outlined earlier in their introductions while talking about extreme weather events, provide us more information on thunderstorms and extreme precipitation and wind events. It's quite comprehensive work. It's generating somewhere close to 20 petabytes of data, which is, again, likely to be the single biggest project in terms of data ever run in Australia. It will give us the information that we need to be able to make informed, strategic planning decisions. That's on the regional climate modelling side. That's the future climate, Chair.

In response to your question about emissions, within the Department of Climate Change, Energy, the Environment and Water, we undertake statewide and economy-wide emissions modelling to inform the Government—its policies, its programs—and will inform the Net Zero Commission when it is established. The modelling models across all sectors out to 2050. We take a sector-by-sector approach in that modelling. For example, we will look at the electricity sector first off. There is great change going on in the electricity sector at the moment. Because of that change, we have elected to, within the modelling at the moment, focus on electricity sector market modelling from AEMO—the Australian Energy Market Operator—and its IIO report. This report provides a future scenario that all of the electricity market participants are using as their baseline scenario. That underpins our modelling for the electricity sector.

What that does do is that puts us in a position where we are modelling the change in electricity generation out to 2050. We are seeing quite a substantial change in the make-up of the generation fleet over that time, including the exiting of coal-fired generation and the entrance of more renewable generation. I do note that that modelling was completed towards the middle of last year. As with all modelling, Chair, almost as soon as it's completed, it's out of date. The modelling is yet to incorporate initiatives such as the Capacity Investment Scheme or other Commonwealth and bilateral agreements that are designed to help us achieve the targets set for renewable energy.

If I move on from the electricity sector and into other sectors, we take a facility-by-facility approach in a number of sectors. I'll start with coalmining. We model out fugitive emissions from coalmining—and, indeed, all emissions from coalmining—on a mine-by-mine basis within New South Wales. We assess the methane contents of the mines, both underground and open-cut, we look at their past historical performance and the data they have reported under the National Greenhouse and Energy Reporting scheme, whose data we share with the Commonwealth, and we map out emissions intensity of those mining operations. We then look at their future mine plans, what they are approved to do and also what they may elect to seek approval to do, and we model out emissions from those mines. That's included in our base case emissions modelling scenario.

On top of that scenario, we have now put in place a modelling of what those mines may do to achieve their obligations under the Commonwealth safeguard mechanism and their declining baselines. We have a very good understanding of the greenhouse gas emissions profiles at coalmines in New South Wales. I think actually the Government probably has a better understanding of the sector as a whole than any individual working within the sector because we look at all mines and all operations.

Staying with coalmining for a moment but moving away to another part of coalmining emissions, it's the stationary energy emissions from coalmining. Emissions from coalmining fall into two categories: There are the fugitive emissions and then there are the emissions that occur from the operations of the fleet, for example, or the extraction of the coal. We model out how that may change in the future. That comes under our stationary energy

modelling. Stationary energy modelling, which is different from electricity—they are separate sectors—looks at the use of stationary energy in industrial facilities.

Once again, we model that out on a facility-by-facility basis. Think about energy used at Port Kembla at the steelworks or energy used at a cement batching plant, for example. We model that out on a facility-by-facility basis. We don't take scenario approaches within these facilities. Essentially, what we do is we look at what they would achieve under current practice, which we call our business as usual projections, and then we look at what they are likely to achieve based on all of the policies and all of the programs that the New South Wales Government has put in place to try to assist them to reduce their emissions—things such as the Net Zero Industry and Innovation program.

Moving on to the other sectors, we also model out emissions from waste and waste facilities. Again, we take an individual facility basis to model those out. We model each of the waste facilities. Much of that is driven by per capita consumption, so it's a little easier to model in that sector but it's also a smaller contribution. Finally, I'll focus a little bit on the land-based sectors, so agriculture and what's called land use, land use change and forestry—LULUCF. For LULUCF, we work closely with the Commonwealth to model out future projections based on the National Carbon Accounting System—NCAS. We look at what we project to be the change in forest cover over the next 10 years working with Commonwealth data, which also incorporates the inclusion of increased carbon forestry as a result of the safeguard mechanism. Beyond 2030 we use our own internal modelling within the New South Wales Government—again, based on NCAS—to try to assess the changes that we may see in the land sector over that period of time. As you can imagine, that is a very challenging task because of interannual climate variability and a range of other areas.

Finally, in agriculture, we look at agriculture and we tend to focus on a commodity-by-commodity perspective, but not in great detail. We tend to focus on, for instance, livestock and livestock emissions based on the type of livestock—cattle, sheep, for example—and then we look at emissions from cropping. Intensive livestock and grazing livestock, sorry, I should say, on the livestock side of things. And then we model that in the future. We take a very conservative approach with the agriculture sector. It's going to be a very difficult to abate sector for agriculture. We model out the future agriculture emissions based primarily on what we think will be global trends in commodities. That's a broad overview of how we undertake the modelling. I'm sorry if I gave you a bit too much detail.

The CHAIR: No, it's great. It's really good to get an understanding of what exactly it is you are working with and what's feeding into it all. Seeing it at that big level and where we are getting all the inputs, do you think that the current statutory and regulatory instruments that we have that ultimately are the drivers or the place where all of this intelligence goes through to make things work and to allow us to plan for a future that's not more uncomfortable than what it's going to be—are those instruments the right instruments? Have we got too many? Do we need more? Is that information coming through those pipelines into where decisions are being made?

I'm not just referring to those big decisions but all the decisions we're making that are impacting the built and the natural environment and the social environment every day. I know it's probably a big question, but are the instruments right? Is it coming through?

MATTHEW RILEY: I might pass to my colleague Mr Hartley to talk about the instruments. But what I would say, before we go to Mr Hartley, is that through the Common Planning Assumptions Group we are really working very hard to ensure that the best quality information is available to be used through those instruments. I think that is a big step to ensure we are trying to use a common set of data to inform decision-making and to ensure that, whichever instrument is being used, those decisions are being guided using the same information that perhaps another instrument may be utilised for. But I'll pass to Mr Hartley to comment on the instrument.

The CHAIR: Sorry, I may have missed it, but what is the Common Planning Assumptions Group? Who is it, I suppose, or where is it and how does it function?

MATTHEW RILEY: I might take that. The Common Planning Assumptions Group is a group that reports to the Secretaries Board, so it's a within-government group. It has representatives from all of the major departmental groups—the former clusters, for want of a better term. For instance, it has representatives from DPHI; it also has representatives from my department, the Department of Climate Change, Energy, the Environment and Water; from Treasury; from Health; from Transport; DPI Agriculture, Department of Regional NSW; and the Department of Communities and Justice. It covers the broad range of activities that the Government undertakes.

It was established a number of years ago when the government of the time elected to undertake the first coordinated strategic planning assessment in New South Wales for many, many years, bringing together the State Infrastructure Strategy, the Future Transport Strategy, the plan for Greater Sydney and other supporting regional

plans. At that time, the Government made a decision that rather than different groups who were using perhaps different sources of data—for example, at the time, Infrastructure and Planning were using different population projections, or Transport and Planning were using different population projections. That obviously inhibited our attempt to provide consistency. So, within government, a decision was made to bring together the Common Planning Assumptions Group to work towards the consistent application of data and guidelines through the planning processes.

The group has operated now for, I think, seven years. As I said, it's been refreshed recently and reports directly to the Secretaries Board; it used to previously report through the Department of Premier and Cabinet. It has a number of subgroups. There is the top group, which reports to the Secretaries Board, and underneath that group there are a number of subgroups that work on specific themes. For example, there's a trends and scenarios subgroup. This subgroup includes information such as future climate projections. It includes information that guides the Intergenerational Report that Treasury delivers every five years. It really looks at those big trends and future scenarios. There are also other groups, for example, population and housing, and environment and natural resources; I think their names explain themselves and what they focus on. Each of those groups is chaired by a senior executive within the Government. They're tasked with bringing together work plans to promote the development of common data, common guidance.

The CHAIR: Sorry, Mr Riley, how many subgroups are there?

MATTHEW RILEY: I'll have to take on notice, Chair, exactly how many. I believe there are five but I'll take that on notice.

The CHAIR: Thank you.

MATTHEW RILEY: Those subgroups bring together work programs to enhance the data that we have available for common planning decisions, promote data-sharing and also bring together communities of practice to explore future issues. Each of the working groups meets regularly. They report to the Common Planning Assumptions Group and that group reports to Treasury quarterly on its updates. That's basically the function of the group.

The CHAIR: Mr Hartley, all of these groups doing all of this great work, working with all of these models and we've got this single source of truth—how do we know that the kind of thinking, the modelling and the ambition that's coming through these groups is operating at the instrument level?

STEPHEN HARTLEY: The planning system treats the information that is generated through the Common Planning Assumptions Group as a key input to decision-making. You'd be aware that under the Environmental Planning and Assessment Act, for example, there's the preparation each five years of regional plans. If I take the Greater Sydney Region Plan as an example, the Common Planning Assumptions feed directly into that strategic planning process. The Greater Sydney Region Plan includes a number of objectives. There are around three or four objectives that relate directly to climate change adaptation and mitigation. Those objectives are informed by the Common Planning Assumptions work.

The region plans, from a planning perspective, are a critical document because they flow through to the relevant decision pathway, there being a number of different development typologies and associated pathways under the EP&A Act, but the region plan really sets then how those frameworks make decisions on the development application that's in front of them. Again, there are multiple pathways. Taking an example, where government is the investor—say, government is building infrastructure that's identified through those region plans—the NSW Treasury publishes cost-benefit analysis guidelines. The CBA guidelines set various requirements about how those business cases need to be pulled together, so the region plan utilises the Common Planning Assumptions, the information around climate change and climate change scenarios to identify infrastructure.

When the infrastructure agencies are then putting forward their funding bids for that infrastructure, they're required to prepare those funding bids in a certain way. That information is again called up—the scenario testing or risk analysis—through the broad cost-benefit analysis guidelines. There are also specific cost-benefit analysis appendices that relate to climate change and green infrastructure. Depending on the component or the impact or implications of that infrastructure proposal, those Common Planning Assumptions inform the way that that risk analysis needs to be presented. The costs and benefits of that proposal within a climate change scenario are considered, in this example, at both the strategic planning level and then the site-specific funding approval level.

Assuming that infrastructure project receives funding approval and approval to proceed, there are then guidelines and controls that are applied to the assessment of that proposal at the actual—I suppose you'd call it the detailed planning stage, prior to commencement of site investigation and construction et cetera. For example,

and Mr Preshaw can give you some specific examples, but there's guidance around State significant development and State significant infrastructure. There are requirements to consider the implications or impacts of climate change through that process. There are also cumulative impact assessment guidelines that apply to those processes. At multiple levels, the Common Planning Assumptions feed into the decision-making.

There's also, I suppose you'd say, applied not quite over the top—I'm not quite sure how to show what my hands are doing—there's a natural hazards framework. I mentioned in my introductory remarks about taking an all-hazards approach. The region plans provide that ability to consider natural hazards, which we know with climate change are becoming more regular and more intense. The planning system not only takes the Common Planning Assumptions scenario and the risk testing that goes with that through the decision-making process, but there are also strategic and site-specific requirements around, for example, flooding, around bushfire, around coastal erosion—those natural hazard processes.

Depending on the location and the type of project that might be under consideration, there's also natural-hazard-specific frameworks that apply. For example, looking at flooding as a risk, there is a flood risk management manual that is referenced by proponents and consent authorities that establishes the requirements around how to do flood-plain modelling and how to translate that flood-plain modelling into site-specific decision-making. So the Common Planning Assumptions, the short version is that they're very important and they feed in at a number of levels, but they're also one part of a bigger system that considers climate change through decisions.

The CHAIR: So what do you say to the criticism that we hear, and that we've received quite a bit of submission around, that it's not working? For example, if it's flood-plain modelling, there's a guide on how it should be done, but then a development or an application for a planning proposal will come forward where a consultant has prepared the plan and it says, "This all looks fine to us. We can do this as long as we do these things here." But then you've got somebody outside of that planning proposal system—the consultant, the proponent and, say, the local government agency—and you've got others that are saying, "No, this is actually not going to have these impacts; this is going to have these other impacts." How do we reconcile it at that level if we've had these Common Planning Assumptions that are saying, "This kind of development in this region is a good idea; it's fed into a regional plan," but then, when you come to actually looking on the ground about what's happening, you are demonstrably seeing consequences that are not delivering good climate outcomes and not delivering environmental or natural resource outcomes? How do we reconcile that?

STEPHEN HARTLEY: I think Mr Riley said it well. I acknowledge it is a complex space. There's a lot of information. One of the things that the planning system is moving towards, and I know a number of jurisdictions are moving towards this as well—I think, previously, a lot of decision-making around natural hazards has been based on an understanding of hazard as a static concept. People would be familiar, for example, with bushfire-prone-land maps. Bushfire-prone-land maps are published at least once every five years. Under the Local Government Act, local government has protection from liability where they make decisions in good faith with reference to relevant information.

Bushfire-prone-land maps are also a line on a map. So over that five years—and it doesn't matter if it's flooding, coastal erosion or bushfires, there's a recognition across Australia and elsewhere that that static concept of hazard actually needs to be a more nuanced understanding of risk. So it's considering hazard but the consequence and the layering of different hazards. Two recent inquiries—the bushfire inquiry and the flooding inquiry—by the New South Wales Parliament both strongly recommended a move from a hazard focus to a risk-based focus. That is something that the planning system is moving towards. The Government is committed to that.

The CHAIR: Sorry to interrupt—and my colleagues need to interrupt if they've got more questions—but I have an idea of what that means to me. I can contemplate that, and I could probably write it down, or draft it up, and put flow charts in and all of that, but what does that actually mean in terms of the work that the agencies are doing in moving to that? I noticed in your submission that we are using new words about tolerable risk and acceptable risk. Does that mean that there's an intolerable, unacceptable risk? What sort of things are the brains trust in there contemplating on how we move to this risk base?

STEPHEN HARTLEY: Probably the best example is in response to the flood inquiry. The flood inquiry recommended the move from the hazard concept to a more risk-based approach. The previous flood management manual was published in 2005. That was the major reference document and the framework for all consent authorities. Flood decisions were, effectively, regardless of whether it was flood mapping or decision pathways, made under the auspices of that previous manual. The new flood risk management manual has now been published. It was a 20-odd year gap between them. The flood risk management manual—I don't think "quantum shift" is the right word—includes some very clear guidance, based on the national processes, which are also recent,

around what risk means, how to treat risk, how to model for risk and how to consider risk in decision-making in considering the natural hazard of flooding. That's actually quite a new framework that moves from that really static concept of a line on a map to that more dynamic concept of understanding different scenarios.

How that then translates into decision-making—for example, the department last week published on its website something that flows from that. It's a planning circular that is for proponents and councils about how to prepare and how to make a decision on a site-specific proposal where there is flood risk. The planning circular goes through a number of steps and gives references on how to translate the flood risk management manual in a more specific sense to individual planning proposals about what are the types of matters you need to consider. That includes matters like, if you're in a flood plain and you're putting a development in that flood plain, what is the impact on others in the flood plain from that development? How do you model that? How do you calculate that? How do you assess those types of things? The flood risk management manual, through the planning system, we translate that through specific guidance. The planning circular is just one of those that guides proponents and consent authorities in that decision-making process.

It's very different, depending on the scale that you're operating at. With site-specific considerations, for example, with consultants, one of the things that we have recognised—and that the State Disaster Mitigation Plan absolutely commits to and the department is committed to working with the Reconstruction Authority on—is, as you say, that concept of, "We have done the modelling and we understand the different scenarios, but how do I treat that information?" The SDMP is very clear that, to make those judgements, the community needs to have a role. Councils, local environment plans or local strategic planning statements are one vehicle. You can reflect community sentiment on tolerance—what they want for their community. That concept of tolerable risk, guided by the consent authority and the community, needs to then be part of the decision-making about that site. That's identified in the SDMP, and it is a piece of work that we haven't yet done. But we are putting in planning directions and guidance that aligns with that direction, whilst also working with the Reconstruction Authority on that next piece.

The CHAIR: It was only a little while ago that I was sitting, for some reason, in a local council meeting—I think it was in Clarence—and a bunch of planning proposals and DAs were being approved on seriously low flood-plain land. The community was up in arms saying, "This is absurd." The councillors were saying, "We're waiting for direction from the State Government. We don't have support." When will those sorts of situations change? Will they change? Does our current system, the one that we're talking about, and the outcomes from the flood inquiries et cetera—do you anticipate that communities would be in a position, at some point, where they would be able to go to their council meetings and say, "Here is the evidence that this is a really dangerous development," or where that kind of proposal wouldn't even be before a council? Do you anticipate there'd be a time? How does this work?

STEPHEN HARTLEY: The Local Government Act, as the starting point, provides limited liability for councils where they make decisions in those—

The CHAIR: In good faith.

STEPHEN HARTLEY: In good faith. To do that, local councils are required to prepare various mapping. Part of that is, currently, councils are required to publish, in this example, flood maps. Those flood maps are the reference documents for the types of developments and the types of controls that will be applied to approved developments, depending on where they sit within the flood plain.

The CHAIR: Sorry to interrupt. So then what is happening? How do we go from this static hazard, "Hey, there is the map. That's what it looks like"—I'm from Lismore. We had very advanced flood maps. It was a flood area, or floodway or something, and you knew if you were in a floodway you shouldn't be, because that's where the water moved fast. I think that was back in the '90s. How do you move from, "That's the map," that's the static approach, to "There is the hazard. It's the flood, it's the map" to the risk—where does the translation start to happen? And the intolerable risk or the unacceptable risk, is it because it will destroy the built environment put there or that lives would be put at risk? And when do we know? When do these sorts of things start to happen at the decision-making level, and the community's understanding level of what we will be doing moving forward, given the increase in and the movement of the hazards and the changing nature of the hazards?

STEPHEN HARTLEY: In some senses, that process has already started. There is the framework that I described before. I'm not sure if the Committee is having a session with the NSW Reconstruction Authority, but you're probably aware of the Hawkesbury-Nepean flood evacuation modelling that has been published. The flood evacuation modelling is directly informing planning decisions in the valley. The Hawkesbury-Nepean Valley has a really unique nature. It is, basically, like a bathtub with a whole heap of taps pouring in and only one plughole for the water to leave. So even when the plug is pulled, the bath backs up. It presents the highest risk flood valley anywhere in Australia.

The flood evacuation model has been published. The flood evacuation model includes information on different scenarios and those risks and how to treat those risks, and the flood evacuation model is informing planning decisions already. That's just one example. But more broadly, the State Disaster Mitigation Plan includes those commitments to prepare modelling. I believe that the Reconstruction Authority has three priority catchments that it is doing modelling for. They are probably best placed to talk to that, but one of those is Hawkesbury and I believe another is the Northern Rivers catchment. That modelling is intended to be reflected in planning-specific decisions but there is also a disaster adaptation plans framework. Again, that's led by the Reconstruction Authority, so I can only speak a little bit about it, but my understanding is the State plan identifies the suite of risks and does an analysis of hazard and risk.

What the disaster adaptation plans then do is, where there are information gaps, that information is to be filled and that information informs the catchment-wide or region-wide analysis of highest risks, that's both from natural hazards, from existing population settlements et cetera, and the DAPs are required to be considered by both the department of planning in its planning decisions and strategic planning, as well as local councils in their planning processes. So they're not in place, but I think probably the Reconstruction Authority is best placed to answer in more detail about their time frames.

The Hon. PETER PRIMROSE: Just briefly, I know that the adaption action plan hasn't been formally released because it's integrated in the disaster plan material. In relation to the role of local councils and local planning, who will monitor to make sure that they actually implement the plan? For example, presumably councils can't approve high-rise buildings that are going to fall down but, nevertheless, they are approved and they're falling down. There is a whole range of excellent material that I've read that is coming out. It is fantastic. But when you work your way down the system, who, in the end, is going to be the policeman on the beat to make sure that this actually happens? As someone who is intimately involved in the Hawkesbury-Nepean, I'm still looking at the fact that there are developments going on around the place and, as we both know, the problem is the tap is still on because of the urban run-off going on up there. I am interested in, as well as the planning—and the planning is fantastic—and this may not even involve you, but who is going to police the beat?

STEPHEN HARTLEY: I might just ask for clarity. I'm assuming you're talking about natural hazard or some of the climate modelling? For example, the buildings, I'm aware but not briefed on the new Building Commissioner, who I believe has a role—

The Hon. PETER PRIMROSE: I understand there is a whole breadth of material here. I've been on inquiries for two decades looking at forestry in New South Wales, all over the State. I've been up to Lismore during the floods. I've been out on inquiries looking at droughts and whatever, and it seems to me, following that, people always come up with exceptionally good proposals but it's then left to others at lower levels to be implemented. I am just curious as to who is the cop on the beat to make sure that this actually happens, as opposed to some planner in Upper Kumbukta West Council, who says, "This looks fine to me."

STEPHEN HARTLEY: I would like to be able to give you a really simple and straightforward answer and say it's Mr Preshaw, for example.

The Hon. PETER PRIMROSE: We'll take that as given then.

STEPHEN HARTLEY: Yes, that's right. I think he's got a new job.

The Hon. PETER PRIMROSE: It's on the *Hansard* now.

STEPHEN HARTLEY: In part, it depends on what the planning proposal is. For example, we work very closely with some of the councils in the Hawkesbury-Nepean on their flood modelling and the decisions that they make. Those decisions, depending on the size and scale of the development application, vary from minor DAs to home renovations, for example, up to large new precincts. Depending on what that development application is, we'll have a different role with council. We have close formal and informal relationships on a number of natural hazard matters with councils who are affected by natural hazards. We work pretty closely. There are lots of questions that go backwards and forwards at an informal level. What does that mean? How do I translate it? What does it mean in this situation where I'm mostly through a DA process or I'm just starting the DA process? So we have those relationships.

Depending again on the natural hazard, there is work that the department does, both by embedding officers and by providing funding for councils. New systems, one of the challenges is always making sure people pick it up and understand it. And then, for example, in the biodiversity space, in Western Sydney there is the Cumberland Plain Conservation Plan, where there are six officers that are embedded—or the proposal is, we're negotiating with councils at the moment, councils have asked for six officers to be embedded to upskill staff, and we have been working with councils on the funding and work program for those officers. Similarly, in coastal

erosion there has been an ongoing funding program to ensure that people can do the things that are asked of them and that the resources are provided.

The question then about who checks is, in part again, dependent on the type of proposal. Sometimes it is the local community. So if you're buying a house, you've got notification on title. You say, "Hang on, what is this?" There is a flood notification or bushfire notice on the title—"What does that mean?" So sometimes it's the community. If it is a broader process that's got some form of consultation with it, public consultation, the community will often raise very valid questions about the type of and controls for that development, given its location and potential risks. And then there is also work the department does. Again, I'm not aware of any single officer whose role it is, but we do do audits of implementation. We go in. I'm aware of several projects where we've worked with councils. We've, effectively, analysed the development approvals that they've provided to look against, "Does it meet the requirements of how that decision should have been made?" And we do work with councils on performance improvement, including improving the types of guidance and training and so on that we give as well. The planning system makes decisions across a breadth of projects. We do try to ensure that we provide the support, the training and the checking after. Hopefully, that gives you some—

The CHAIR: Thank you.

The Hon. PETER PRIMROSE: I go again at just presuming that in this there will be—I look at the approval of a checklist. I'm living in a city at the moment where we have a second airport being constructed, where, for the first decade at least, it's acknowledged it's largely going to be a freight or cargo airport and we don't have a freight railway, which means that it has been approved, which means that everything will be transported backwards and forwards on trucks throughout Western Sydney on that congested road network. We knew that. Everyone knew that. Yet it has been ticked off and is currently being constructed. We still have no real plans for a freight line, which everyone acknowledges is absolutely critical to the effective operation of that. So knowing what has to happen and no cop on the beat is what troubles me, that's all.

STEPHEN HARTLEY: If it helps, the department publishes in the natural hazard area. Yes, there is a complexity of framework. We do publish really basic one-page checklists, for example. Those are on our website. The natural hazard State environment planning policy, for example, brings together—sets eight principles for the treatment of when you're considering all hazards. It has a really handy implementation guide, and one of those things is a checklist. That is a good example of we take those, we then work with council and say give us 20 development approvals, or we select them off their website. We look at whether that checklist has been applied. We look at the quality of the information. We look at whether the consultants are providing significant differences between initial and final documentation, for example. It is just not a single cop on the beat, I suppose.

The Hon. SCOTT FARLOW: You were talking about the mapping process for both bushfire-prone land and flood-prone land. When were the last maps undertaken for both of those categories?

STEPHEN HARTLEY: Each map is prepared for its local area. For example, bushfire-prone maps are required to be published, at a minimum, every five years. But they're on a council-wide basis so I haven't got that list.

The Hon. SCOTT FARLOW: It's all on a council-run basis. There's nothing that's done centrally by the department?

STEPHEN HARTLEY: No, there are some. For example, I mentioned the Hawkesbury Nepean flood evacuation model that is across multiple councils. That was prepared by the State Government and that was released I'm going to say late last year but I would have to—

The CHAIR: I think it was the year before.

STEPHEN HARTLEY: It depends on the matter and it depends on the risk of the hazard.

The Hon. SCOTT FARLOW: With respect to that, does the department keep any central figures in terms of the expansion of those maps and how many properties or the size of properties that are impacted by both flood-prone land and bushfire-prone land?

STEPHEN HARTLEY: That would be a GIS mapping exercise. I don't believe, on a statewide basis, we've have done that, but I'm actually not sure. I know the NSW Reconstruction Authority has done some very detailed analysis across natural hazards and other cyber and disease vectors, and so on. I am not sure what information they used to do that work. I also am aware that, for some projects, the impacts of various hazards are taken into consideration. So if you've got a precinct proposal, like a large area for development, and that area is in a flood zone and a bushfire zone, then mapping is done to look at current state and impact of proposal. That would be an example of where you do an assessment of how many people are in harm's way at the moment, how many people under the proposal could be impacted by those hazards and then, as part of the consent authority,

you would consider that information as part of its decision on whether to approve that proposal or not and, if they decide to approve, if it's appropriate, what types of controls would be in place.

The Hon. SCOTT FARLOW: My interest is, as we're looking in this inquiry at climate change and the increasing threats, what that actually means in terms of properties across New South Wales. How much growth there is, in terms of properties that are in—for want of a better word—harm's way when it comes to bushfires and floods. Your submission also talks about tolerable risk. I live on bushfire-prone land myself. We had hazard reduction burns yesterday; therefore—hopefully—eliminating some of that hazard. In terms of the tolerable risk, has there been any work done in terms of changing the metrics around what that tolerable risk is, for instance?

STEPHEN HARTLEY: That is a piece of work that the Reconstruction Authority has committed to. It is one of those priority actions identified in the SDMP. In a way, though, that is what the planning system does. Any planning decision is a merit-based decision and the EP&A Act sets up the framework for a merit-based decision, which is giving credence to the framework that you're required to operate in, so consideration of bushlands and other risks, the social dimensions of any development proposals, the economic benefits, and so on.

The CHAIR: Can I put to you on that answer, based on what Mr Farlow is saying, one example? My contention at the moment would be that we are not succeeding on that basis. For example, there was a senior's development that was refused, I think, in Ku-ring-gai and it was in a flood-prone area. The local determination was it really shouldn't go ahead because it's putting quite a few people at risk of serious danger—death, fire. That was seen as something very exceptional that that would be refused in those circumstances. It required all these independent bushfire assessors to fight the other bushfire assessors to do this. Whereas, I looked at it and thought, "That would be absurd to put that development there in the current settings and circumstances." But I was seen, as was the community and the local decision-making agency, as the exceptional outliers. We were the kind of mad people, thinking that that was dangerous. I think the decision is standing that it won't be going ahead, but how do you reconcile that? If our view is, we've got these maps, we've got these things—some of them are updated and some are local government level maps—and then at the development assessment level, if that is the safety net and safeguard taking the precautionary approach to not put people at risk of death or harm, and it's the outlier, how are we achieving this, do you think, from were you sit?

STEPHEN HARTLEY: I'm not across the Ku-ring-gai development, so apologies for that. At a broad level, I think there's a couple of pathways. I am aware of developments that have been not been approved because of risk. One of Mr Preshaw's and my colleague, who is on leave at the moment, has worked on not the same but similar development proposals where there is clear net risk from natural hazards and those developments haven't gone ahead. So I am aware of other decisions that have been made in—

The CHAIR: On that, what kind of developments would have been refused on the basis of—is it fire or flood risk?

STEPHEN HARTLEY: The ones I am thinking of most recently are on the basis of flood, but that's probably because that is more in my area of accountability. I am sure there are others, but I am definitely aware of some decisions.

The CHAIR: Are they housing developments or infrastructure projects? What sort of developments are we refusing on the basis of those risks?

CLAY PRESHAW: I might just jump in there. I believe there has been a hospital expansion, for example, that has been refused on the basis of flooding risk. But I'm an assessment person, as you know. I would argue that most projects that have significant issues like flooding or bushfire—

The CHAIR: Don't get to that final point?

CLAY PRESHAW: They just don't get to the point of being ruled out. Once they get to the State significant development assessment stage and we start identify problems like that, we would weed them out and they wouldn't make it to a determination. That is my experience with major issues like that. Perhaps if I can just reflect on—what you're talking about, in my mind, is strategic planning versus assessment planning, and to say that most projects, when they get to the specific assessment stage are actually making their way through the system, perhaps that is a reflection that the strategic planning is working and that we are getting the right projects in the right place. But I would say that this is an issue across all areas of impact assessment.

It's impossible to pre-plan exactly where everything should occur, whether that is to do with flooding or bushfire, or it relates to biodiversity or water, or all the things that we deal with in projects. It would be wonderful to have a very clear plan in advance for every type of project and every type of impact that says yes or no to whether it can occur on that piece of land, in which case I wouldn't have a job and all the people that work for me wouldn't either—you could just look at a map and work it out. But that's not realistic. So you do end up with some

projects being identified—maybe they fit certain maps and they fit certain strategic plans, but when you get to the specifics of the merits of that project, they may not stack up.

The Hon. AILEEN MacDONALD: I want to turn your attention to agriculture. I understand the risk-based approach. I will give you a little preface here. Your website says, "Australian agriculture has a value of \$59 billion, of which New South Wales contributes 23 per cent." Agriculture is important in New South Wales; it supports 85,000 jobs. With the risk-based approach, if we take into account all those considerations of wiping out agriculture from the planning process—and I say that because in your 26-page submission it only appears in the last two paragraphs. I know that's a bit harsh because planning would, but in terms of the challenges that agriculture faces like you have said—urban encroachment and people moving to regional areas who then complain that they've got someone picking and packing berries but they were there first, those kinds of things—what assurances would you give the agricultural industry and the communities that rely on those agricultural industries that they have a continued right to farm?

SEAN SLOAN: I think that's a really good question. The discussion we were just having about flood-prone areas—there is an obvious tension point there, which is that, as you move to create opportunities for community development and housing, that naturally flows into areas that are off the flood plain and into important agricultural land. That's why this issue is so important for agriculture. If we look to a 2019 AgriFutures report, Australia experienced 14 per cent decline in land use for food and fibre production between 1973 and 2017, so this is a real issue. Our vulnerability assessment work that I mentioned earlier, where we looked at a whole range of commodities, informs industries and communities about where the vulnerabilities are and that informs the planning framework.

The planning framework is one instrument, and I think it's probably the most important instrument, but research and development is also an instrument of government. If we think about some of the research that we have done to address some of the issues in agriculture—like low methane beef, where beef in feed lots can be fed on an algae-based feed product and pretty much produce no methane, or oysters that can be bred to be resilient to climate change—R&D plays a really key role. That's a really important call-out. In terms of the planning framework and the work that the agriculture commissioner has done, there's a report that's very comprehensive which speaks directly to this issue of agricultural land use and the tension in the planning framework. I think that's an important one for the Committee to consider.

KATE LORIMER-WARD: If I could add to that, a lot of the work that we do with local councils and regional groups is around making sure they do have a strategic plan for agriculture. I think that that's one of the things that we keep going back to. We need to be able to identify what is the most important agricultural land in regions and are there ways that developments can avoid those so that we can actually prioritise that land. Not all land is equal. Having those strategic agricultural plans at that regional and local government level is going to be really important. I think the second part is that, as Sean said, as we start to move communities off flood plains and out of fire zones, agriculture becomes often the default land use in those zones.

There is some further work we need to do with the industry and with our Planning colleagues and Resilience colleagues around how do we make sure that those industries still actually can be resilient and sustainable on those flood plains and in those bushfire zones because they will be the most important land use manager of those areas. But the tolerable risk question needs to be addressed. How can we build resilience into those, such as flood mounds for livestock to be able to seek refuge on? That's shared infrastructure that no-one can do as an individual but can be facilitated as a collective. They are the sorts of things we need to be thinking about. What does climate resilient agriculture look like in some of these areas?

The CHAIR: I know that in the few days after the flood in Lismore I had, in the madness of my mind, already designed what the entire Lismore flood basin should have been. "Right, we're all moving up the hill. This will be beautiful green space and we can grow all the food in the world and have fantastic gardens." And then I went, "That's right, there are all the people and housing and everything." It's incredible what you do in these circumstances. I have three things to ask. One is the concept of subsidiarity and this notion of decentralising the power in terms of planning and decision-making and whether there is any work in the department of planning and the Government around—I am hearing very much that we have these incredible centralised bodies that are doing some of this really incredible work, including our Common Planning Assumptions group, our strategic planning teams and then there's this filtering process through the instruments of what we do.

I am just curious if there is any work happening, what we should and could be doing to empower local communities in those decision-making frameworks and the implementation, and also how we are feeding communities that are on the front line of these hazards at the moment and what we are doing to get their experience, their understanding and their capacity to look after each other in the frameworks. If there is some work happening, I would love to know what that work is. I know that the Environmental Planning and Assessment Act says public

participation is really important but we know that we've reduced it to 14 days, 30 days to have input into a document that is very developed. I am just wondering, is this concept of decentralising power something that is being contemplated and should it be something we contemplate?

STEPHEN HARTLEY: I think the simple answer is that that's a really good question for the NSW Reconstruction Authority. Why I think that is because, in part, in the work that I understand they are doing on the disaster adaptation planning framework, community is at the forefront of understanding the risks and understanding the balance of that risk that the community wants. They love the place they live, but there is risk to live there. I understand the DAP process will consider that. I think that's probably a good question for the Reconstruction Authority.

Specifically, with regards to the department of planning, I am also aware that there are instances where various planning documents have been prepared or planning processes have been run in a similar vein. We ran a pilot recently in the Illawarra Shoalhaven. It was called the regional environmental action plan, which was not within my area of accountability so I am not fully across the project. But I understand it was a Commonwealth funded project. It worked with council and some community members on what the risks and opportunities look like in the Illawarra Shoalhaven, from climate change, natural hazard and other factors. It pulled that together and, I believe, did a day's worth of in-room scenario modelling with various people.

The CHAIR: Did that come post the fires?

STEPHEN HARTLEY: I know that has been running for a couple of years and, I think, been completed just recently. I'm not sure whether a final report has ever come out of it. I'm just not across it enough to know exactly when the project started, but I know it's an example of that type of decision-making process.

The CHAIR: I wanted to also ask about the land-use planning for agriculture and whether or not the intersection between the uses of land for agriculture and the planning system—is there a tension there? Is there a complementary relationship? I know many years ago the DPI developed that incredible land-use conflict tool. It was a project that I think was developed from DPI Wollongbar a long time ago. I thought it was an incredible piece of work and provided direct inputs into how the planning system and agriculture can work together. What does that relationship look like at the moment?

KATE LORIMER-WARD: We are a referral agency from planning, so we do get invited to comment a lot on developments that may have an impact on agricultural land, or where councils are seeking to rezone land away from agricultural land, or even changing some of the requirements about what are permissible activities on agricultural land. There will always be tensions—that's why government is set up the way it is—but I think there is definitely an appreciation of the significance of agricultural land. For us it's about making sure that we get as much consistency across local government decisions and policies around how they deal with agriculture. That is one of the things that we always seek to achieve. For example, in some councils, shading—

The CHAIR: Yes, I was about to bring this one up. Exactly. It seems like that's where there's a real tension.

KATE LORIMER-WARD: A lot of that is definitional-type things as well. They're pieces we need to keep working through.

The CHAIR: In relation to that, with, say, the blueberries on the Mid North Coast, that one is a really big one and it's been going on for years and years. It seems like some local government areas managed to muscle up and the industry went elsewhere, and now it's muscling up somewhere else. Where do you think the balance is? Should agricultural use have that priority over land-use planning controls, or where does that sit in terms of the future? What should we be striving for?

KATE LORIMER-WARD: I actually think it is one thing for the future. As industries look to find what are their adaptation options, solutions such as shading or polytunnels may actually be the adaptation option they need to move to. We are going to have to find those ways of having those recognised and continue to evolve as industries look for new technologies to adapt to climate change.

SEAN SLOAN: If I can add to that, one of the recommendations that the Agriculture Commissioner made in his report was the need for New South Wales to adopt a State significant agriculture land-use planning policy to inform all of these types of issues.

The CHAIR: That's very interesting. I was actually going to ask all of you at this point: Do you think that it is the SEPPs that provide the translation to the strategic planning work that is happening to the local decision-making and the actual impacts on communities and the environment? Are the SEPPs still the best instrument? I was thinking if it is an ag SEPP, do we need a climate change SEPP now that we've got the climate legislation? Is that something that is happening? I'd love to know your views on that.

STEPHEN HARTLEY: I'm happy to take that one and then for other colleagues to add. SEPPs do play a really important role in decision-making. It depends on the type of development proposal that's coming forward. Taking a step back, the strategic planning framework is a really critical piece, I think, of what you're asking, in that the local plans, infrastructure, the tension between land-use types is first considered through the region plan—a strategic planning lens that establishes, roughly, a five- to 15-year planning horizon for different land uses. The SEPPs then play a role in translating that region plan vision and set some of the controls for some of the types of developments that are there.

Equally, though, there is another level of framework. For example, with blueberries, a region plan might identify future areas for either expansion or contraction of that land use. I haven't worked on that, but it is a good example of an industry where there might be a need for specific guidance or an industry standard that sets how consent authorities can condition that development, for example—I think more in terms of the flood and the bushfire space, where there are design criteria that are then reflected in development control plans and so on. SEPPs are definitely an important instrument. But because there are other decision pathways, there is the existence of material that helps determine this planning decision appropriate to that pathway or that development type—and it's not always a SEPP.

KATE LORIMER-WARD: One of the other recommendations from the Agriculture Commissioner was to explore the opportunity to establish a farm practices panel. Some of the key parts of that farm practices panel are to be able to almost set the industry codes to say, "This is how this industry operates and these would be accepted as the standard infrastructure that's required for that industry, the standard movements." Particularly for some industry, movement at night using trucks is best practice but that causes conflict in some of the planning pieces. That was one of his recommendations: Let's pilot whether this farm practices panel can establish these codes of conduct or codes of operation that can inform some of that planning, local decision-making. Does it bring some consistency for the industry across the State?

The CHAIR: I've got one more question. I know we are just about running out of time. It seemed in the past as being quite controversial, but now it seems quite accepted: a planned retreat and relocation. Is there work that is happening that is identifying the areas where those hard edges of adaption in the State are being reached? Will there be work—or is that the Reconstruction Authority that will identify areas that will have to start looking at relocation and planned retreat?

STEPHEN HARTLEY: I believe that's best directed to the Reconstruction Authority. I know that they have relocation programs that exist at the moment and are also trying to get people who have been affected by floods back in houses. But I think they're best placed to talk about that.

The CHAIR: Just finally on that, what are the current passages of Reconstruction Authority work to Planning, DPI—is it literally through those plans or is there a more active, dynamic relationship happening to respond to changing circumstances within your agencies?

STEPHEN HARTLEY: The short answer is yes.

The CHAIR: Right.

STEPHEN HARTLEY: We work very closely with the Reconstruction Authority. Part of the Reconstruction Authority is staffed with staff who used to work with me.

The CHAIR: Shared staff, yes.

STEPHEN HARTLEY: If you look at the 37 priority actions in the State Disaster Mitigation Plan, there's a very strong recognition that that work needs to happen at a whole-of-government level, and then also individual agencies are called out. Work is already ongoing on those—well, I can only speak for planning actions, but I know from a planning perspective we were already working together with the RA and other agencies ahead of the plan being released. The Reconstruction Authority has planning powers under their legislation and we work really closely with them. They now have a published commitment about actions and time frames that will deliver some of the changes that I believe you've been talking about.

The CHAIR: Thank you. I think we've come to time. Are there any last points?

The Hon. AILEEN MacDONALD: Can we do supplementary questions on this?

The CHAIR: Yes, we can.

The Hon. SCOTT FARLOW: Yes, it's not one of the short ones.

STEPHEN HARTLEY: Mr Primrose, I should have said before—I don't know why it slipped my brain—that the department has a compliance team. The department's compliance team works with council and

works with other agencies. It does do work both around alleged noncompliances but also proactive investigatory work. It is for a subset of development types. Sorry, I should have mentioned that before.

The Hon. PETER PRIMROSE: I appreciate that. Thank you.

MATTHEW RILEY: Chair, I took on notice the sub-groups of the CPAG. I can report back that there are five subgroups of the Common Planning Assumptions Group. They are economy and employment, which is chaired by DPFI; climate and natural resources, which is chaired by DCCEEW; population and dwellings, which is chaired by DPFI; trends and scenarios, which is jointly chaired by Cabinet and Transport; and transport and freight, which is chaired by Transport. All of the subgroups have cross-government representation.

The CHAIR: Great, thank you very much. We've come to the end of the session. We'll take a short break and be back at 11.00 a.m.

(The witnesses withdrew.)

(Short adjournment)

Dr GRAHAME DOUGLAS, School of Engineering, Design and Built Environment, Western Sydney University, affirmed and examined

The CHAIR: Welcome back. Mr Douglas, would you like to start by making an opening statement?

GRAHAME DOUGLAS: Yes, a very brief one. First of all, I thank the Committee for inviting me here today to give evidence. I'd like to acknowledge the traditional owners of the lands upon which we meet today. It's very important in this place to recognise the traditional owners and those Elders past, present and emerging. I found it very interesting sitting through the previous presentations. The contentions in my submission are that the system is broken. We've had a history of various public inquiries, which I set out in my submission, and, in many cases, the recommendations and findings of those inquiries have not been implemented over an extensive period of time. The current system, as it is, is government controlled and not controlled by local government or the local people. I note that the LEP template, which is the guiding principle at the local level, is essentially a matter that has to be adhered to. The variations available to people in terms of that template are very small.

In relation to planning proposals, we've heard that we are moving to risk based. They are not risk based. Planning for fire protection, which sets out the strategic planning principles, does not discuss risk, nor does it address climate change. We've had historical zonings that have been established over many years. A good example of those is Knights Hill, which is near Port Stephens. It's an area of koala habitat, extensive bushland and high bushfire hazard, and it has been sitting there zoned to be developed for many years. Recently, proposals for that area have been rejected, but it's still on the cards. We've recently had the New South Wales bushfire inquiry, which has made key recommendations. I point to recommendations 27 and 28 specifically in relation to that. There are matters that have been responded to that are actually not related to the recommendations.

We are not adapting. Bushfire-prone-land mapping is not keeping up to date and there are major problems in its implementation. We heard earlier today discussions about fire weather and the FFDIs. We are not bringing them up to date and they aren't meeting current standards, let alone climate change. One of the questions I think we need to ask is what are the metrics that are being used in relation to assessing development applications? At the moment, the metrics are the time to get through a development application rather than the effectiveness of those matters in terms of adapting to natural hazards and climate change. After 20 years we need to change.

Part 5 matters are currently being used for major infrastructure like schools and hospitals, and are largely getting through the loop in terms of bushfire considerations. State significant development also doesn't require formal referral, although there is some consultation for bushfire. The system is complex and hard to follow. There are many pathways for bushfire-prone areas and we are not addressing section 4.15 of the EP&A Act in that process. In addition to that, we have a system of consultants and various codes that have been put in place in response to various fire events historically that could be improved, and should be improved, but are actually not being acted on.

Just by very brief mention in terms of my background, I commenced in the then Department of Environment and Planning on 1 September 1980. That was the commencement of the EP&A Act. I have been involved in land-use planning ever since in various guises. I spent 17 years with the NSW Rural Fire Service and implemented the post-2001-02 inquiries, legislation and *Planning for Bush Fire Protection* document that has been adopted and has been the foundation of bushfire protection since that time. In the last 10 years, I've been an academic at Western Sydney University, teaching bushfire planning and protection. I don't have as much skill in floods or coastal inundation and other matters, but I believe that there are parallels to bushfire, particularly things like coastal inundation.

The CHAIR: Thank you so much for your submission and for providing that fantastic potted history. You present in your submission that the mapping is very flawed, not updated and not dynamic et cetera, yet we have heard from government that—I think that's what we were hearing—that is the primary decision-making tool that we're using as we move to inform what is called the risk-based approach. What is your experience in terms of the reliance on the mapping that we have at the moment? How fundamental is that mapping to the decisions that we're making in relation to where people are building, placing themselves and the risks that we're exposing people to?

GRAHAME DOUGLAS: Bushfire-prone mapping in this State is a trigger for a consideration. It is not a barrier to development, nor was it ever intended to be so. The problem with the system at the moment is that it is just a very crude tool that says that there is a hazard and that there is, in fact, an area of impact around that, which is the buffer identified on bushfire-prone lands. The problem with the system is that local government is charged with the process of developing bushfire-prone-land maps, and many councils lack the resources and the capability to actually do it. You will see in my submission that jurisdictions outside of New South Wales have

consistently recommended that bushfire-prone-land mapping should be centralised and done by State government so that they are maintained and kept up to date.

I note in my submission that the Shoalhaven bushfire-prone-land map took seven years to get approved after they submitted it to the Rural Fire Service. They're supposed to be reviewed every five years. I also note that that's under the EP&A Act, not under the Local Government Act as indicated earlier today. The provisions for bushfire-prone-land mapping are based on a set of guidelines. Those guidelines have good points and bad points, but there are provisions in those guidelines that were established to respond to the 10/50 provisions. So we have a category that basically says you can't use those provisions for local government reserves et cetera, but there are deficiencies. The Australian standard and the *Planning for Bush Fire Protection* document requires a 50-metre buffer for rainforests and grasses. The mapping guideline provides for 30.

The royal commission into the Victorian bushfires identified clearly that the 100-metre buffer that's being used for forest vegetation and other high-hazard areas is inadequate and needs to be bigger. They didn't recommend a specific size, but they did note that 145 to 150 metres would be a better metric than we have at the current manner. In relation to guiding development, it does very little in terms of actually guiding where people will do it. The guiding of development occurs by virtue of the zoning or planning proposals that come forward in relation to changing that zoning process. It's a trigger for a consideration and it has a link to the building code of Australia as well, but it has very little strategic value in providing a strategic direction for where development should occur.

The CHAIR: You mentioned the 10/50 code. I was gathering that has led to some perverse consequences. Can you explain how that has played out? When I say "perverse consequences", I mean including unnecessary harm to the environment or vegetation communities. Is that something you can explain to the Committee?

GRAHAME DOUGLAS: Yes. I might, by introduction, indicate how we got to the 10/50.

The CHAIR: Thank you.

GRAHAME DOUGLAS: The 10/50 actually arose—I'm going to work backwards. Victoria has a 10/30 and a 10/50 provision. The 10/30 applies to areas which are identified as bushfire-prone lands, but where they operate under the planning scheme in Victoria it's a 10/50 provision for developments prior to new development taking place from the beginning of those planning provisions. Those provisions came from California. California used a very similar system where they had a 30-100 feet system as a recommended area of clearing and trying to manage around the home, particularly a rural home, so that people could actually get some level of protection in an environment where they do not provide, in California, building protections and other measures that we would do here in Australia. So the United States has a different cultural paradigm about how people build and how they're allowed to do things et cetera. In Australia, and New South Wales in particular, we have a view that we should be helping people by actually designing and building to be resilient to those bushfire events.

That was the history of how we got it, and then the provisions in terms of what the perverse outcomes were were in two stages. When the 10/50 was originally produced, it was a carte blanche. What happened is, a number of developments were taking place or being proposed in New South Wales and the courts were being pointed to by local government that said, "If we approve this development and this is"—in one case it was—"a blue gum high forest, one of the most endangered communities that we have in New South Wales, post development the developer will be able to clear an extra 10 and 50 metres, or underscrubbing 50 metres, out from that development, if we approve this." The court said in that case, "We will refuse that development." It caught the government at the time on the hop because it had not envisaged what the consequences were going to be.

They then amended it in part to start bringing in some limitations. Those limitations started to include things like areas that had, for example, a Biodiversity Conservation Trust agreement or other easements. It included areas that local government might identify as being natural bushland in their areas, but they had to be mapped in the bushfire-prone map as being excluded from the 10/50 provisions. There were other matters that were introduced as environmental controls, but they were all done after the initial implementation of that code, and now the code sets out a number of provisions that actually tries to limit it. One of the key issues, though, in the limitations of that code and the rural boundaries code is there is no reporting and monitoring of what is being done. In other words, if I exercise my right under the rural boundaries code or under the 10/50 code, I do not have to report it to anybody to know what's actually happening. There is a lack of data and a lack of information even as to its effectiveness.

The other thing is, it can apply by consultation with your neighbour. You can actually implement it through your neighbour's property, to give you protection for your house, with that neighbour's agreement. So it was a system of abuse. People used it for clearing rather than for bushfire protection.

The CHAIR: In terms of the neighbour, if their property was part of the protected area network or Crown land, have you had any anecdotes or experience of how that may have played out across the landscape?

GRAHAME DOUGLAS: Yes, I have—not so much with the 10/50, but I will relate a development application matter which I found exceedingly concerning. On the North Shore, the old Ku-ring-gai campus of the University of Technology Sydney was sold to a school. That site is clearly usable as a school, but in undertaking a development application to get approval for that school, the approval included the clearing of Lane Cove National Park to create an asset protection zone. In other words, the neighbour was being asked to meet the requirements for this school. Now, I believe alternate measures could have been put in place for fire protection and that school would probably be an acceptable use, albeit that there would be significant bushfire risks on the boundaries and that that would need to be managed in terms of how you would do that—so things like fire protection systems within the site, building controls and improvements to resilience.

The CHAIR: Just to be clear, Mr Grahame, did the national park end up having to clear areas to protect the neighbouring property?

GRAHAME DOUGLAS: It still hasn't happened because the park service has not agreed to it at this point in time.

The CHAIR: But that was, in fact, what was contemplated?

GRAHAME DOUGLAS: That's what was, in fact, contemplated to be put in place. One of the biggest problems that's been in the bushfire space, particularly areas from historical developments, is that people have an expectation that the neighbour will clear the land so that they can facilitate their development taking place. That, in planning terms, is really quite contrary to how we understand planning principles would operate. If you're going to develop your land and you have an expectation in the use of that by virtue of a zoning or some other measures that allow you to develop that land, you need to put the controls on your land to actually give effect to the development's suitability, not the other way around. This is reflected—and I did comment on this in my submission—in the failure of section 4.15 of the Act, which actually does not include a provision that looks at natural hazards as a key decision-making evaluation measure.

The CHAIR: So it refers to things very broadly, like the suitability of the site?

GRAHAME DOUGLAS: That's right.

The CHAIR: Rather than looking at the actual hazard and risk?

GRAHAME DOUGLAS: Yes. Town planners look at things like the suitability of the site or the public interest in fairly narrow terms. But having a trigger that says that we need to address natural hazards means that town planners actually have to do that. I illustrate that with a very simple example. Liverpool council received a development application for a subdivision in Austral. Austral is not the most bushfire-prone area in the State and is currently becoming urbanised and will be an urban area in time, but the area was mapped as bushfire prone. The council didn't identify it as bushfire prone, even though it's mapped bushfire prone. That was the first thing. The developer didn't offer a bushfire assessment report.

The matter went to the Land and Environment Court and the court was not aware that it was bushfire-prone land. It got approved and went through the whole processes, but it wasn't until the certifier came along to approve the construction of buildings that they realised that, in fact, it was bushfire prone. But all the decision-making and planning that had gone up to that point had failed to look at bushfire as being an issue, and that's simply because when I'm looking at ticking the box under 4.15 I don't see "natural hazards".

The CHAIR: And so, in a circumstance like that, if that had run all the way, is there anything any public authority can then do, once development consent has been granted, to change the outcome?

GRAHAME DOUGLAS: Yes, it's actually really difficult and the reason is that New South Wales has a State variation to the Building Code of Australia which relies on a decision being done at planning to give the construction outcome that a certifier will look at. It can default back to AS 3959, which is the construction standard for building in bushfire-prone areas, and so the certifier can pick it up a bit at that end. But the fact that it got all the way through that planning process and the other planning provisions like roads, access, water, just emergency evacuation areas et cetera, all slipped through that process. As I said, I don't think Austral is the worst example of where this could be, but it is a microcosm of the challenge before town planners in local government with the resourcing that they've got and their skills, to actually try to address bushfire-prone matters. There's an over-

reliance on the Rural Fire Service giving advice but, if you don't find the trigger to actually consider it in the first place, it just goes through and it ends up being built at a point in time when the certifier scratches their head and says, "What do I do?"

The CHAIR: As you say, there is no mechanism for them to go, "Whoa! We got this very wrong."

GRAHAME DOUGLAS: That's right.

The CHAIR: Or, "This is dangerous, how do we"—

GRAHAME DOUGLAS: Yes.

The CHAIR: They literally have to certify what's been approved.

GRAHAME DOUGLAS: Yes, and what might happen, for example, is that if the development is too close to an area of bushland, people are being asked to build to what is referred to as BAL flame zone, which is exceedingly costly to do, as opposed to a reasonable building at BAL, say, 29. BALs are the bushfire attack levels used in the standard. Those costs are quite reasonable in terms of how we build and they provide setbacks so that we actually protect some of our bushland. But if I'm building right up against the bush and then I—as a homeowner—find that I'm BAL flame zone and I'm paying \$100,000 or more to build my home, my immediate reaction is to look at my neighbour and say, "Are you going to clear some of your bush?" We have to get the planning right so that we actually diffuse the tension between the land-use decision-making to build in areas versus the conservation and protection of our environment in other areas. These are where the tensions exist and we actually need to look at addressing that.

The CHAIR: Is it your contention, through all of that experience, that really we need to be feeding in at the rezoning process what these risks and constraints are? One of the first steps to address this is better zoning to better identify lands that really shouldn't be developed because they're fire hazard lands?

GRAHAME DOUGLAS: Madam Chair, I'd like to put it in two different ways. We do need the strategic planning. We need to get it right, and it needs to be risk based, which it isn't at the moment. It also needs to address climate change, which it doesn't at the moment. However, we have huge legacy areas of rezoning where development hasn't currently taken place. We actually have a dilemma that we've got to do the right strategic thing for the future, but we have a huge legacy of areas and we're not addressing how to deal with that legacy issue either.

Recommendations 27 and 28 to the NSW Bushfire Inquiry—27 was we need a strategic approach and we need to address that. We still have not heard from the department of planning what that strategic approach is three years after that inquiry handed down its findings. Recommendation 28 said that while we're doing that strategic stuff, we need to actually work out an improved way of dealing with the existing situation and we need to make life simpler for people in how to actually do that. For example, it can be quite a process for a person who wants to willingly upgrade their building for bushfire protection to improve their resilience.

It's quite a process for them to go through the planning system to actually get an approval beyond what they may reasonably be able to afford. We have this complexity which is driving the process instead of having just a straightforward, simple pathway that people can use. It gets more complicated because we have part 5 matters, we have State significant development matters and we have different drivers of why the State Government wants something to be State significant development et cetera.

The CHAIR: I don't know about my colleagues—we are running out of time—but I have a couple more if that's okay. In terms of that and those different pathways, your contention as I understand it is we are not having that risk-based approach identified up-front. It's something that we discover along the way in various different ways. We're missing it, which leads me to the question—and you put some information in your submission—about the expertise across the State. The professionals—I note that there are more than there used to be.

GRAHAME DOUGLAS: Yes.

The CHAIR: What is your view at the moment in terms of the condition or the health of the fire expertise across New South Wales?

GRAHAME DOUGLAS: We actually have quite a cohort now of people in over 20 years and Western Sydney University has been training between 20 and 30 people a year. They're across the country. The overwhelming majority are New South Wales based but not all of those are working in consultancy-type areas. For example, some work for fire services. In the Rural Fire Service, for example, there are people who have done the course, for example, in that. The profession actually needs guidance. The problem that we have at the moment is you can know what you should do, but if the regulator, in the form of the Rural Fire Service or the council, doesn't adhere to the rules that we're expecting from planning, then the consultant works on the basis of what they

can get away with as opposed to what it's supposed to be. It's not deliberate. It's not malicious or anything like that. There will be mixes of competency. You can train people; you can't necessarily make them ethical.

The problem that I think we have is we actually need an improved regulator of the industry. At the moment, the Rural Fire Service hands it out to an association, an industry association. That industry association takes a very hands-off system, and there are issues around how they can raise revenue in relation to that scheme et cetera. If I was a fire safety engineer, a building surveyor or a designer, I would be regulated by Fair Trading. I'd have to meet their requirements and then they might have support by an industry association.

We regulate swimming pool inspectors. I'm not saying we shouldn't; we regulate all sorts of people who are working in this field. We do not regulate bushfire consultants. They are essentially on their own to do their own thing. I work in the field. I do work. I don't need to be regulated in any way but I think I should. I should be regulated by Fair Trading as if I was a fire safety engineer. The rules that apply to that profession should apply to bushfire consultants equally. It is too important to the public safety and good of this State, and it's too important to our environment not to have professionalism looked over by the regulator who regulates other building professions.

The CHAIR: I know that we've hit our time. Are there any final questions that anybody has? I'm very grateful for your time and your evidence. Is there any final thing you would like to say?

GRAHAME DOUGLAS: I just think the only thing I'd like to add in conclusion is I would like you—although I've gone into the mud in my submission, it's meant to be indicative of what we could do. I'm not trying to say that's what we should do—or shall do, is probably a better word—but what I'm saying is, there is something there that we should be looking at and actually doing better on. The problem that we have is there's huge inertia in the bureaucracy to change. We should be now using a higher fire weather condition in the Central West and the North Coast, where I live. I live at Coffs Harbour. It has been 20 years. My research clearly indicates there's been a shift in the fire weather over that period of time and yet we are not adapting to that change.

The other thing I would briefly say is be careful your report doesn't go the way of the dodo, as all the others that I've highlighted have. You need to think about, I believe, how you can provide practical outcomes for government to act. At the moment, we've had a plethora of inquiries and we are getting very little shift. I've always offered, to both government and to any of the parties, my assistance and help in trying to do it. I don't say that you should do it my way; I'm just saying I'm happy to inform. I think that inertia of bureaucracy—and I don't blame governments per se—is a really important inhibitor to future change.

The CHAIR: That's very helpful. Thank you, Mr Douglas, for your time and your evidence.

(The witness withdrew.)

Professor WARWICK GIBLIN, Adjunct Professor, Faculty of Science, Agriculture, Business and Law, University of New England; Fellow, Environment Institute of Australia and New Zealand, sworn and examined

The CHAIR: I welcome our next witness, Professor Warwick Giblin. Would you like to begin with an opening statement?

WARWICK GIBLIN: Yes, I would, Chair, if I may. I offer my advice through a consulting process. Firstly, thank you very much for the opportunity to be here today. It is a special day, of course, being International Women's Day. I would also like to acknowledge the First Nations peoples, who have lived on this land for 60,000 years, and also all peoples of Australia, present and future, especially the younger folk who face the daunting prospect of very significant and life-changing climate change. I applaud the Committee that you have picked up this topic to examine carefully. I welcome that and I look forward to your deliberations.

My 46-year career—it seems to have gone in a flash—has centred on the practical application of the planning system here in New South Wales. That has involved writing EISs, being a State government developer and consent authority across five projects, and being an advocate for farmers and rural councils on mining and energy projects, including the Central-West Orana REZ. I would be only too happy to take questions on that. If I may, there are four key messages I would like to leave. Firstly, the planning rules ought to provide communities with a fairer, more inclusive voice. Communities want a planning system that they feel part of, where they feel they're going to be heard and one that they can trust, not one that imposes decisions from on high.

Secondly, major developments are typically framed by engineers and financiers behind closed doors and then "announced and defended". The promise that members of the public can have an influential say via a submission in response to an EIS is naive and simply raises false hope. There should be no surprises, therefore, that communities get upset when they are blindsided by announcements. The system ought to be changed to meaningfully involve key stakeholders in the formulation of a project up-front—and I mean up-front.

Thirdly, we ought not allow the market to be the key driver in managing natural phenomena, such as water, carbon, biodiversity and, more latterly, energy. These things—certainly the first few—in my view, need to be driven by environmental scientists. I think it's incredibly important, with the marketplace playing such a key role in all these matters, that there be a strong and visible and transparent regulator. Fourthly and lastly, the bureaucracy has been politicised by virtue of the senior executive service contracts removing job security. I suggest we need to change the system so the public service is encouraged to provide independent and frank and fearless advice. Thank you, Chair. I look forward to probing questions.

The CHAIR: That's a very strong submission, with some very clear contentions about what we can and should do. You say we need a planning system that people can trust, that is fairer and that they're more involved in. I note that you say what we currently have is, "We'll seek your opinion later down the track." This is something I've been very familiar with in terms of just how unfair and at times insulting that feels to local communities that are the receivers of impacts. How do you see things could be improved and what does early engagement really look like?

WARWICK GIBLIN: It's an incredibly fraught topic. I acknowledge that. But I do think it's disingenuous to think, based on the current system, "Don't worry, if you're upset about this development, you can put a submission in." In my view, based on my experience, that is way too late. I think the system needs to be changed to require developers to engage with key stakeholders in an area during the conceptual design stage of a project. The developers will say, "That's no good. It'll be out there in the media and everyone will be jumping up and down." But I think it's far more important to try to win some support from key components who are in the community. At the end of the day, it's the community that wants to have some say in what occurs and what's developed in their local area. Let's give them a better chance.

It seems to me that the system we've got at the moment is heavily skewed—and I would suggest biased—towards enhancing and promoting development. That's fine for the developers, be they State or major developers. But if we want to be fair dinkum about having a system that acknowledges and accepts, in essence, that it's all about the community—at the end of the day, it should be about environmental, social and economic justice, not short-term jobs and economic growth. I think, with the climate challenges facing us, if we need any more assurance or confirmation that we need to better balance the priorities and make holistic decisions involving social and environment as well as economic, then it's staring us in the face right now.

The CHAIR: As I understand it, you're talking about going and purchasing—let's talk in economic terms—a social licence and that that is your fundamental first step. You are not alone in this view because I know there have been plenty of reports over many years, but your view is that third-party merit review processes should be allowed for State significant development, State significant infrastructure and critical State significant

infrastructure projects—the ones that we know to be the most environmentally and socially impacting development. Do you think that, as part of suggesting those merit appeals should be open, that end point would be a big driver of the front loading of the system and getting that social licence? Would that be a system that you would see as being quite complementary to make the motivation to have the impetus to go out and get that social licence early?

WARWICK GIBLIN: Chair, I think that's an excellent point you raise. Yes, I would concur with that. We do live in a democracy and I think we need to see greater transparency and accountability in these decisions, particularly for these major developments that we're talking about here. They are substantial and they are material. Therefore, I think it's crucial that we allow the provision and the capacity in the system, in this democratic country, to scrutinise, at law, these decisions.

The CHAIR: The absence of merit appeals: Do you think that does provide a system that disincentivises that accountability and the transparency around the proponent's interaction with the local environment and community—because there's ultimately nothing the community can do, I suppose?

WARWICK GIBLIN: Yes, you raise a good point, Chair. I think if the Act espouses to deliver fair, just, equitable decisions then by definition there have to be checks and balances and accountabilities in the process. At the moment for, say, SSD—State significant development—projects, the developer puts a scoping report in and then secretary's environmental assessment requirements are issued. The proponent is putting in that scoping report. It begs the question: Who other than the developer and the DPE has been privy to those deliberations? Okay, maybe a landholder has struck a deal with the developer, but what about the community within which that facility, that development is to be placed? Quite frankly, we need to get fair dinkum about the EP&A Act. I think it does need some root-and-branch change for us to be able to put our hand on our heart and say, "Yes, this Act is centred around the community." I would contest that at the moment it is not centred around the community; it's centred around enhancing and promoting development.

The CHAIR: Just on that point, sticking in that accountability frame, the developer or the proponent would have access to merit appeal rights if they're not happy, whereas the community wouldn't have that access. Therefore, the notion that early on in the system you've got the secretary's environmental assessment requirements and the proponent and the scoping, that all happens outside of the community framework and, of course, it doesn't matter because there's no mechanism—well, as you say, there's a mechanism for the community to be unhappy at some point and then their unhappiness just disappears into their own void. That's kind of the system as it is at the moment.

WARWICK GIBLIN: The nub of the issue, Chair, is the community in effect is powerless until it's too late. You're fighting a rearguard action to get accountability and a voice to be heard.

The CHAIR: When you say a "root-and-branch reform"—they're terms I often use, actually; I think I used them only a couple of days ago talking about something else—at the moment, where we're placing environment, social and economic consequences of the climate in catastrophe at the centre—

WARWICK GIBLIN: Yes.

The CHAIR: At the moment, as I understand it, the only considerations, in fact, of climate change come under the sort of public interest or the idea that we have to look at ecologically sustainable development. We heard from the department and the departmental representatives earlier that there's lots of incredible work happening to map out what the catastrophe is and how it will impact on local environments and local communities. But when it comes to actual development and the approval process, these are just things you consider somewhere along the assessment pathway. Your contention is they've got to be somewhere at the very heart of the decision-making?

WARWICK GIBLIN: Yes, Chair. I've been involved in this legislation since it started. Obviously we've had add-ons and we've had slight variations over time, but I would contend that it is now a wonderful opportunity to do a reset on this legislation and put the risks associated with climate change—to be frank, "climate change" as a terminology doesn't do it justice. We are facing a major climate emergency. The potential is for catastrophic consequences here. The oceans are getting warmer. There's going to be a time when sea level is going to rise more substantially than it has to date. I think it would be prudent for the State to be getting on the front foot and being proactive about how they're going to address that scenario of substantial sea level rise.

The CHAIR: I think we're hearing from a coastal engineer expert on the impacts of coastal erosion. Your contention is that without root-and-branch reform, we don't have the current tools to deal with the sort of impacts we're facing?

WARWICK GIBLIN: Based on my 45 years of experience, I have little confidence that the current planning regime will safeguard us to the maximum possible moving forward over the next couple of decades with the impacts of climate change.

The CHAIR: Just taking you to your current work, if it's possible, and to the extent you can, you said you're doing work—it was in your submission, I think—about the Orana renewable energy zone. Obviously this is very important work in addressing the transition to renewable energy. What are some of the things that you're experiencing in relation to the way that new precinct is rolling out across the landscape and how local communities are impacted?

WARWICK GIBLIN: I think what you've got there with the Central-West Orana Renewable Energy Zone is a classic case study of what I've just been articulating, in terms of the key elements of conjecture. Just as we had substantial mining developments in the Hunter Valley in the '80s and '90s and the issues around cumulative impact assessments—and that there was a paucity of work done in that space—I would contend, based on the Central-West Orana Renewable Energy Zone across three councils, we're talking 40 major generation projects, including a transmission line. My experience would suggest that, again, we still are failing to adequately address and comprehend the cumulative impacts of all these projects, particularly on local roads. What does it mean for social services?

The Mid-Western Regional Council, for example, has tried to fill this gap by engaging a major consultancy to look at the cumulative impacts. They've already flagged issues around social services, like inadequate emergency services, fire and ambulance, and inadequate police numbers. What'll that mean? What is the State Government doing about that stuff? Emergency beds, doctors, right?

There's going to be in the order of 10,000 more people coming in there during the construction phase between now and 2030. These local roads, there's going to be huge numbers of oversize, overmass vehicles. Many of these roads are local roads; they're not the flashiest highways that you've ever seen. I do think cumulative impacts are a major issue, primarily because we have to avoid local communities carrying costs that are directly attributable to these projects.

The Hon. AILEEN MacDONALD: I wanted to ask a question about page 3 of your submission, at 4 (a), with regard to small councils. Often you'll find that in the council planning space, as you said, they may not have the staff, or the position is unfilled for, say, six months or more. You have suggested that there's a need for an urgent injection of funding. What other kind of ways would you see that they do have equity of service or equity in their planning decisions if there isn't this urgent injection of funding?

WARWICK GIBLIN: How else? The challenge is certainly a characteristic of regional councils.

The Hon. AILEEN MacDONALD: It is. And sometimes people don't want to go because it might stymie their career progression if they go, so they choose not to go. There has to be other ways.

WARWICK GIBLIN: We face the same challenge with GPs, for example, going to the bush, and teachers. Again, we could try to be creative and provide some economic incentives or the like and get the professional associations to do more in that space—so too Local Government NSW. I think a greater effort could be made to try to facilitate that because it is a huge issue in the bush. I have worked for 20 rural councils and one of the areas where they have been short on skills is negotiating planning agreements, for example. That's a really important aspect of major developments in the bush where local government does have an opportunity to, in some ways, offset the costs associated with these major developments. Yes, it's a big issue. Maybe the planning industry per se could do more in this space.

The Hon. SCOTT FARLOW: If I could ask a follow-up on that, is there an opportunity for the sharing of resources across regional communities, to be able to supplement and support that need for those skills?

WARWICK GIBLIN: Who would be sharing? Who's going to provide the resource, would you think?

The Hon. SCOTT FARLOW: This is part of the challenge and the question in terms of one individual council can't necessarily afford those resources but, maybe, in a regional organisation of councils or something there would potentially be the ability to fund some of those resources.

WARWICK GIBLIN: I think organisations—say, DPHI, the department of planning—could potentially loan or second some of their staff to some of these small councils. In the REZ, there's two regional councils. There's mid-western and Dubbo. They've got a fair amount of horsepower. But when you look at the Warrumbungle Shire Council, it's quite a small council, relatively speaking, but it's carrying the same REZ demands and loads as the other two. I think DPE could provide some assistance in that regard by seconding some of its personnel to councils like Warrumbungle and others.

The Hon. AILEEN MacDONALD: That's important because, like you said, the community needs to be part of that decision-making process. I'm aware that Penrith council, a few years ago—and it was all because of COVID; there were some silver linings with COVID—was able to share with a rural council. I think he was visiting and got trapped, so he had to work from Penrith. There was that opportunity where metropolitan councils could assist in that way. Perhaps that's something that we could look at as well—not you, but us.

WARWICK GIBLIN: I think they're very good ideas. My working has been with councils west of the great divide and, essentially, they all could do with more horsepower.

The CHAIR: You referred to the cumulative impact. The department, from memory, has done some cumulative impact guidelines or assessment guidelines.

WARWICK GIBLIN: Guidelines, yes.

The CHAIR: Are they applicable? When you say the work is not being done, what needs to be done?

WARWICK GIBLIN: Can I say a call out to EnergyCo. EnergyCo is, in essence, the statutory planner for the REZ, but it's also a developer in the REZ. To be fair to EnergyCo, they foresaw that this was an issue, and they put out a document early last calendar year. They made an attempt to address some of the cumulative impacts. Based on feedback I have, they tried, but I think, to be fair, it fell short of expectations. Aside from EnergyCo's efforts, it remains a huge issue for local government in the REZ to have these things addressed, like roads. Things that have emerged more recently is water. What's the water supply? All of these facilities, particularly the wind farms, are going to need a lot of water. They're also going to need a lot of gravel. Where is this coming from? What is happening with the waste?

It was somewhat into the process of approving or assessing all of these projects, and then it dawned on the Government that there's not enough beds. If we're going to have 7,000 to 10,000 construction workers in here, where are they going to put their head at night? Suddenly, all of these major developments were required to have, as part of their development, temporary worker accommodation facilities. There is going to be half a dozen, give or take, in the REZ pursuant to those. But it is an issue. If you're a local council and you have all these trucks going up and down—it's not like a mine, where you have got, say, one mine in an area. Here, there's going to be five, six or seven vehicles from seven different developments potentially going up and down the same roads. How are you going to hold that accountability on who is paying for the damage to the road?

The CHAIR: Interesting. Unfortunately, our time has come to an end. Is there anything final you would like to say?

WARWICK GIBLIN: Following on from what the previous speaker said, Committee, if I may, we're fiddling while Rome burns. We have to make some major decisions here if we are going to get on the front foot to address the profound and substantial changes pursuant to climate change that are facing us now and are going to become even more significant. There is an enormous opportunity, if I may suggest, for this Committee to make a landmark pronouncement, arising from your report, as to what we can do to cut through and really engender fundamental and substantial change.

The CHAIR: Thank you, Professor Giblin.

(The witness withdrew.)

Dr JENNIFER KENT, Senior Research Fellow and Urbanism Discipline Research Lead, School of Architecture, Design and Planning, University of Sydney, affirmed and examined

Professor NICKY MORRISON, Professor of Planning, and Director, Urban Transformations Research Centre, Western Sydney University, affirmed and examined

Dr PATRICK HARRIS, Senior Research Fellow, and Acting Director, Centre for Health Equity Training, Research and Evaluation, University of New South Wales, affirmed and examined

The CHAIR: Welcome to our next witnesses. Would any of you like to start by making an opening statement?

NICKY MORRISON: Thank you for giving us the opportunity to provide evidence at this inquiry. We would like to acknowledge the traditional owners of the land, the Gadigal people, and we pay our respect to the Elders, past and present. Jennifer Kent is a leading expert in the intersection of urban planning, transportation and human health, with eight years of professional planning experience prior to her 15-year career at the University of Sydney. Patrick Harris is a leading authority with 15 years of research experience at the University of New South Wales and the University of Sydney on integrating public health with urban and regional planning, along with infrastructure appraisal.

I am Nicky Morrison, a leading expert in collaborative planning but also community engagement, dedicated to delivering sustainable, equitable and resilient communities. I had over 27 years of experience at Cambridge University prior to taking up my professorial post at Western Sydney University in 2019. Patrick and I also serve as expert advisors to the Greater Sydney Heat Taskforce and the Western Sydney Health Alliance, and we sit on the executive committee of the Healthy Populations and Environments platform within the Sydney Partnership for Health, Education, Research and Enterprise.

The reason that we are stressing these partnerships is that today we will emphasise the critical role of cross-sector collaborations in addressing climate change. We all work extensively with all tiers of government, industry and societal partners across New South Wales, but also particularly in Western Sydney. This region is one of Australia's fastest growing but it is also experiencing firsthand the devastating effects of climate change, which are now an acute human health issue faced deeply and daily by our community.

The urgency of climate change, now epitomised by the direct impacts on human health, surpasses any single legislation or government level. Solutions lie in uniting all levels of government, industry and the community in an ongoing collaborative effort. Before effective partnership can form, we need a strong legislative mandate—that is essential. Without mandated consideration of climate change, the risk is ultimately shifted onto communities who have the least voice and resources, but are the most affected. So we urge this Committee to include a climate change object in the Environmental Planning and Assessment Act, requiring all planning authorities to address climate change in planning instruments and strategic plans.

If climate change is not strongly articulated and embedded in State-level planning policies, councils face challenges when implementing local policies politically, but also from industry, and are powerless to deliver necessary change. It would also give a lot of consistency across councils. We do acknowledge the Act's objective of ecologically sustainable development, yet we will elaborate in this evidence how, concurrently, economic interests have outweighed social and environmental concerns. Integrating climate change into the Act can promote a balanced approach, prioritising economic prosperity alongside environmental protection and the health and wellbeing of our communities.

Yet, regardless of how extensively legislation is rewritten or carefully crafted, its effectiveness hinges on broad political, social and economic acceptance of its principles. Legislation lacking broad acceptance faces challenges and dilution. We have experienced that in New South Wales. Amendments to gain support or appease opposing views complicates it, resulting in poor implementation, and undermines the achievements of the actual objectives. It is critical that we raise awareness of the planning system's role in climate efforts, foster greater collaboration between State and local governments, break down barriers and silos, and strengthen partnerships among all stakeholders. Thank you.

The CHAIR: Thank you very much. I am interested to know more about your contention that—I think I'm hearing—language and the phrases really matter in terms of the legislation and the policy framework. We have heard from government that climate change is a consideration, it's factored in, it's in all of the strategic documents, there is work happening across government, but then we've also heard from practitioners who have been literally at the forefront of the system for 40 years—someone who started work on the day the Environmental Planning and Assessment Act commenced in 1980. It was wonderful, actually. The evidence we heard from them is that this system is not working and it is prioritising and facilitating development at all costs. So I am very

interested to hear more about the language that you are promoting or suggesting should be in the law and the policies that we are implementing.

PATRICK HARRIS: It is interesting you pick on the language. I think it is important. We did some work about a decade ago, Dr Kent and I specifically, looking at how we could include health and wellbeing in the objects of the previous legislative review from 2011 to 2013. We got close to getting health and wellbeing in the objects, but essentially it fell over because the community were really concerned about the weight of the language in that reform focusing not enough on a balance in the system. So despite ESD being an objective and despite things like health and wellbeing—usually in buildings rather than thinking about population health, which is our interest—being in the legislation, it is insufficient in terms of the design of the legislation but also the implementation of that legislation if the language isn't right and isn't then supported by policies and practices around that legislation.

I have a couple of points I would like to raise around some of the language and how that then plays out across those things I was just talking about. The 2021 amendment to the Act includes a brief mention of cumulative environmental effects and, similarly, in section 192, about the content of environmental impact statements, includes "(c) an analysis of feasible alternatives to the carrying out of the development", and "(f) the reasons justifying the carry out of the development", and then it includes a note about cost-benefit analysis. And then also, in part 8, infrastructure and EIA, it talks about the determining authorities consider cumulative impacts.

So that's in the 2021 amendments, right? But when you look at the guidance that was produced about cumulative impacts that came out around the same time, there is no mention of climate change and there is no mention of human health, and both of those things are major cumulative impacts. So there is no arm for getting what the legislation is asking for into practice. Similarly, we feel that there is an absence of real commitment in the industry to take on what's in the legislation, if it's in there, so the task of—and it was interesting that these previous experts said the same thing. This is a real opportunity, we feel, to get the language right, change the architecture of the legislation, so that the implementation can be facilitated in the face of what's a really dramatic point in our history.

The CHAIR: Your suggestion about getting the language right—actually, can I just go back to when you said—you've intrigued me a bit. When you said that the community didn't accept the 2011-12 proposed changes at the time with the inclusion of health and wellbeing, how do you mean the community didn't accept that? What do you mean by that?

PATRICK HARRIS: Sure. The weight of the negotiations at that time, which had been—and, Jennifer, you might want to speak to this a little bit as well.

JENNIFER KENT: You go ahead and then I can add if there's anything to add.

PATRICK HARRIS: Sorry—were really oriented, in the community's mind, towards economic development at all costs. So lip service was what the community felt—to community engagement. But the real crux of the drafted legislation at that time, the community felt, weren't acknowledging enough the need to engage around sustainable development and the balance in the system. What I'm talking about is that planning is always going to be contentious and that is, in a way, the reason why you have planning. But when the balance is out of whack in terms of focusing on just, say, economic over and above social or environmental, that's when concerns really start to come out. They become real concerns for people in the community and that's what happened at that time, to the point at which the legislation failed.

The CHAIR: I understand now. I get the idea. There was that departure away from ESD and we were just looking at sustainable development. I understand now. It was the concern that we weren't being genuine and considered about what the community wanted in a planning system.

JENNIFER KENT: Yes, it wasn't the health object per se that resulted in that—or that the community opposed. It was the overall amendments, I think.

The CHAIR: I understand. From your expertise, do you think that—I think I'm hearing the time is now. What are the drivers or the things that you're seeing in your fields other than the obvious—fires, floods, pests and everything that we've seen over the past few years. What are you seeing to think that now is the time to start addressing and focusing a planning system on these very contemporary, real and future factors that we have?

NICKY MORRISON: I mentioned that Patrick and I are on the Greater Sydney Heat Taskforce. Heat is not mentioned anywhere in the planning system. We have extreme heat in Western Sydney, daily affecting communities who have no voice. This is our opportunity to reshape the planning system and it is absolutely critical. You're right, the words are absolutely—we have to firmly say in the objects that climate change matters. It is a duty for consideration. And then, later, the details can go into—the SEPPs already consider it—the LEPs

and all the other planning instruments. The details go there. But we have no clauses about heat requirement, no standards. That means that councils have no teeth when they have opposition against industry who wants to build things with black roofs, no green spaces. There's nothing they can do. We must make it much firmer, right at the top, legislative mandate. We have a taskforce, the Greater Sydney Heat Taskforce, but it hasn't got legitimacy to act if we don't have it really firmly as legislative mandate.

The CHAIR: Is it correct, Professor Morrison, that we technically still can put black roofs on houses in Western Sydney? I think there were some contentions that we should stop doing that, but we can still do that at the moment?

NICKY MORRISON: Yes, that's right. We have to get firmer with our regulations.

The CHAIR: On that taskforce, is there a focus on natural, green infrastructure and the idea that that's an imperative and that needs to come more to the forefront of the planning system?

NICKY MORRISON: Absolutely.

The CHAIR: I think you intimated through SEPPs et cetera. Do you think that the instruments are still the mechanisms to operationalise these real things in our environment—social and natural—and built environments?

NICKY MORRISON: I was sitting in the earlier session when you were asking that of government: do we need a climate change SEPP. You're right. It has been listed in a lot of the SEPPs. We did actually have the Design and Place SEPP, which got disbanded. That ought to be resurrected. That had all the right ingredients within it about green infrastructure, about light-coloured roofs; it was excellent.

The CHAIR: That's right. Why did we not do that? What happened?

PATRICK HARRIS: We don't know. We don't know the inner workings of government.

NICKY MORRISON: There was politics involved—political will at the time. I think the time is right now. I think there is much more unity within parties to see this is an absolutely critical issue. Politics—there's also a very strong property lobby we all know of in New South Wales which can put a lot of force onto government. But there is a lot of, also, innovative developers out there who are willing to demonstrate the long-term benefits of sustainable homes, green infrastructure and light-coloured roofs. A lot of innovative examples are actually happening in Western Sydney. We closely work with those developers, so it's not a case of viability issues or anything. It just has to be a hard, top-level push that this must happen, because the communities that we're representing here are telling us—the councils are telling us—they don't always have the voice.

The CHAIR: Are you suggesting, therefore, that we have this kind of centralised system but local communities and councils are not finding the support and autonomy that they would need at the local level? Was that what you were suggesting there?

PATRICK HARRIS: Similar to the previous expert you had, I think there is a resourcing issue around councils. I think one of the problems with the current system is things like what began with part 3A back in history really did take out local councils in terms of being a major player in the system and how to influence decisions in the system. I think that still plays out today that councils feel like they're under-resourced and really don't have much of a voice in the way that the planning system then gets implemented.

JENNIFER KENT: Just if I can add to that. I think that the councils are mandated to take into account what is set at a State level. Obviously that has an extreme impact on them in guiding their decision-making, but it also has an extreme impact because it gives them the mandate, it gives them the teeth to be able to push some of these things forward that they know are what we should be doing right now.

PATRICK HARRIS: Interesting for me, the balance in the system, again, is what seems to have fallen away somewhat. I think councils are a part of that balance, not forgetting that councils and local government are the closest layer of government to their communities. They are a resource for people to work with across the layers of government. It just seems to me that the answer is to better resource councils, to get councils to engage better with communities around development as part of the workings of government. Everything seems, at the moment, in the last few years, to have been centralised to the point when all the decisions come out of the department of planning, and yet local government has very few opportunities to really influence those decisions. That may streamline the system but, again, the lack of balance seems to be the consequence. I don't have any solutions to this. I realise it's a difficult and contentious issue. But I think it is a really important layer of government to empower to connect back with communities around what developments are really happening. The State Government just can't do that by virtue of being State government.

NICKY MORRISON: We can give on notice a piece of work which Patrick and I were working on with Western Sydney Health Alliance—one of the partnerships we mentioned—and that's with the eight councils in Western Sydney. That was very much looking at how they work together and collaborate better, and they do, and share centralised resources together. They're better together, in a sense. That collaboration is absolutely critical, horizontally but also vertically. We are not necessarily suggesting that councils—you devolve power to them, but you need to recognise their own strengths as well. As Patrick rightly said, they have intimate knowledge of their communities and direct engagement with the residents so they are in the right positioning. But we do need to build capacity within that cohort of the government and work more closely with the State and be consulted in a much more effective way with State government as well.

The Hon. SCOTT FARLOW: I want to pick up on that council issue. It's a double-edged sword in a way. At one point, you would applaud councils that may be taking a very progressive approach on this, I take it. But then there would be other councils that might thumb their nose to some of these standards and say, if they have full autonomy, "We are not going to implement that here." In a sense, State government needs to come into the equation to set a baseline. I think we would all probably agree on what that should be. Then the question goes to how that then becomes implemented. Dr Harris, as you were saying, it is a resourcing issue. We see that local government, generally, across the board, is facing financial sustainability issues. How we actually resource this and pay for it, in terms of extra resources for local government, becomes the question. Do you have any views how councils, if they were further empowered to make these assessments, could actually have some sort of cost recovery mechanism or how that would apply?

PATRICK HARRIS: I can quickly respond. I'm not an expert on the costs around councils. One of the things that came up in a piece of work that we can put on notice for you is that Professor Morrison and I did some work looking at the eight councils in Western Sydney and their focus on climate change strategically. What came up was actually there is a reliance on short-term grants rather than long-term funding support. Those are the sort of things that councils then become so caught up in—this short-termism. A response like climate change that needs that long-term strategic support across sectors and across partners and with different layers of government is almost out of their hands because of this short-term funding issue that they face.

NICKY MORRISON: With the grants, it's the ones who are very good at writing the bids who win them, when it's not based on evidence of need. With the grants as well, they sometimes don't want to take the grants because it's up-front capital costs when they actually can't afford the ongoing maintenance and operational costs. There needs to be much more innovative ways. We are doing a project with a whole load of different stakeholders about how to do innovative finance models with green infrastructure and how to pay for it because councils aren't able to upkeep their own green infrastructure, which is a critical issue. That's bringing in different states of government. We've got the Department of Planning, Housing and Infrastructure alongside Landcom, alongside the Urban Development Institute of Australia which is willing to come into this co-funded model, and the councils. There is an innovative way we can pool together and share resources rather than just putting it down to one council doing this. When you talk about cost recovery, it's how you use resources more effectively. That's the critical way. There's a lot of duplication of efforts as well. You could be much more efficient in the way you do this and you would get better planning outcomes as a consequence. We need much more innovative thinking about how we finance things.

The CHAIR: It's interesting you mention that. Sometimes when State government is asked to do something, it can do it very well. The current draft valuing green infrastructure and public spaces framework is being developed at the moment. I will naturally go and have a look at it all, but I am sure the valuation methods are very useful and very helpful. But it's then about how do councils use that and implement that. If it's just another great document telling us great things, that's fantastic, but how do you operationalise that and how do local governments access the capacity to then implement these things and influence those developers in their local government area to uptake and make these things actually happen? Dr Kent, this might be something for you. I am curious about the changes that we need to embrace to be more resilient and climate ready in terms of heat and those factors. I note in the submission overall there is a proposition that perhaps the codes are not helpful or that the codes are not functioning in the best way possible. Can you explain a little bit around that?

JENNIFER KENT: Yes. The complying and development codes as they now stand are not necessarily in line with what is considered best practice in terms of construction and liveability, and so forth. Rectifying that, you would need to not go much further than look at that design and place SEPP, which had strong and quite detailed recommendations as to what better design looks like. But I do want to point out that addressing climate change through the planning system is not just about housing. I know housing is a hot topic at the moment. You were saying what is the urgency around that, and you don't need to look much further than our constrained housing system and the pressure to develop. It's also, though, about the way we move about cities, so transport is also a very big issue. I don't want the debate to get lost on just the provision of housing. The provision of other sorts of infrastructure—that includes transport to social and cultural infrastructure, and so forth—the planning system has

a lot to do with as well. I think by concentrating only on housing it becomes a bit of a really useful distraction than looking at some of the other greater systemic issues with the way that our cities are planned and managed that are very influential on climate change.

The CHAIR: This Committee is looking at the TOD SEPP in a different inquiry process. It is interesting that that is where all the front-loaded effort is at the moment and clearly you are stipulating that is not necessarily the best approach. We have to look beyond what it means to just be delivering housing outcomes at the moment.

JENNIFER KENT: Absolutely. Climate change is experienced universally and it's embedded in all systems within our cities. If we don't think of our cities as systems, where all of those things are interconnected, we're not going to address what we need to address for mitigation or adapting to heat. My research is very much on the links between car dependency, human health and climate change. By just addressing housing, we are not doing anything about car dependency. We could have perfectly constructed very sustainable housing out in Western Sydney, but if the people living in that housing are forced to travel long distances, not just for work but for all of the other things that they need to do, then we are still going to be contributing to that 15-plus per cent of carbon emissions that come from our day-to-day transport practices.

PATRICK HARRIS: If I could add something to that, going back to your original point about language and how we use language in legislation, in particular, there is a massive evidence base on the links between what Jennifer is saying and human health. I thought I would just table a couple of documents. One is the *COP28 Declaration on Climate and Health*, which would be worth looking at. That talks about a range of action areas, including building more climate resilient health systems—which would be infrastructure—strengthening cross-sectional collaboration, and focusing on increased finance for climate and health solutions.

I would also like to table a visual for you, which explains the connections between climate change mitigation and what we call co-benefits for health. That crosses things like better mental health, fewer deaths from heat, cardiovascular diseases reduced, respiratory diseases reduced, lower rates of cancer and lower rates of obesity. If you address the things that Dr Kent was talking about, and the system takes seriously the things that Dr Kent was talking about and what we are talking about today, you can have these co-benefits for health and wellbeing across the population. That was really the reason why, going back to that 2012-13 objective, we pushed hard for having that health and wellbeing objective in there, because provides measurable outcomes for the system. The legislation is quite process heavy, but we feel that having this evidence base to work towards is a really important thing.

Going back to your point, is the time right? I think one of the things that can happen—we have been looking at this for around 10 or 15 years. Climate change wasn't allowed to be talked about in 2020. We literally were not allowed to talk about it, and that has played out particularly in those cumulative assessment guidelines that I talked about. You can see that climate change is not there. I think there's a connection from global down to local now in terms of understanding the importance of climate change and the importance of doing something about climate change. Your task is fantastic because you have an opportunity to really link that New South Wales work into that global understanding of the real problems we've got in terms of shifting very entrenched systems towards doing something proactive in that climate space. I think the health evidence talks to the positive outcomes of doing that kind of thing too.

The CHAIR: Thank you, that's incredibly helpful. On that, talking about those co-benefits and the economics around that, at the moment we have a system where we're focusing on the social, environmental and economic benefits of a project or the analysis of those factors in a project base. My understanding is the system is very entrenched about what we consider when we're asking proponents and plans to look at the economics. Do you notice in your work that is a very entrenched way? What sort of things can we do to free ourselves of that kind of entrenchment?

NICKY MORRISON: I think the NSW Treasury is doing work now valuing green infrastructure and actually looking at non-monetary benefits. It's interesting when you go back, green infrastructure is often considered "soft", and everyone focuses on "hard" infrastructure. Landscapes are soft infrastructure, so change the language, even. It is the importance of language. I think the NSW Treasury is acknowledging that the cost-benefit analysis has to be wider than that. It's not just hard and tangible but non-monetised benefits as well. As Patrick was saying, the co-benefits need to be unravelled a bit more carefully.

Also, as academics we will always say you need to do ongoing monitoring and evaluation, longitudinal research to see the difference an intervention will make on the outcome and measuring it properly. Again, that needs resources, but it's absolutely critical. Often we introduce things but we don't see the outcome of it. You need that long-term measurement process happening, which is what we as academics often offer—that rigour behind it—so then you've got the strong evidence as well. How do you measure, in a cost-benefit analysis, non-monetary benefits? We can provide advice there.

JENNIFER KENT: I think it's important. These are not necessarily non-monetary benefits. The cost of not doing this is absolutely monumental. You were saying about how the councils pay for this. If we think about the cost of car dependency, for example, if we started to think about that as being part of a cost-benefit analysis of a road investment—the cost of having to pay for physical inactivity, carbon emissions and other health impacts and climate change impacts associated with private car dependency—it would very quickly add up to detracting from the appeal of that road. If we could get a more realistic understanding of what the costs and benefits of these projects are in a really long-term way, I don't think we would be looking to local government to be paying for some of these different programs.

PATRICK HARRIS: If I could add, in our research—I think it was part of your question—we've been looking at environmental assessments of very large infrastructure for probably about a decade now. The essential finding that we've come up with is the point at which the public gets engaged, which is the environmental impact statement, is way too late. I refer to the previous expert, who was talking about engaging the public earlier on in the system. Really engaging the public in the dynamics of how a business case is developed would be a really important step forward. At the moment, what happens is that communities are only brought into a decision at the point when the decision's already been made. That, necessarily for communities, brings a lot of discomfort. I haven't got the solution to this.

But again, thinking about the previous expert, the idea of business cases is so powerful in the way that government tends to make choices and decisions about what to invest in. There really should be a more open acknowledgment of the detail of those business cases than we have. They're very hard to find. When they are referred to in the environmental assessments, it's usually like a page or two of very opaque language around which choice was made at what point. There's nothing about what the actual inputs to those decisions were on the table in terms of data, evidence or even values and assumptions. I think making that business case point much more open to public scrutiny would go a long way for people to understand what's happening in the system.

The CHAIR: I think I heard an economic expert many years ago refer to that part in an assessment as, "Oh, that's where the department and the proponent just go into a TARDIS and something happens and they come out."

PATRICK HARRIS: And it spits out with an option, yes. But that is what does happen. Business cases are a structured process. The Federal Government has great guidelines around transport business cases and development linking back up to strategic planning, not just going back down into an option. There's a known quantity about what goes into a business case; it's just that they're not publicly available, mostly. While we need to be careful about community engagement being the panacea at all costs, for the communities to understand what's happening around infrastructure provision and why decisions need to be made and engage in those decisions, would be a really good opportunity, particularly around things like climate change and health and wellbeing.

NICKY MORRISON: We all do a lot of work on community engagement. Patrick is absolutely right. You bring them earlier into the process, the community, but also you must be careful not to raise expectations that we then don't deliver. They put their time and effort into these engagement processes, but then if we don't make change, you raise expectations. If the agenda is already set, it's very difficult to encourage people to continue to be involved.

The CHAIR: Is it the case, then, if you're looking at the system, that one of the very effective points of early engagement is at that strategic level and the community vision level rather than the project-by-project level? Is it both or is it all? Or is it all the time? What's your view on that early engagement?

PATRICK HARRIS: I can jump in. I'm thinking of a balance between what sort of advice you need from the community and what the community has got the capacity to provide input to. The challenge, from our research into environmental assessments, is that the community input tends to be tokenistic and it tends to come too late. Again, I can send a paper through to you if it would help. We were looking at WestConnex and the environmental assessment around WestConnex. The report from when we interviewed community members was that they were literally told, "This is the best decision for you. Can you please provide some input into how that decision is going to play out?" Immediately, people's distrust of what's going on comes to the fore. In that case, it probably would be what's the strategic purpose of WestConnex? How do we engage with the community in the strategic purpose of WestConnex? And then go down to thinking about how those specifics around projects play out.

NICKY MORRISON: I agree. When we use the word "community", we must remember it's a very diverse group. They often say that the usual suspects come forward to give their view, but it's actually how you get those with the least voice that's absolutely critical. There's so much written on it, and we've written papers on community engagement internationally as well. You have got to make sure that you give feedback and that it's a

dialogue that you're creating. There are so many different methods you can introduce. It costs time and effort for everyone, but you have got to make sure it's effective and meaningful, that it's a dialogue and that you get the representation across. Otherwise, it's not a genuine form of consultation.

The CHAIR: Going back to some evidence that we heard earlier, on that theme of monitoring and following through, do you think that also having accountability mechanisms along the way—so one part of the evidence we've heard is that there should be appeal rights for when things are going wrong in the system. At the moment, we have a system where proponents have lots of appeal rights and fulsome appeal rights—there is a whole court dedicated to hearing those appeals—yet communities have very little appeal rights. In fact, they pretty much have none, when you're looking at the things that are impacting communities on a daily basis and their capacity to have genuine oversight into their lived environment every day. There was a proposition earlier that it generates more impetus to engage early. I'm wondering if that is something that you've considered. If there is this ultimate holding-to-account mechanism, it not only would, in and of itself, have an impact at the end but would drive better behaviour earlier on because, if it's wrong, then it's inevitable that you would be challenged at the end. Is that something that you've considered in assessment and public community engagement?

PATRICK HARRIS: I should say I haven't. I can take that on notice and look at some information around that. Jen, maybe you've looked at that.

JENNIFER KENT: No, I haven't considered that.

NICKY MORRISON: I think it's an excellent idea. What we're also trying to intimate is that it needs to always be transparent. If you overcomplicate things, it means the community will probably back off a bit more. But I think what you're suggesting is a good suggestion. We can look into this further as well. But it's the transparency, because you would still have the power imbalances of the proponents who can afford to put in a very rich planning consultant who gets well paid and who can rattle it around in lots of arguments. The dark art of viability often comes to the fore. The numbers will say that we can't do this because it's too costly or whatever. It's how you display the information transparently so that everyone can actually understand it.

The CHAIR: I learnt that the whole reason that the Hunter Valley, for example, is going to end up with lots of enormous final voids and giant holes in the landscape that will go on forever is that there was a business case decades ago to say that it was too expensive to fill them up again. It's a really interesting proposition. And then that became the implemented normal practice. I will never know whether that was the case or not—whether it was too expensive. What is too expensive? I hear that point about we get those cases put forward and where does that economics come from and what feeds into that.

NICKY MORRISON: Rather than putting it down to the community, it goes back to the councils represent the community. They need to be more strongly empowered, have greater resources and build the capacity quick for them so that they can equally represent the community very effectively in these situations. That goes back to what we said at the beginning—that you need a very strong legislative mandate at the outset so then they have much stronger teeth to deal with any challenges. If that doesn't happen, it's a really difficult situation to be in.

The CHAIR: I note the time. I could go on forever and ever. I know my fellow Committee members know that of me. Are there any final things that you would like to add that you haven't? I note your fantastic submission, with great recommendations in there. Are there any other things you'd like to add in this part?

NICKY MORRISON: We'd like the opportunity to carry on the dialogue. As we're saying, that's very important. We've got a lot of things we'd like to put on notice later and continue this discussion. We can also pass you the opening statement as well, because it was crafted by the three of us. It's careful wording to reiterate the importance of why we feel that climate change needs to be in the object of the Act. It's absolutely critical.

The CHAIR: That would be great. Thank you very much. That concludes this session. The Committee will now break for lunch. We will reconvene at 1.45 p.m.

(The witnesses withdrew.)

(Luncheon adjournment)

Mr ANGUS GORDON, OAM, Principal Consultant, Coastal Zone Management and Planning, affirmed and examined

Mr MARTIN FALLDING, Principal, Land and Environment Planning, affirmed and examined

The Hon. JOHN RUDDICK: Would either of you like to make an opening statement?

ANGUS GORDON: Yes, I would like to make an opening statement.

MARTIN FALLDING: I'll also make a short, introductory statement, if I may?

The Hon. JOHN RUDDICK: Thank you. We will start with you, Martin.

ANGUS GORDON: Sorry, would you like me to start?

The Hon. SCOTT FARLOW: I think the Deputy Chair was inviting Mr Fallding to start with an opening statement.

MARTIN FALLDING: Okay. I'll be really brief, just to introduce myself and my background. Thank you to the Chair and Committee members for inviting me to appear before the inquiry. My qualifications are in town planning and also in environmental science and environmental impact assessment. I've worked with the Environmental Planning and Assessment Act as a planner since before it commenced, so I'm familiar with the evolution of the planning process and also the pre-existing legislation that the planning system operated under. I'll just also say I do work part-time for local government as an employee and I also have been a member of the New South Wales Biodiversity Conservation Advisory Panel and the Koala Expert Panel appointed by the New South Wales Government. My speciality is in biodiversity conservation, and that's the focus, but I am talking about the planning system more generally.

In putting a submission together, I'll just quickly run through what the issues I see are, in summary terms: firstly, the competing objectives of the system and the priorities, and the lack of prioritisation of objectives; the difficulty in local environmental plans in clearly articulating objectives and outcomes, and making that happen; the standardisation of local environmental plans and the issues that that causes for the system. I also wanted to point out that a lot of the focus of the planning system is on new development, and a lot of future issues increasingly will need to deal with retrofitting existing development and renewing existing development, which is a different type of approach.

I'd also like to talk about new opportunities for local environmental plans. In my submission, which you would have before you, I have made some comments on suggested reforms to the planning system, such as disentangling the legislative complexity that exists and also the ability to prioritise climate change and biodiversity in regional planning processes. I also have suggested rethinking local environmental provisions in local environmental plans, and the scope of those, and make reference to the application of the subsidiarity principle in the planning system, which is the devolution of responsibilities to local authorities at the best level at which they are dealt with. Finally, I make some comments on the review and revocation of past approvals. I think that there are opportunities to make significant improvements to the way the system works, and my submission has highlighted some of the key issues that I think need to be addressed and the opportunities that the Committee has to inquire about those.

The Hon. JOHN RUDDICK: Thank you. Can we hear from Mr Gordon, please?

ANGUS GORDON: Thank you for the opportunity to make a representation to the Committee. I have been a coastal engineer, a coastal zone manager, for over 50 years. I've undertaken projects in all States of Australia and overseas in Brunei, Dubai, Kuwait, Indonesia, Hong Kong and New Zealand, so I've had a fairly broad experience. I have operated as a United Nations international expert. Strangely enough, I've also been a general manager of a council for nine years, which seems a weird fit but, nevertheless, that means that I've had a lot of experience with the planning Act for practical outcomes but, particularly, one of the things that I've had a lot of involvement with is hazards and hazard management in a broad sense.

By the late 1980s some of us were becoming increasingly concerned that the traditional understanding of climate variability was incorrect and that both natural and anthropogenic climate change was also bringing our understanding of natural hazards and hazard management into question. In 1991, for example, I was the lead author of this guideline published by the Institution of Engineers, Australia: *Guidelines for Responding to the Effects of Climate Change in Coastal Engineering Design*, 1991. All professionals, including planners, should have recognised the 2011 wake-up call that was given when the damage in Queensland that year was such that all Australians suffered a levy on their taxation to pay for that damage, particularly to infrastructure. In 2014 the Federal Government Productivity Commission published a report on disaster funding which indicated that the

losses in 2011 were of the order of \$4 billion—that's a capital "B"—and were expected to grow with climate change.

Just to quickly summarise my submission to the Committee, the New South Wales planning Act fails to meaningfully distinguish between place-based planning and matters associated with the management of natural hazard risk. Competent risk management of natural hazards is essential for ensuring the contingent liabilities of the community are as best as possible maintained within reasonable social and economic bounds. Natural hazards are vulnerable to climate change. It is essential that the planning Act ensures that natural hazard management provides for the State's future prosperity, not its downfall.

Risk management of potentially vulnerable development has two distinct components: likelihood and consequences. Climate change, natural and anthropogenic, will change the likelihood of events and, hence, the consequences. It must also be recognised that, in a changing climate, all of the historical, statistical, supposedly climate-based information is now invalid. It is therefore recommended that, given the social, environmental and economic consequences of failure to manage natural hazards, the Act needs to be restructured to differentiate between risk planning for natural hazards as against what I am going to call discretionary planning considerations.

My second point is, a soundly based and consistent regime of risk management for natural hazards, both present and future, needs to be included in the Act. Planning for natural hazards needs to be on an adaptability basis because of the uncertain future climate. The Act requires all potential natural hazard areas to be mapped and public private infrastructure identified, and properties within the mapped natural hazard areas subjected to relevant risk management assessments and appropriate planning. Finally, a natural hazard SEPP needs to be developed to ensure there exists appropriate and consistent conditions of consent.

The Hon. SCOTT FARLOW: Mr Fallding, with respect to some of the things that you've outlined in particular, in terms of the prioritisation that you believe should exist within the Act, what do you think should be prioritised and how do you think that should be achieved through changes to the EP&A Act?

MARTIN FALLDING: What I was trying to say was that currently there are a whole range of matters that need to be considered but it's open to planning instruments to give priority to certain issues over and above others. I think priority should be given to climate change-related issues, particularly mitigation of climate change impacts and mitigation of emissions, and also, too, biodiversity issues and protection of natural habitats because of their contribution to avoiding climate change and also to the natural systems that actually are underpinning a lot of our overall processes. Those are two priorities that should be—and natural hazard and risks also, because they are an additional factor, so they should be prioritised above some of the other issues. The important point is that a lot of the prioritisation should be done at a local level because prioritising biodiversity above housing in some areas is not appropriate, whereas in other areas it would be, for instance. It's a nuanced approach but it's enabling the legislation to actually give priority to some of the issues that are more important than others.

The Hon. SCOTT FARLOW: You would envisage that being set, effectively, that the EP&A would empower councils through their LEPs, or the like, to be able to work out that prioritisation, or by some other objective standard?

MARTIN FALLDING: I think it could be done at the LEP level. It could also be done through State policies as well.

The Hon. SCOTT FARLOW: You made an interesting point in terms of how the Act is currently geared towards new developments rather than, potentially, the adaptations or the retrofitting and the like. Would you see reform there being done through a new Act, or through the EP&A Act and some new provisions?

MARTIN FALLDING: If you look at my submission, I made the suggestion for reframing the legislation, both governing planning and also building and developing and also management, because they're slightly separate issues. I think that there are opportunities to deal with those matters of retrofitting and change through a building standards legislation framework rather than through a planning framework, which essentially is determining what happens where, what the objectives are and what the priorities should be.

The Hon. SCOTT FARLOW: In a sense, is the EP&A Act trying to do too much in that context?

MARTIN FALLDING: I think, at the moment, probably the answer to that is yes. Particularly since the inclusion of building issues into the Act in, I think, 1993, it's been trying to do too much at two different levels.

The Hon. SCOTT FARLOW: With respect to the subsidiarity principle as well and devolution at the best level, how would you envisage that would be determined?

MARTIN FALLDING: I think it's important to recognise what the subsidiarity principle is, which is to devolve the decision-making power to the lowest level closest to the effect of the decision. It will vary according

to the type of decision. I think, by default, a lot of the decisions we're dealing with in the planning space are probably local in effect and that a lot of the historical evolution of the planning system has been to increasingly centralise power, whereas the Environmental Planning and Assessment Act, when it was first envisaged, involved councils fulfilling a fairly strong role, both in the preparation of local environmental plans and through the approval processes. I think that those concepts are in the legislation as it was originally framed; it has been a lot of the practice that has changed from that. The application of the subsidiarity principle really depends on what the priorities are that are identified in the legislation and at the State level, but with the decisions falling into that at a later point.

The Hon. SCOTT FARLOW: A last question for you, Mr Gordon. You outlined a fairly extensive background and experience, both domestically and internationally. From your experience there, do you see other jurisdictions that do it better and what can we learn from them?

ANGUS GORDON: Yes. Surprisingly, one of the jurisdictions that does it very well is California in the States. Another one that does it extremely well is the Netherlands. Britain has a little bit of a piecemeal between them. But, certainly, in California, some of the legislation there is quite exceptional, particularly when it comes to hazard management.

Ms SUE HIGGINSON: Just noting that I am literally stuck in an elevator and there are some wonderful technicians out there shouting very loudly. I was wondering, Mr Fallding, if you could explain—in your submission, you put forward what I found to be quite a compelling case for simplification and reform. How do you anticipate that all of this incredible work that is happening right now within government, within the Reconstruction Authority, within the strategic planning and across all departments' teams—how do you envisage that that work actually comes through the system to the development, assessment and approvals and refusals process?

MARTIN FALLDING: That's a really big question, and I think we've seen that a lot of work in the past hasn't flowed through. I think that one of the difficulties is a lot of the work that is done at high levels is very generalised. I think at the development assessment and specific site scale, it really needs very clear interpretation of that that is meaningful for that development. A lot of the generic intent is often quite difficult to apply at the site scale without good practitioners who actually have the autonomy to balance the relevant decisions at the local scale and the competing objectives and to actually have some guidance about how they should be applying that. I think it's partly because of the broad, say, regional plans or policy work at the State level is written in a way that makes it very difficult to apply. I think it's the standard that a lot of the communication and documentation, and the lack of local understanding in terms of how it might be achieved in practice that is part of the difficulty. I hope that answers it to some extent, but it's a very difficult question.

Ms SUE HIGGINSON: The idea of distributing power and taking it from that sort of centralised system that we have right now—what needs to happen? Are you literally referring to—it would be local government? And what needs to happen, from your experience, to reinvigorate that process?

MARTIN FALLDING: As I put in my submission, there are a lot of different elements to the planning system, and I think you have to take each of them separately. But just to give an example of one thing that I have done work on recently and that is the standard instrument local environmental plan, which I think is particularly limiting for councils in responding to particularly risk issues. I think risk needs to be a fundamental part of the planning system.

In one of the attachments to my submission, I did outline a schematic approach to the planning system—I think it's figure 3 in the first attachment—that really tries to bring together all of the parts of that. If you look at the regulatory part and the local environmental plans, which are a fundamental system of the development control process in the New South Wales system, I think that's really hampered in responding to a lot of the challenges. We have a system that is designed the same across all of New South Wales. We've got terms that are not readily in common usage that the community can relate to, and it doesn't provide flexibility. In fact, it's hampering the evolution of the way the planning system can be adapted, given the issues that we know we face now. One example is reform of that whole process and, particularly, rewriting the scope and the content. The Standard Instrument—Principal Local Environmental Plan is primarily focused on land use, whereas I believe it should be focusing on impact and on other approaches that have the capacity to move us in better directions. That's a long answer to a short question.

The CHAIR: No, that was fantastic. That actually does take us to the standard instrument. You see that very much as something that has curtailed good planning? The standard instrument has been in place for quite some time.

MARTIN FALLDING: Yes, it was introduced in 2006, if my memory is correct. It has actually brought what is a very complex system of land use across New South Wales, where you get different issues on the North Coast and different issues in Western Sydney to western New South Wales. They all have the same zonings and the same names. In many respects, there are quite different issues. One example is the standard clause that relates to flooding. It's the same across all of New South Wales even though the situation, as we know, for flooding, is very nuanced and localised. There should be the capacity to bring good data into local environmental plans to make these decisions clearer and more accurate.

The CHAIR: Mr Gordon, if we don't change our planning system and the way we are responding to the present threat of coastal erosion and the dynamics of the coastal landscape, what do you anticipate the next 10 years looks like?

ANGUS GORDON: I think the next 10 years is very unpredictable, is the answer to that. I know I'm a coastal engineer, but I'm also a flood engineer. I would like to put it to you, without trying to be alarmist at all, that the conditions are such that this weekend we could have a deep cell form off Sydney or on Sydney. If that were to occur, we could see 60,000 people in the western suburbs homeless. Some of them might be able to be moved back into their homes, but some may never be able to. If you want an example, take a look at the little example of Lismore. What that tells you is that we've already built ourselves already, with this planning system, into a fairly desperate potential situation. It is important to look at outcomes and it is important to look at consequences. As I say, I'm not trying to be alarmist about it; I'm just saying these are actual realities.

The CHAIR: That's okay. I'm from Lismore. I remember exactly this time two years ago.

ANGUS GORDON: The funny thing about Lismore is that I was there in the early '70s—I was with Public Works—and, of course, there were a number of cyclones and Lismore had similar floods to what it has at present. At that point in time, the decision was taken to move Lismore or to redevelop it onto higher ground, as you would be aware. Unfortunately, the planning system let that down very badly because it was dealing with processes and not outcomes. What we saw more recently is terrible; it should never have happened. It happened because of a failure in the planning system. What I believe with these sorts of things, from an engineering point of view, is that you unpack them and you go back and you have a look at what's happened and why it's happened and why we've had these problems.

I am agreeing very much with Mr Fallding that the issue here is the lack of emphasis on risk management and consequences in the planning system as it stands. Funnily enough, we have a couple of Acts. We have a coastal Act and we have a bushfire Act but we don't have a flooding Act and we don't have a landslip Act. They're just matters for consideration. As somebody who has been the general manager of a council, I have taken a great deal of interest in matters for consideration. All too often I've heard, "Yes, I've considered that", and we'll move on. In fact, there has been no consideration and, certainly, no risk management consideration or consideration of outcomes. It seems to me that there's a great need for far more understanding of risk management and consequences. As happened in Queensland in 2011, it wouldn't be very difficult for New South Wales to actually find itself in fairly desperate financial situations, depending on the circumstances.

The CHAIR: We heard from the Government this morning that from the flood inquiry that took place and the bushfire inquiry that took place there were recommendations from both of those that we need to move to a risk-based planning system, but we haven't. We're not there. It sounds like there is some work that's happening. We've got the Reconstruction Authority that's developing strategies and strategic plans around climate and hazards. Is there a fear that we will just create some more excellent, high-level State instruments but that we will still be seeing the things that we're seeing on the ground and perhaps not looking at mitigating, directly, the impact of, say, 60,000 people or those kinds of impacts on the ground? What do you see that we would need to do to avoid just another inquiry that tells us what we need to do?

ANGUS GORDON: I think the most important thing is, in fact, to be able to specify the outcomes that are required. That isn't clear. What the emphasis tends to be is on process. What you see from these inquiries is process, process, process—not outcomes. What there should be is far more emphasis on outcomes and consequences.

The CHAIR: With the reference you made back to the period of time where we saw previous floods et cetera and the realisation that Lismore should move but we didn't do that, are you're suggesting that we need to actually look at where the hard edges of adaptation are and start mapping those outcomes immediately or making those outcomes the necessary factor?

ANGUS GORDON: One of the key things about risk management is that, when something does go wrong or looks like it's going to go wrong, you take it apart and you have a look at exactly why it got to that circumstance. That's really a fundamental thing in risk management. I just think that unless we put far more effort

into understanding those things and, as I say, specifying outcomes—if you look at the coastal Act, it's interesting because the coastal Act starts off with a page of objects. Objects are extremely good. They are the objects that one should be looking for and the State should be looking for achieving in the coastal zone. Guess what? The SEPP makes no reference to the objects. The general development of the coastal zone management plans, the ones that I've seen, make some cursory mention of the objects. We have these objects that were stated as being what the Government wanted to see as the outcomes, but it stops there. Once you get into the process, it gets lost.

The CHAIR: So there's a disconnect?

ANGUS GORDON: A total disconnect.

The CHAIR: And the failure is happening between these objects and then actually implementing them and requiring them to be implemented?

ANGUS GORDON: And getting the outcomes that the objects are aimed at achieving. The State is setting something to be done and then the whole lot gets buried in process.

The Hon. PETER PRIMROSE: I'm not an engineer. A plane is in the air, the plane crashes. Everyone looks at what the problem was and then says, "We want to improve the safety." To improve the safety, they then have a checklist that includes that they need to make sure the bolts are actually put back onto the door. There's agreement on the outcomes, but the secret to improving the outcomes is to make sure the process is followed through. I'm not disagreeing with you; I'm just trying to understand. Other than having laissez faire to say, "We want things to work out properly," how do you achieve that without having a process to ensure that this is all taken into account? And how do you do that without having criticisms that you're simply imposing more red tape?

ANGUS GORDON: I have no problem at all with having processes. I think that's essential. But what you don't want is for the processes to dominate the outcomes. At all times you need to be fitting the processes to achieving the outcomes. That's the key. As an engineer and somebody who has worked offshore for many, many years—in fact, I'd hate to think about where we'd stand in OH&S issues today with some of the work we did. We were often taking risks, but when we knew that we were taking a risk, afterwards we would sit down and work our way through what it was and what we needed to change to make sure that that was managed properly. That's not happening.

The CHAIR: In terms of how we actually pivot the planning system we have now to having it so it can properly address the risks that we have in front of us now—fires, floods and, as Mr Fallding has articulated, the loss of biodiversity—in order to do that, you think that we need to stipulate the outcomes we want to achieve. Would those outcomes be the thing contained in the written law?

ANGUS GORDON: My answer to that is, definitely. I think that's the key thing. The State can play a very important role of leadership in what the outcomes are. The State needs to play that role, because at the end of the day it is the State that becomes the ultimate insurer for things going wrong. It's the State that suffers financially when things go wrong, as was shown in Queensland. That Productivity Commission report in 2014 is a very interesting document because it demonstrates quite clearly that there need to be much clearer objects. There must be much clearer outcomes that are being sought. The process just needs to fit that, not the outcomes fit the process.

The CHAIR: We heard that that there's work happening about the proper valuation of green or natural infrastructure and that Treasury is doing that work. In your experience, what have been the primary inhibitors? I hear the standard instrument has provided an inhibitor to good outcomes on the ground for addressing the challenges in the landscape and in communities. What other inhibitors or constraints have you seen to being able to have people who are in positions that want to do things to make the planning system work to address impacts—climate change and hazards? What are some of the other inhibitors?

ANGUS GORDON: One of the keys to the original planning Act was the LEPs and DCP structure. In my experience, I was general manager of Pittwater Council at a time when it had developed a large number of DCPs with the community. The DCPs were very detailed and, in fact, they were extremely good at ensuring you got the outcomes that the community and the State wanted. Over time the DCPs have become meaningless, useless documents. Neither the courts, nor developers nor members of the community take much notice of them. Yet they were, if you looked at the original Act, the key to implementation.

The CHAIR: Are you suggesting that the EP&A Act in its original vision and iteration actually had the architecture for good and successful planning outcomes that could have been readily adapted to the challenges of today?

ANGUS GORDON: Yes, I believe that quite strongly. I was involved in developing the coastal Act at that time, so I had a number of dealings with John Whitehouse, who was putting together the EP&A Act. He's a

very intelligent person who I think put together quite an amazing structure. The ideas were there; it's just been changed over time. As I said, the crippling thing has been the changes to the DCPs. That's been really crippling from the point of view of implementing risk management. The other interesting thing is—as Mr Fallding was saying—when I saw the standard instrument for the first time and they were bringing it out, I said, "This is crazy. This is one size fits all." Yet the differences between the cultures in the community, the land in the community and what risks the community is exposed to—Broken Hill doesn't have much exposure to coastal erosion at this point in time.

The CHAIR: You're not telling us you expect that, are you?

ANGUS GORDON: No, I think I just threw that in. Sorry about that.

The CHAIR: No, that's fine.

ANGUS GORDON: But what I'm saying is that, really, the standard instrument takes away, as Mr Fallding said, from being able to really address the issues that are local. They are complex. Pittwater, for example—landslip. Around about half the properties are affected by landslip. But if you go to anywhere else, maybe in the eastern suburbs or the western suburbs, there may be only very few properties affected by landslip.

The CHAIR: I realise the time. Sorry, I got stuck in a lift and that's why we're running a little past time. But we might just keep going, if it's okay, for another couple of minutes. In relation to your flood expertise, we've heard that we rely on mapping and modelling. What's your understanding of the state and condition, if you have a view on that, of the State flooding mapping that we rely on at the moment in order to provide consultants on development projects and planning proposals? What's your view on the mapping and the modelling that they're relying on across the State at the moment?

ANGUS GORDON: As somebody who's been involved in mapping and somebody who's certainly been involved in modelling, let me just say it's as much an art as a science. It's taken for granted that it is far more accurate and far more precise than what it is in reality. The interesting thing here is—let me just use an example. We keep talking about things like the one in 100-year storm. As I put it in my submission, the fact is that was something made up to try to make it easier for the community to understand. It's not a one in 100-year; it's a 1 per cent probability each year. But it's only a 1 per cent probability each year at the moment, because as the climate changes it won't be 1 per cent anymore, it will be a 2 per cent or 3 per cent or more. This is the thing that needs to be understood: The very basis that we're putting our flooding together on isn't adaptive. It's very fixed to formulas that do not reflect the accuracy of both the information we have nor the processes and methodology we use.

The CHAIR: Mr Fallding, one of the issues that has been presented to the inquiry in submissions is a practice of development consent being granted for developments, and then those developments commencing, to a degree, but not visibly. Then, some years later, these developments arise and the local community is horrified. If you looked at the development assessment lens now, those developments would be unlikely to get approval today. Some people refer to them as zombie developments. What is your understanding and experience in local government about the capacity and the ability to do anything about that?

MARTIN FALLDING: In my experience, I have been involved in one case in the Hunter Valley where a mine was approved, and it basically physically commenced because they built a dam, and then the mine work actually started 20 years later. The environmental impact assessment that was done for that was quite different to the impact that it would have been when it actually happened. It's a real problem. I think that there is the capacity, in my understanding, that development consents are able to be revoked in the Act as it stands now. The general culture within councils is that that is impossible to do. Also, it's impossible, in the view of most people, once land is zoned for a particular purpose, that it can be, in the common language, back-zoned. That's also possible to do. I have been involved in one case in Lake Macquarie City Council where an industrial development in high-biodiversity land, with a lot of threatened species—40 hectares of industrial development—was refused in the courts, and we subsequently, as a council, then got the State Government's approval to rezone that as environment protection.

It shows that things can change. It's just that people don't believe that it's possible and that there's not really the evidence that makes that happen in practice. That probably, in the context of the changes we're seeing going forward, needs to be recognised—that land use should not be able to be fixed in time forever, that circumstances do change and that things need to be appropriate at the time that the development commences or is approved. That was the intent of having a limited time period on development consents—that you couldn't have a consent forever. I think it really needs to be looked at in terms of reviewing what "commencement" actually means. That's a definitional issue in the legislation because, in my experience, before the EP&A Act came into effect, it was a different term for "commencement". I think it was "substantial commencement", if my recollection

is correct, whereas now it's "physical commencement", which is a different thing. There would be mechanisms that could be introduced quite easily to develop criteria for when it's appropriate to be able to review the validity of a consent.

The Hon. PETER PRIMROSE: How does the planning system currently, if at all, allow for transferable development rights? For example, if, as a consequence of climate change, a prior planning approval is found to not be appropriate anymore, is there an ability to transfer those development rights to somewhere else?

MARTIN FALLDING: That's a really interesting question you ask, and I probably can't do it in the time available. My experience with transferable development rights is one specific case study, which is the Gosford interim development order. That enabled land rights to be transferred from one parcel in a different way. There has been a lot of legal argument that that is not possible to do under the Environmental Planning and Assessment Act because of the current way that's written. As a planning term and a concept, it's been quite well recognised, but it has been ruled out, essentially, in my understanding, because the department of planning and its predecessors were not comfortable with that. Also, it was a site-specific case. That's, again, where the standard instrument LEP has prevented those sorts of clauses being introduced into local environmental plans to enable that to happen where it's appropriate.

The CHAIR: Can I ask one last question. I'm noting the time. I'm very sorry. The idea that you have a local strategy, for example—I'll use housing because that's one that's happening at the moment. You could have a local housing strategy that identifies, as many local housing strategies do, areas that are appropriate for subdivision or development. These might be greenfield sites. And then it becomes clearer that the strategy isn't updated—it might be eight or 10 years old—and that there is an area of land within that that was identified as suitable for housing but is no longer. It might be because of biodiversity constraints or there may be a new listing. What's your understanding in terms of a council approach? If, then, a proponent of development owns a parcel of land and that has been in that strategy, how does that work? Is there an expectation that somebody who owns land within that area should be able to then go ahead and develop that land? Or is your understanding that, if there's a case that it shouldn't be developed—maybe we've got better flooding models or something has changed, but the strategy hasn't changed because of council's resources. Is that something that's common? Has it happened? How does that get grappled with?

MARTIN FALLDING: My experience is that that is not uncommon. I think both circumstances occur in some cases. It depends on the individual local government area, the individual region and also the views of the department of planning. In some cases, the view is taken that once it's identified in a strategy for housing, then it should proceed, irrespective of any constraints. On the other hand, some people, and some councils, take a different view that, if the values are such, based on the surveys and information, that that's not warranted, then that is questioned. And there are circumstances where that doesn't go ahead. There is not a blanket, one-size-fits-all answer to that question. It's a situation that is happening more frequently.

Part of the problem that I see with it is that a lot of these strategies, when they've identified a lot of areas, have not been based on research that has been appropriate. It is really a legacy decision. They often arbitrarily draw lines on the map when they should be identified as areas for investigation, rather than areas for development. That's a situation I'm familiar with in Lake Macquarie council, where there are a number of areas which were identified as investigation areas, but the expectation from the development industry and from others in the community was that this meant that they were future development areas.

The CHAIR: We'll have to wrap up there. Thank you so much. I apologise again for the delay in commencing. I'm very grateful for your time and your appearance. Is there anything final that you would like to add?

ANGUS GORDON: If I could, first of all, I'd just like to point out that, as Mr Fallding has just said, we had exactly the same experience with the Warriewood Wetlands, where it was expected to be able to be developed for industrial purposes. In fact, the Warriewood Square went ahead. In the end, the council decided it needed to be preserved as a wetland. We went through a fairly complex process but, in the end, it was rezoned to become a wetland. The final thing I'd like to say is I've had some friends from up at Wamberal contact me to tell me that you are going to be visiting them, I believe.

The CHAIR: We are.

ANGUS GORDON: I think that's a good example, what's happening at Wamberal, of a failure by the council to really take a good look at what the situation is. I think there is a lot of frustration there and I think that the outcomes that are being proposed are something which will fundamentally change the area. I can only say that I'm delighted to hear that you're going there, because I think it is a good example of the sorts of problems that

have arisen and particularly at Collaroy and Narrabeen, for example. It's Collaroy and Narrabeen on steroids, you might say.

The CHAIR: I note those aspects of your submission, which are very helpful for the Committee.

ANGUS GORDON: Thank you, and thank you for the opportunity.

The CHAIR: Thank you, both of you.

(The witnesses withdrew.)

Ms JULIE BINDON, Life Member, Urban Development Institute of Australia NSW, sworn and examined

Mr GAVIN MELVIN, Acting CEO, Urban Development Institute of Australia NSW, affirmed and examined

Ms SUE WEATHERLEY, NSW President, Planning Institute of Australia, sworn and examined

Mr JOHN BROCKHOFF, National Policy Director, Planning Institute of Australia, affirmed and examined

The CHAIR: We welcome our next witnesses. Thank you very much for joining. Would any of you like to make an opening statement?

GAVIN MELVIN: Yes, just briefly, if you don't mind, Chair.

The CHAIR: Thank you, Mr Melvin.

GAVIN MELVIN: Thank you for the opportunity to appear. Australia is a land of extremes, of droughts and floods, as we know. I think, though, the evidence is clear that climate change and the impact of climate change on our environment is leading to an increase in the severity and frequency of extreme weather events. This is clearly placing existing communities at risk. As such, it is critical that the Government, industry and our community work together to tackle this immense challenge. As you will appreciate, development requires an orderly use of land in order to construct the new homes, commercial centres and other places needed to sustain our growing population.

In the State of New South Wales, the orderly use of land is regulated through our planning system, with a focus on strategic planning and statutory planning, or development assessment. We do have one of the most comprehensive, often complex, planning systems in the world, which seeks to facilitate ecologically sustainable development and, in doing so, balance the economic, environmental and social considerations. The planning system is constantly evolving to reflect contemporary planning theories and the most up-to-date methodologies and data. In the latter half of the twentieth century we saw the system move to a risk-based framework around both flooding and bushfires. In 1986, the Government released the first flood-plain development manual to deal with flood liable land, and the Rural Fires Act was introduced in 1997 to create the authority to assess development applications on bushfire-prone land. This has positioned us as a world leader in planning for natural hazards and resilience.

Recent natural disasters that we've seen have impacted developments which were planned and built before the introduction of these risk-based frameworks. It's critical that we do not conflate the impact of severe weather events on these legacy developments with the way new development proposals are assessed and approved in New South Wales. UDIA's contention is that the planning system does appropriately consider the impacts of climate change on planned development. We do not believe changes to the planning powers or increased powers to revoke development approvals are warranted at this time. The inquiry is focused on the impact of climate change. The system must also facilitate orderly land use in order to address our housing crisis.

As we know, we are in the middle of a housing crisis. The New South Wales Government has committed to deliver 75,000 new homes on average for the next five years through the National Housing Accord. That is more homes than we have ever delivered before in New South Wales, and that is coming at a time when our industry faces increased uncertainty from high interest rates, escalating material costs, labour shortages and builder insolvencies. In this environment, the assessment of risk from natural hazards must occur, in our view, as early as possible in the development process, before the land is identified for housing and before investment decisions are made. In New South Wales we do map bushfire-prone and flood-affected land, and it's being done proactively. This approach allows strategic plans to have regard to risk and incorporate that into decisions about where growth is planned. We contend that's an appropriate process.

In respect of flooding, as you know and you may have heard this morning, the NSW Reconstruction Authority has been tasked with developing local disaster mitigation plans and supporting local government to reassess flood planning levels—again, an entirely sensible process. That work is still in its infancy. The State Disaster Mitigation Plan was released in February. We strongly recommend that the work with local government, including the process of revising flood planning levels in the State's highest-risk catchments is expedited across the State and that all necessary resources are given to the Reconstruction Authority to do that work as quickly as possible. We are grateful for the opportunity to present today. These are significant issues that need careful evaluation. It's necessary to ensure planning legislation balances all aspects of the public interest as we address the challenges of addressing the housing crisis. Thank you.

The CHAIR: Thank you. Did anybody else want to—yes, please go ahead.

SUE WEATHERLEY: I'll make the opening statement for the Planning Institute of Australia [PIA]. I just want to introduce who I am. My background is I've had a 40-year career in planning across Australia, with the past 30 years as a senior executive in local government. In Sydney, that's been in Ryde, Parramatta and Georges River. So I bring some experience beyond simply the propositions from PIA. PIA is the national body representing planning and the planning profession. We support this inquiry and commend the Parliament for setting it up.

As stewards of the planning profession, PIA are committed to better planning for a changing climate, including adapting for exposure to natural hazards including flooding, coastal inundation, bushfire and urban heat. PIA advocates for a change in the existing paradigm where, currently, natural hazards are viewed as contingencies rather than as inevitable. Change of that philosophy is a key part of our submission. There are increasing risks to settlement in a changing climate. We have consistently advocated for building back more resilient and for planning to minimise or avoid risks to new development altogether.

PIA has three planning principles which encompass holistic planning for natural hazards. We also outline focus areas of inadequacies in the existing planning framework. We believe the current framework is inadequate and it needs review. PIA also supports improvements to the NSW Climate Change Adaptation Strategy to make it more explicit on the climate scenarios to be addressed and the expectations for adaptation action plans, particularly the need for closer integration with regional strategic plans. Part of our submission is regional strategic plans are an option under the Environmental Planning and Assessment Act and, if prepared, there's no specific reference to the climate risks and how they're to be managed and what mapping's required to inform that, which needs to be the first part of preparing, before we get to preparing any LEPs.

The three planning principles for natural hazards that should be embedded in the planning system—the first is to avoid future exposure. This means using informed planning parameters to avoid unacceptable exposure for future developments to natural hazards. To manage the known risks to existing settlement: This is about improving the capability of existing communities to adapt to natural hazards—for example, improving public information of hazard risk and building back with more resilient infrastructure. The third principle is to make arrangements for planned retreat, where legacy risks are unacceptable and cannot be managed. In situations where risks to existing settlement and human life cannot be mitigated, there should be governance and funding arrangements for planned retreat.

In talking about the adequacy of the existing framework, we have identified the following areas requiring improvement for the New South Wales planning system to respond effectively to natural hazards. This is in addition to the detailed recommendations made in the previous PIA submissions to New South Wales inquiries, which include the flood inquiry and the bushfire inquiry. We made detailed submissions to those inquiries as well. The first of these is the accountability for hazard modelling and mapping. At the moment, it's a bit of an ad hoc approach to that. It rests primarily with local government, and there is difficulty with maintaining those hazard maps with up-to-date climate data as we get more information and we need to make adjustments. Quite frankly, many local governments won't have the resources to do it fully. Even if they do do it fully, they're only responsible for the artificial constructs of a local government boundary and can't have regard to catchment or landscape scale, which can mean perverse outcomes, with different results on different sides of a street.

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 a clear accountability for hazard modelling at a catchment scale and maintained with up-to-date climate projections. This will help ensure a coordinated statewide approach to maintaining hazard risks at both strategic and development levels. Accountability should be embedded in an objective of the Environmental Planning and Assessment Act. PIA has specifically called for improved bushfire planning guidance at a landscape scale, not just a local government scale. The adoption of urban heat planning framework is also critical, especially as this interacts with BASIX and other design expectations.

The next change we would recommend is 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 those climate scenarios.

Biodiversity loss—PIA has made consistent submissions regarding the need for biodiversity assessment and spatial planning to achieve improved outcomes. It is imperative that biodiversity offsetting is secondary to avoiding damage and, where used, does result in adequate, relevant and like-for-like offset results that meet desired biodiversity outcomes. PIA supports a more deeply embedded climate change adaptation in strategic

planning decision-making, rather than relying on the ad hoc decision-making at the DA stage. To do this, climate adaptation plans should set out scenarios and decision-making frameworks relevant to each hazard and specific to an area and have this embedded in spatial strategic plans. As I said, we've also made submissions on other inquiries, and we would draw the Committee to those submissions as well.

The CHAIR: Thank you very much. Thank you for your excellent, comprehensive submission, and I note that you have made some very good submissions to all those inquiries. So thank you for being here at this one. I just had something pop up as you were speaking about the design SEPP that was in place and then was repealed, the place and design SEPP, and am just wondering if you had any views on that. We heard earlier some evidence around the heating aspect of places, and the evidence there was in their view it was a very good SEPP and it did try to grapple with some of the heating aspects, particularly around Western Sydney, and that sort of thing. Just wondering if that's something you're cognisant of.

SUE WEATHERLEY: The Planning Institute made a submission generally in support of that SEPP. We did recommend some changes for improvement. But the principles of that SEPP, which was to improve the overall design, not building by building but consider how buildings sit in a place and make sure the whole place is addressed, was an excellent foundation. I think its greatest difficulty was the complexity of the New South Wales planning system meant that it was amendments to multiple different documents and whatever to come into effect, and that just made it a difficult document to implement. But I think the principles and the concepts included in the SEPP would've made a significant improvement to local environments in New South Wales.

The CHAIR: Then, I suppose, a shame that it came and went without having a real chance. Is that the—

SUE WEATHERLEY: I don't think it actually got gazetted. It didn't actually even come into effect, I think. So we'll have no idea whether or not it would've had any impact or whether or not any impact would've been positive or negative. We can just say that certainly the principles behind that were well supported by PIA and many others, and it's probably unfortunate that we haven't got to see how it might've had an impact.

JOHN BROCKHOFF: Chair, can I add, following on from Sue's comments, PIA did make a positive submission. We wanted to see the principles incorporated in local and regional strategic plans. We were particularly interested in urban design for urban heat, vegetation cover and elevating vegetation cover and urban heat principles up to the same level as the way we deal with the more common natural hazards surrounding flooding and fire. And also the other thing was it was another step down the road of recognising a response to a changing climate and having a statutory instrument that embeds a stronger recognition to a changing climate.

The CHAIR: We heard evidence around the health and climate co-benefits that can be achieved through that kind of good planning. Is that something that you've—

SUE WEATHERLEY: From a PIA point of view, we support the design of healthy, safe and sustainable and liveable communities, and often the same principles that apply to achieving one will also achieve something else. If you build walkable communities with really good tree cover, which are pleasant to use, you achieve a lot more outcomes than simply a greener environment. You achieve people being able to walk further and walk more, and that's a health benefit—and reducing people having to rely on motor vehicles and those sorts of things. Almost always, they don't just sit by themselves; they're integrated and have multiple benefits.

The CHAIR: If all of this is so clear and this is what we know we need in terms of bringing these things together, in your view and your experience—and this is to all of you—what have been the primary constraints and inhibitors of this? We heard—and I think you were in the room at the time—the standard instrument has failed us. There's various different views. I'd be very interested, with your expertise, to hear what has failed, what is failing us. Yes, we know the climate is changing and, therefore, the hazards are more acute. But from what I hear, we're also talking about things that are just good planning for all outcomes as well as addressing hazards. I'd be very interested to understand your experience on the constraints and the inhibitors.

SUE WEATHERLEY: New South Wales has—even one of the previous speakers said it—a very complex planning system. It's unnecessarily complex in some respects. The standard planning instrument was an attempt to streamline it, but I've lost track of how many steps we have. I can't work out what the planning rules are for a site, and I've got 40 years experience. I couldn't work out the other day whether or not a market required a DA, because it doesn't say it anywhere. I couldn't work it out. We have a really complex planning system. Sometimes we try to solve a problem by adding complexity to the planning system. With some of those outcomes, we need to start from some basic principles. PIA has a view that planning should always be strategic led. Unless we have the right regional plans, district plans and local plans to drive the outcomes—the previous speakers spoke a lot about the outcomes.

What are the outcomes we're trying to achieve in these different locations? We're then able to write planning instruments to achieve those outcomes. Those instruments, in my view, would be a whole lot clearer and

simpler with a better understanding of what is the strategic intent. What are we actually trying to achieve? What are the outcomes we're trying to achieve? That can't sit in an LEP. It can't sit in a DCP. It can't really even sit in a SEPP. It has to sit in those strategic plans. I think the current metropolitan strategy for Sydney was developed in 2016, so it's seven years old. It was a good plan but not a perfect plan. It needs updating. It needs to include proper consideration of the matters you're now talking about. How does our future in Sydney, for example—and, unfortunately, I'm not a regional person; I've done most of my work in Sydney—get expressed in that plan? What are the important things? How do you know what are the things you need to trade off? Where are the real risks?

The second issue that has really held us back in some of these conversations has been the lack of investment at various levels—local government and State Government—for updating some of the mapping and making sure that's easily available and that it's all mapped on the same principles so that we don't get perverse outcomes on boundaries of local government areas. There's a lot of work still to be done in that mapping, and investment in that mapping. I spent a lot of my career as a director of planning, trying to sort out whether or not a development could be approved, whether or not the invert level of a drain would work if 50 per cent of the other invert levels were all blocked, and building stormwater drains for a one-in-20-year storm event. Is that a one-in-five-year, a one-in-20-year or a one-in-50-year event? It's more likely to be a one-in-five-year event, so all of our drains are the wrong size. There's a lot of work to be done in addressing those issues. We've just got to make it a priority.

JOHN BROCKHOFF: Chair, could I add to that? Building on what Angus Gordon said a little while ago, we have seen a drift from the early days of the EP&A Act. We have seen a gradual blending of plan-making and assessment processes, and we have seen a drift to more ad hoc and potentially speculative rezoning. The net effect of that is that the opportunity for evidence-based strategic planning that takes greater attention of whatever resource management, climate issues and resilience issues—the ability to do sound, regularly updated, well-resourced, valid and relevant strategic plans has been somewhat eroded by planners chasing their tails, doing and responding to ad hoc planning proposals. It's diluted our effort.

JULIE BINDON: I think that UDIA thinks—and I certainly think—that the planning framework under the EP&A Act is sufficiently robust to deal with the problems we have, but we need to be very clear. It's very complex, and there's a lot of confusion about the planning system. The first part of the planning system is the strategic planning, and I couldn't agree more with what my other colleagues from PIA are saying about that. I'm also a fellow of PIA, by the way. Forward planning, strategic planning and getting the plan-making and the content of the plans right is very important. It has been neglected, in my view, for a long time. Although I have not worked in local government, I suspect it's being neglected because there are just not enough resources going into it. We know there are not enough planners. We know that there is not enough money and that local councils don't have enough money.

For the sorts of strategic planning challenges that climate change is throwing at us, the whole administrative boundaries of councils don't work. As my PIA friends said, it crosses catchments and it crosses landscapes. It is a regional problem, hence the regional strategic plans, which, quite frankly, for somebody who's working more at the coalface, those are other nefarious and esoteric documents that never seem to flow down as they should from regional to district to local and into those statutory instruments, the LEPs. I think the biggest problem is the failure of strategic planning. The other half of the planning system is the DA assessment. I believe that the DA assessment process is pretty robust. Recently, I served for three years on the Land and Environment Court as a commissioner. I see that there is every opportunity at the DA stage to interrogate and look at a development proposal in terms of its ability to address all sorts of issues in the public interest.

The objects of the Act need to be taken into account. Each LEP has its own objects, and each zone has its own objectives. Those are all things that need to be taken into consideration. It's often too little too late when you get to the DA, so it leads us back to the very crucial role of strategic planning, getting that right and putting some serious resources into that. I don't think the councils have the resources, from my experience of seeing them. Even in the court, getting them to respond to court orders in time is a real problem because the staff are too stretched. It's a real problem. The resources have been dragged into development assessment. By far, the most resources in councils, I think—Sue would know better than me—are being spent on development assessments, certainly in the higher development-intensive areas of the metropolitan area where we're trying to—

The Hon. MARK BUTTIGIEG: This is interesting. This is one of the nubs of the problem. This is part of the concern. Obviously, the Government is very committed to increasing housing supply, which implies speeding up approval processes and greater density but not at the cost of environmental degradation. Given that tension you just outlined between a State planning instrument and LEPs, for example, and the under-resourcing of council, what is the way through to navigate that in terms of speeding up the approval process and getting the density we need but having the proper control so that the environment doesn't suffer as a result? It's a simplistic question, but—

JULIE BINDON: I understand what you're saying. The framework allows for that, and the State Government uses the State environmental planning policies, or SEPPs, to do that. If the councils are unable—lack resources or it's something that traverses any one local government boundary—the State Government, through the department of planning, has the ability to implement a SEPP. It's another planning instrument, like an LEP, but at the State level. They can do that quickly. With the housing crisis, that's what's happening. We're expecting a new SEPP to come out. That is something that can be done quickly. In an emergency, where there is a crisis, there are ways to use the SEPP system. I don't have a problem with that. I think that's appropriate. But it has to be very carefully considered, nevertheless, about what the ramifications of it might be and it has to involve discussions with the local communities.

The Hon. MARK BUTTIGIEG: So teasing out that, if there is a tension, and I'm not quite sure whether you're suggesting there is, but that perceived tension between the State Government coming in over the top with its regional SEPPs, for want of a better word, and local councils not having perhaps the say that they might have because of the regional nature of the plans, is there a way through that in terms of allaying people's fears about what that will do to the environment? Or are we jumping at shadows here because those safeguards are already in place?

JULIE BINDON: There's a hazard SEPP, for example, and the hazard SEPP could be expanded to encompass other hazards that it currently doesn't encompass, and that is probably the best way to do it. It needs to, as with any form of hazards, be based on really good data, and research and modelling and mapping. I couldn't agree more with the importance of doing the modelling and the mapping. The technology is so much better now than it was a few years ago, and the State Government—the department of planning—has been good in being the keeper of a whole lot of very important mapping tools and mapping data for the planning system. We've got the technology; we should be doing it more. Put it in the planning portal. It's about having that data spatially mapped, the risks identified and mapped, and it being accessible to people so they can go in with their eyes wide open before they buy a site, before they submit a development application, before they start investing a lot of money that may be abortive.

SUE WEATHERLEY: Can I just add a comment about the cost of mapping? Mapping's not drawing the detail on a map; it's gathering the data. The standard process for preparing a flood plain risk management plan for a single catchment is five years and \$500,000. That's a single catchment in a local government area. Ryde is 14 catchments and Parramatta—off the top of my head I'm going to say it's 10. It might be more than that. The cost of doing it and the time to do it because of the processes involved is significant. It is a complex computer model that then needs to be maintained by an authority. We used to have catchment authorities and that was their job. When they were disbanded, they handed the model to councils and the knowledge and the understanding of how that model was created was lost, to the extent it could not be updated.

The Parramatta River catchment authority was 11 councils. That knowledge about how that model was put together was lost, and that's just the Parramatta River catchment. I forget all the creeks, I'm sorry; it has been a little while since I've been at Parramatta. But all the other creeks that lead into that all were separate catchments and had to be updated. That's the challenge confronting local government and that's just the flood risk. Add that heat risk and if they're a coastal area you're going to add the coastal inundation. This is a big job. It is a resource issue; it's a time issue. It's also the integration issue that can't happen just at a local government level, as in the old Parramatta River catchment authority. They're the sort of challenges that have been left with local government and I think we need to think about how we do that better going forward.

Just picking up a point from one of the other members, there's not so much an issue of a—there are statutory plans and there are strategic plans. The strategic plans are also created under the Act but have a different legal status, and they're the plans that should be exploring all these issues and giving clear direction for any future SEPPs, for any future LEPs, so we know why decisions are being made, because that is not in those documents. It's not in the statutory documents; it's only in the strategic planning documents. Doing those things right makes the next step—the LEPs, the SEPPs—much easier and therefore makes the DA decisions far less controversial and perhaps we wouldn't have Land and Environment Court commissioners.

GAVIN MELVIN: To your point, Mr Buttigieg, about avoiding that tension, I think it's at the strategic planning level which, as we've said, is not happening, and from the development community's perspective that's where making these important decisions, having the data and being really clear up front—some of these assessments are happening too late, which is uncertainty both for future development and for the community. That's where you start to have some of this tension emerging. I think, as we've said, the more that can be done to get the strategic planning done, refreshed and resourced—and there is definitely a resourcing issue, as we said. The Reconstruction Authority is doing flood work, but it's doing the Hawkesbury-Nepean and the Northern Rivers. We would say, "That's great but you should be doing all of it at once." That data is really important and strategic planning can then be updated to reflect that.

JOHN BROCKHOFF: I was principal policy adviser on Sydney's Metropolitan Strategy through the generations from about 2005 to about 2013, and in that time my role was trying to make the trade-offs at that regional scale for Sydney on what sort of planning controls could be made at that strategic level and then working out what were the mechanisms by which the place outcomes—the ways in which particular precincts or suburbs or growth areas might grow and change and respond to a changing climate or respond to demands for more housing growth. What were the trade-offs that had to be made at that level so that when you got to the DA stage you weren't having to deal with, "Is this the right area because of bushland? Is this the right area because of floods?" Those trade-offs have already been made at the strategic level.

But the more mixed up strategic planning gets, the more decision-makers have to make high-order, high-level, difficult decisions at a development application or, if you were dealing with rezoning a planning proposal, dealing with a planning proposal, and it gets very muddy then. It throws quite significant costs at a decision level that wasn't designed to resolve high-level trade-offs. So the system becomes more efficient and typically you get expertise dragged off strategic planning to resolve trade-offs at a DA or small block-level, precinct planning level, and then the net effect is the whole system slows down because those resources that would have been doing a city-wide strategic plan or resolving some issues around resilience of strategic plans in a changing climate are dragged off on a DA or a minor planning proposal matter. So it sort of ends up chasing its own tail.

The Hon. SCOTT FARLOW: There seems to be some unity today in terms of actually attacking things at the beginning and investing that time in being able to address issues at the beginning and front load some of these challenges. When we're talking about land use, for instance, there may be very different views that the UDIA would have to what some of the bodies we've heard from earlier today would have in terms of land use, but you're better to have that argument at the beginning, have certainty on both ends rather than having that at the end when it comes to a development application.

I'm just interested in terms of some of the advice we've heard today and, Ms Weatherley, this comes to a lot of the challenges you've been outlining. There has been definitely a preference for things to be determined more at the local level when it comes to some of these challenges but there is the challenge within local government that their resources aren't there to do it, and I think your demonstration in terms of the mapping as well is very interesting in terms of how much that takes from a local government perspective in being able to complete those mappings. How do we get the State Government, without just handing over money so to speak, to better coordinate what would be climate adaptation proposals and policies with local government but empower local government along the way that has that local nous but be able to lean on the State so to speak as well?

SUE WEATHERLEY: To me, that is not a legislative requirement. That's a requirement of will and good intent. There's nothing to stop the Government to say now, "We want to begin the mapping for a particular area," and, again, mapping makes it sound like a simple process. Some of this is a bit simpler than others but certainly not the flood stuff; it's a very complex issue. "We want to start that process. We want to work with the nominated councils for that catchment area, establish the relevant governance structure involving those councils, with the councils and the government putting money in it so everyone has skin in the game."

But that's a matter of will. Because the alternative is to go back to the catchment authorities. I have to say, I just don't know enough about why the catchment authorities were disbanded. It may have been that someone made the decision that they've done the mapping, they've created the model and they are not required to exist anymore. But we need to think about whether that is a model or whether we can just do it through an agreed governance process where it's an agreement of people wanting to do it and do it that way.

Most councils, I would think, would be very keen to have the help and the assistance, because it's not just planners that are in this process. It's not just the planners and the strategic planning team. You need engineers who know how to read a flood model and prepare that. That's a level of expertise that's difficult for a council to buy in. They normally engage consultants and have someone in there, who would be one of their flood engineers, perhaps, trying to manage that process. But it's a really highly skilled area of expertise, and I would suggest it's the same for coastal inundation and some of the other things. For urban heat, I think there's a bit more knowledge out there and it's not as expensive a process, but if we took flooding, that requires, in most cases, beyond the expertise and capacity of most councils. They would probably be happy to help. I think Local Government NSW are also giving evidence. That might be a question to put to them as well.

The Hon. SCOTT FARLOW: One further question: We've had a lot today in terms of prioritisation. Firstly, I think there has been some agreement that potentially the EP&A Act tries to do too much, in a sense, and there might be other ways that this could be approached. But in terms of the prioritisation in the Act, there have been a lot of people who've been claiming that we should change prioritisation within the Act and we should

prioritise climate considerations as pivotal under the EP&A Act. I'm interested in the thoughts of both of your bodies with respect to that.

SUE WEATHERLEY: We have an established view that the objectives of the Act certainly need to be changed. At the moment there's no specific reference to climate change and adaptation, and the impact of that and that having to be considered. We would say the objectives of the Act do need to be changed to take that into account. I would also submit that the requirements of a regional plan and a district plan, as specified in the Act, are also inadequate. If you want those plans to drive or consider these matters so that we do get the priorities right and those things are considered up-front in the strategic plan, some additional objectives and requirements of those plans should also be considered to address that.

JOHN BROCKHOFF: Could I add, that would enable strategic plans to have greater authority and permission to establish appropriate climate scenarios and ensure parameters that will inform strategic plans. The future is uncertain with the changing climate, but you can establish scenarios and "what if" situations. And you can give those scenarios some status through the planning system—that you will, with urban heat or bushfires, be planning for this situation and you will look at planning for a no regrets pathway if that situation arises. It's great to allow State or local strategic planners to have the authority through the Act to plan with that type of more resilient thinking.

The Hon. SCOTT FARLOW: On behalf of the UDIA?

JULIE BINDON: On this point, this is where you need to be very clear in the distinction between plan making or strategic planning and development assessment. Because if you start to build into development assessment requirements, as an object of the Act, that you must assess the impact of climate change, that is so broad that, at the DA stage, I don't think the industry or the councils would have a way of grappling with that. But if climate change is an object and a requirement for strategic planning, and resilience and impacts arising from climate change—absolutely. But don't confuse those two sets of work that the planning Act does.

The CHAIR: Finally—we are out of time and I apologise—there was criticism that currently the strategic plans are fuzzy, they're not specific and they're often a bit complicated. And we've heard from you today they're not up to date. Would you all agree with that proposition? Because what I'm hearing is if we're going to do strategic planning, we should do it really well, we should do it early and we should do it fulsomely. Am I hearing that there should be in that—I know this is a terrible word in planning—some prescription around how that strategic plan plays out through the layers, if there are layers of instruments, into the operations on ground?

JOHN BROCKHOFF: I can certainly comment. Firstly, there does need to be a hierarchy of strategic plans, making the trade-offs at the lowest possible level that they can be made and having those place outcomes understood in strategies and then having the planning system mechanisms working to achieve those place outcomes. Yes, you're right. That's fundamental.

SUE WEATHERLEY: Yes, and the only clarification I would add to that—because I certainly agree—is we've got to be careful we don't confuse a SEPP as being a strategic document. It is a statutory document. The strategic planning we're talking about are the regional plans, the district plans and the local plans, which are defined currently in the Act but are optional, because you "may" prepare one. They need to be a bit tighter and more directive, because the way in which the system is supposed to work is that the local plan reflects both the aspirations from a local level as well as the intent of the regional and the district plans, which sit with the State Government. So, yes, that needs to be right. They need to be clearer and more precise. They need to take this on board and be very clear about the areas that are suitable for development or not suitable for development because of climate change and our adaptation strategies that we've developed.

The CHAIR: I had one last question that fed in. What is the role of community and where community feeds into the strategic planning process? Because I know that we heard earlier criticisms that community gets involved very late. Is there a role for community in strategic planning?

SUE WEATHERLEY: I think everyone understands that, and that's a broad community, too. It's everyone. You have a say at the local level, you have a say at the regional level and you have a say at the district level. Actually, it's probably the place we really want people to have their say so that you reflect those in there, rather than having to rely on the fact that they don't take any notice until that DA is lodged next to them and then suddenly they say, "That's not what I thought I was getting in my street" or "I can't do this. Why can't I do this? I thought I was allowed to do this." We really want people to be involved in that strategic planning from the top down.

JOHN BROCKHOFF: Risk appetite is another one—having the community's view on what their appetite is for different types of risks. And that differs. A country town might be quite happy to have their main street go under water, whereas somewhere else doesn't.

JULIE BINDON: I think it's absolutely the place where communities should be as involved as you can possibly make it. There's often a reluctance to get involved, but that strategic planning is an iterative process. You hear from the community, and the community also gets to hear what the planning agencies are thinking, what the data is and if it can be presented—presentation is key—really clearly in sensible maps, for example, that everyone can understand, you can have this dialogue. It's a dialogue and it's a place to work out the risk appetite. It's a place to work out the trade-offs and get everybody better informed both ways. It's important.

The CHAIR: I'm afraid we've come to the end of this session. Thank you so much for your time, your evidence and your submissions. It has been incredibly helpful. We will now take a break and we will reconvene in five minutes.

(The witnesses withdrew.)

(Short adjournment)

Ms RACHEL WALMSLEY, Head of Policy and Law Reform, Environmental Defenders Office, affirmed and examined

Mr JASPER BROWN, Solicitor, Environmental Defenders Office, affirmed and examined

The CHAIR: We now welcome our next witnesses. Would one of you like to give an opening statement?

JASPER BROWN: The Environmental Defenders Office welcomes the opportunity to make a submission to this inquiry into the planning system and the impacts of climate change on the environment and communities. In light of the unequivocal scientific evidence of the impacts of anthropogenic climate change, the international community agreed in late 2015 to keep the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the increase to 1.5 degrees Celsius. This is reflected in the Commonwealth Climate Change Act 2022 and the New South Wales Climate Change (Net Zero Future) Bill 2023. Notwithstanding those legislated goals, we are yet to see enforceable climate targets embedded in relevant decision-making processes. While the EDO supported the introduction of the net zero future bill, our criticism at the time was that it needed teeth, that is, for climate targets and considerations to be operationalised and embedded in relevant decisions across the New South Wales Government. This remains true.

Our 2019 "climate-ready planning laws for New South Wales" report provided 20 recommendations for climate-ready planning laws in New South Wales. In addition to strengthening targets and the role of the Net Zero Commission under the new climate legislation, a critical and urgent reform needed is the integration of climate change considerations into the New South Wales planning system. This would involve amending relevant legislation, such as the Environmental Planning and Assessment Act 1979, to include a new objective setting out the explicit roles of the planning system in reducing emissions and protecting New South Wales against climate change impacts, and facilitating climate adaptation and resilience. These objectives should be consistent with, and give effect to, the targets set out in the Climate Change Act and the Climate Change (Net Zero Future) Act.

To accompany the amendments to planning legislation, we also recommend the development and implementation of an overarching and comprehensive climate change SEPP. A climate change SEPP would integrate climate change mitigation or adaptation considerations into decision-making under the EP&A Act and ensure compliance with the revised objects of the relevant planning legislation and the net zero future Act. In addition, other specific recommendations include clarifying mandatory climate considerations in strategic plan-making; providing clear impact assessment pathways, including requiring climate impact statements for major projects; establishing powers to refuse projects with unacceptable climate impacts; introducing specific reforms for green infrastructure to reduce climate impacts and facilitate adaptation in local communities; improving BASIX standards; revising development approval provisions found in the New South Wales planning system to include standard conditions that trigger a review of an approval after a major event; and the introduction of better powers to vary, suspend or revoke approvals in certain circumstances.

We urge the Committee to support continued development of a whole-of-government legal and governance framework in New South Wales for responding to climate change and the incorporation of climate change considerations into New South Wales planning and development decisions as a crucial element of the reform needed. Clear requirements for decision-makers will provide certainty to investors, industry, proponents and the community, who are already living with the impacts of climate change.

The CHAIR: Thank you very much. We've heard quite a bit about strategic plans and SEPPs. Your specific recommendation that we have a climate SEPP—what's your main justification for thinking that a SEPP would be a good mechanism to get decisions that help us deal with the risks of climate?

RACHEL WALMSLEY: We think that a climate SEPP is the missing SEPP so far. As you would all be aware, we have so many historic SEPPs and specific SEPPs. There have been SEPP reform processes many times. We have a situation where, to some extent, climate change considerations might be dealt with in a resources SEPP or in a building SEPP. But what we see as a missing piece is a climate SEPP that will bring in that whole-of-government piece that is missing. As Jasper said, we need decisions across government to link to targets. It's not just a problem for one portfolio or one instrument; we need to have mechanisms at every level. We see a missing piece, in a suite of reforms, as being that SEPP. We'd be really happy to take it on notice and provide this Committee with specific elements of what a climate SEPP could cover. But, as a big picture, we see that as having a really important role in promoting a whole-of-government approach to embedding climate change into all relevant decisions.

The CHAIR: It seems to make sense. At the moment, we've got a new Act and we've got a planning Act, but there is nothing that is providing the requirement, or—I said it in the last session, and it's a dangerous word—the prescription, to go and then implement the things in the decisions that would assist communities, assist

developers and assist everybody with understanding how it is that we deal with the impacts, the hazards or the disaster management of climate. We heard this morning that the Reconstruction Authority is the big body that is doing the adaptation planning and the disaster risk planning. Is a SEPP a way of integrating those documents as well? Is that something that you could see a SEPP doing?

RACHEL WALMSLEY: Potentially, yes. We've been invited to a briefing on the reconstruction thing, which we haven't had the chance to go to yet. What we're looking for is that joined up thinking that links what these bodies are doing. Another element of that is that the Net Zero Commission has a potential role to advise on adaptation. As I understand it, the Net Zero Commission is being put together now. It is being established. There's going to be further detail on their role. It's how to connect their role, the reconstruction agency's role and the planning department's role. As Justice Preston said in Rocky Hill, climate change requires action at all levels. We need a State planning policy, a SEPP. We need agencies involved to have that joined up thinking. We need local environmental plans so that local councils at the coalface know what they're doing. It's not simply a matter for one agency. We can't just say that reconstruction is in charge of everything related to climate or that the environment department over here is in charge of this tiny bit. We really are looking for that whole-of-government, coordinated approach.

We welcomed the net zero future bill as a first step in setting targets. From those targets, hopefully, more can flow. But a really crucial part of that is the planning system. Because, as you'd all be aware, despite the fact that the EP&A Act has been amended so many times over the years, we've had so many rafts of planning reforms, it has never actually tackled the issue of climate change head on. We still have pages and pages of instruments that do not directly address climate change except for in reference to coastal hazards, for example. What we really need to do is, finally, in 2024 actually embed climate change in that system so we get that holistic whole- of- government approach.

The CHAIR: And so with that, which I think your submission also refers to, there's a SEPP component to that. We would need clear-stated objects in any planning legislation and then you would need to set, I suppose, thinking that through, for then—and we just heard I think it was the Planning Institute, but you'd need to carry that objective or requirement into the strategic planning framework as well as the local planning framework. Is that your proposition and its direct reference to climate change?

RACHEL WALMSLEY: Absolutely. I think a previous witness was asked about objects, like objects on their own, is that sufficient, and we'd say you need objects in the Act to explicitly mention climate change, but then those objects need to be operationalised throughout the Act. In the report that we've attached, which I'm sure you've got but I've got other copies here if you want a hard copy, we kind of go through each stage of the planning system, starting with the objects, climate change there; then strategic planning, we need mandatory considerations for strategic planning on climate. We get to the environmental impact assessment process; we need mandatory requirements there for climate impact assessment. You get to development approval decisions; we need duties to actually identify unacceptable impacts. We get to compliance and enforcement; we need to make sure conditions are actually being complied with. At each element of the planning system we need to embed climate change so it is a holistic approach. It's certainly not enough just to mention it in objects, but we need to have it embedded in each of the stages and, as you say, at the State level and the local level, and the regional level too if we actually get some regional planning off the ground.

The CHAIR: Is your understanding that one of the reasons we don't necessarily have strategic plans and regional plans right now that are up-to-date, reliable, climate-ready strategic plans is that they're not mandatory?

RACHEL WALMSLEY: It certainly helps to have mandatory requirements for planning, but at the same time there has to be that realistic recognition that it takes time to do good plans and do them well and consult with local communities and get the evidence and the data to underpin good planning. It's important to have a requirement for plans and a time frame for plans, but that's got to be backed up by resourcing to make it happen because you can have a requirement for a plan that may not get made. We really need that kind of resourcing and investment in doing regional planning properly.

I don't think we've quite got that focus, and part of that is having a mandatory requirement in all planning to consider climate change and make sure that the plans actually factor in things like climate refugia, connectivity, flood zones, hazard zones, and actually make sure that that planning takes into account the local issues involved, where the flood plains are, where we're likely to have climate impacts in the future. And, again, a lot of that, we need really good data, information, modelling, so that is all resource intensive but we see that as a really good process to invest in because that would give certainty for communities. If you identify no-go areas, conservation areas, it will give developers and proponents of industry certainty if there are areas that are good for development. I think that is a process but it does take time to do it properly.

The CHAIR: This may be a bit outside the scope—the Cumberland Plain Conservation Plan. I don't know if you've had any direct visibility over that, but is that a desirable planning process to be trying to achieve conservation outcomes, biodiversity outcomes and development outcomes?

RACHEL WALMSLEY: We wrote a submission on that particular plan, CPCP, so I'd be really happy to provide that submission to this Committee. It is a good process to go through but we did identify some concerns with that plan, and so I can provide that to the Committee. That sets out what our concerns were there.

The CHAIR: What's your experience with the standardisation of instruments? We've heard quite a bit of evidence today, and it's in submissions, that that was a period in planning history, planning reality, that put serious constraints on the planning system's ability to grapple with things like climate change and local dynamics at that operationalised level. Do you have any views on the accuracy of that or whether that's a shared experience or a broad experience?

JASPER BROWN: Certainly we are aware that the standard instrument has been met with some criticism for stifling local ingenuity and creativity. I think broadly the argument for implementation of climate adaptation in a SEPP is—taking it back one step, more flexibility for climate adaptation measures is needed within LEPs. I think that probably would sum up our concern with the standardised instrument.

The CHAIR: I think it was Angus Gordon that was telling us, "We don't yet have coastal hazards in Broken Hill." I think he was trying to be a bit funny, but this idea of a standard instrument, that example shows you how perverse it can be if that's what you're trying to manage at that granular level and you've got a standard instrument. One thing you mentioned I think was in relation to the zombie DA thing, and I know that has really been an issue that many local communities have been facing. What's your suggestion about what we can do around, "Is it providing specific or express powers to be able to review those developments?" How do we grapple with that as we walk forward?

RACHEL WALMSLEY: Just finding the bit in our submission where we talk about zombie developments. What we're recommending—so division 4.9 of the Act. I think it's page 16. We're lacking page numbers. We're suggesting tightening the wording of 4.53 in terms of "building, engineering or construction work" being interpreted in a broad way. The provision should be augmented to require more substantive work to have been undertaken, so those arguments about whether work has actually commenced or whether they've truly lapsed. As you can see on that page, we've made a couple of technical suggestions about tightening that language. But to explain it at a bigger picture level, the problem with zombie DAs is that these are DAs that were decided according to standards—by the time they're activated, if they're never-ending, it could be standards set 20 years ago.

What we're saying is we need a wholesale upgrade of standards now so decisions are made with reference to what we need in terms of building design, any safety features, all those kinds of things. I think Jasper referred to them before in our conversations as dinosaur DAs. If we have dinosaur DAs that are still potentially able to be developed because we haven't tightened this loophole, that is going to potentially undermine climate reforms that we're trying to make. We're trying to lift the standards so we have better climate-ready homes, better climate-ready communities. But if we have these dinosaur DAs, they could undermine that.

And the other issue with zombie DAs is the unknown factor out there that really undermines our ability to address cumulative impacts. In a climate scenario, we want to be able to know what the cumulative impacts of a range of developments are. You can do that if you know what developments are going to go ahead, but if you have these zombie developments, it's harder to tell. They're kind of hibernating there with the ability to undermine the good things that we're suggesting be achieved through making climate-ready planning laws and processes.

The CHAIR: You may have mentioned it, but the planning system as we have it now, and know it, has been very focused around the idea of ESD. Does ESD carry through? If you were to be tasked with the responsibility of redrafting the EP&A Act now, with climate inputs through objects, operational clauses, mandatory considerations et cetera, is ESD something that still sits and is complementary?

RACHEL WALMSLEY: I think there are some really important elements of ESD, such as the precautionary principle and intergenerational equity, that are absolutely important for decision-making in plans. Decisions made today do affect future generations. There isn't always enough scientific evidence available. So these principles are absolutely imperative to keep, I'd think. But it's a really live question about ESD. If you look at the reforms happening at the Federal level to the EPBC Act, the whole idea there is that there will be new national standards for a nature-positive process for project assessment and approval at the Federal level. That's going to impact New South Wales if New South Wales is required to meet those Federal standards.

In those reforms at the Federal level, they're talking about a bit of a move away from ESD—well, augmenting of ESD with concepts like nature positive. So it is a really live issue. I think, for the purpose of this inquiry, the question is does ESD adequately address climate change? Absolutely, the precautionary principle,

intergenerational equity and the conservation of biodiversity are all highly relevant to climate considerations. They've been really important in court cases. The public interest and ESD have been important for reading climate change into the Act, but we need to go the next step further and make it explicit in the Act. Yes, there is ESD but we need to explicitly have mandatory climate consideration.

The CHAIR: The idea of nature positive—I know that Ken Henry has tabled a report and the Government of New South Wales is to respond to that. It's interesting you mentioned the EPBC Act reform because, essentially, one of the things with the planning system I think we've been a bit guilty of is running in our own slipstream—biodiversity laws over here. I think it was Angus Gordon who was saying we've got a coastal Act and we've got these separate streams. And there is your initial proposition that we need to bring this all in. Hearing you raise the nature positive has some significant climate implications because we are looking to many nature-resilience responses in relation to adaptation and how we walk forward. Is "nature positive" something that we should be looking at?

RACHEL WALMSLEY: I would say yes because, if you think about it, the climate and biodiversity crises are inextricably linked, but so are the solutions. There are solutions in climate and nature—for example, if we can have restoration projects that have a carbon benefit and a biodiversity benefit. If we protect and restore some of our carbon sinks and they're set aside in regional plans as carbon sinks, there are inextricable linkages. We're not going to solve the climate crisis by running down our natural capital reserves and destroying forests. We need to have solutions, and I think we have an opportunity, both federally and in New South Wales, to make laws that deliver for climate, nature and communities.

The CHAIR: It's interesting. We also heard evidence earlier about the health and climate co-benefits. I suppose it's really the health and nature and climate co-benefits that we're referring to in that sense. The greener infrastructure and those kinds of concepts are very important and inextricably linked to healthy communities. And, surely, if we're looking for climate-resilient communities, we want them to be healthy as well.

RACHEL WALMSLEY: Absolutely. We strongly supported the reference in the net zero future Act to the right to a healthy environment, and a right to a healthy environment necessarily brings in climate health, nature and liveable, sustainable, resilient communities. We're really optimistic about work that can be done in that area to find solutions and bring these challenges together.

The CHAIR: When you talk in your submission about holistic climate adaptation, and then you make some fantastic references to some international work, what are you getting at there? I can't give you a page number.

RACHEL WALMSLEY: Sorry about the page numbers. In the research for this submission, we did look at a lot of the available evidence and some of the ideas that are emerging, particularly in Western Sydney. I understand you've had some experts from Western Sydney present already. In that area, we've just referred to some of the more innovative ideas at the local community level of how, through building, planning and design, you can make these liveable, climate-friendly communities. We refer the Committee to the references in there, but they may well have been covered by witnesses this morning, I suspect.

The CHAIR: It's really good reading to see that some of this quite incredible work is happening. It is interesting how, in some places, some international jurisdictions are not only promoting things but they're actually requiring them as well, as part of their planning law. So, in that sense, we're going beyond the aspirational and encouragement here. We're actually saying, "Hey, through planning laws, we're making mandatory certain things." I asked the last witnesses this. Do you have a view—remember the design SEPP that went on exhibition but never really saw the light of day? Did EDO make a submission to that?

RACHEL WALMSLEY: Yes, I believe we did at the time. I will have to dig that out, but I'm happy to provide that to the Committee.

The CHAIR: That would be great, thank you. There was some evidence—the Western Sydney people were suggesting that even the idea of dark roofs and things like that, and the fact that we're still allowing that in a place where we're looking at the sweltering cities, is quite unusual.

RACHEL WALMSLEY: Absolutely. I think that had some really good ideas. And, as you say, we've got to the point in 2024 where it is time to mandate things, if these haven't happened voluntarily and they are of a benefit to communities. If making requirements, like some that were outlined in the design SEPP, is going to make—we're talking about new development, not retrofitting. If we can make sure that those new developments don't have dark roofs—I think there is a role for having more prescriptive provisions. Where there is clear evidence from other jurisdictions that there are benefits, I think that's an appropriate approach for the planning system to take.

The CHAIR: That's really interesting. There are all of these things and things in here, clearly, you've been saying for some time. I was going to say, why haven't we done it? Why are we not doing it? Do you think part of the reason is because we just haven't had to do it or it hasn't been a strong requirement to implement some of these measures that would be addressing some of the things that we're talking about today—biodiversity?

RACHEL WALMSLEY: It's lack of clear requirements. It's the lack of the mention of climate change in the planning law to drive requirements. I think there are some proponents and developers who do this really well, who are at the forefront of this. They're innovative and doing it well. We've seen strengthening of basics and certain things that have been really great and innovative, but we do need requirements at this stage to guarantee that certain minimum standards can be met. It's becoming a safety issue, a risk issue, an economic issue and an insurance issue. It's not an environmental issue. It's not just a luxury to have a safe house; it's actually an imperative. I think the planning system is way out of date and needs to be updated to make certain things mandatory.

The CHAIR: Thank you. We're out of time. Are there any final things you'd like to add?

RACHEL WALMSLEY: No. We're happy to provide those additional submissions that you've mentioned. We will send them through to the Committee.

The CHAIR: That would be very good. Thank you so much for your time, your submission and your evidence.

(The witnesses withdrew.)

Mr PAUL GRECH, Land Use Planning Director, Floodplain Management Australia, sworn and examined

Ms SUE RIBBONS, Communications Director, Floodplain Management Australia, sworn and examined

The CHAIR: I welcome our next witnesses. Would you like to make an opening statement?

PAUL GRECH: Thank you, Chair and Committee members, for the opportunity to attend the inquiry in person today. As I've just mentioned, my name is Paul Grech. I'm the land use planning director at Floodplain Management Australia, the FMA, and I'm here with Sue Ribbons, who is the communications director of the FMA. Our roles are voluntary positions. Professionally, I'm a town planner with 40 years of experience, of which most of that time has had some involvement with flood-risk management. Ms Ribbons is an engineer—so we complement each other—with substantial experience in flood-risk management. The FMA is the peak representative body for flood-risk management in Australia, with a membership of over 180 local councils, catchment authorities, government agencies, businesses, insurers and professionals involved in all aspects of urban and rural flood-risk management.

While the terms of reference of the inquiry are wider ranging, our interests and submission are confined to matters associated with flood-risk management. I appreciate that you would have read our submission, and I hope that you have had the opportunity to also consider the adopted FMA position policy on the consideration of climate change flood risk in land-use planning. I summarise the main points in our submission, with regard to the terms of reference topics, as follows: On developments proposed or approved, there is considerable and unwarranted variation between policies and planning controls, which will ultimately result in variability to the future flood-risk immunity of development and the community it supports. On the adequacy of powers and planning bodies, the existing legislation provides sufficient powers for climate change flood risks to be properly addressed. Our submission is that the application of those powers needs improvement.

On short- and long-term planning reforms, planning policies and certifications should be required to fully and clearly inform the public of existing and future climate-change-derived flood risks; there should be a State policy that provides clear and definitive direction for how the consideration of climate change flood risks should be undertaken when preparing plans or designing infrastructure; this should ensure intervention early in the planning process, be informed by catchment- or regional-scale guidance and involve a whole-of-government response; and these should be mostly short-term actions. Some will need to be medium term, but none should be long term.

Planning needs to occur now to avert the longer term consequences of climate change. On alternative options to increase housing capacity, better public information and direction about climate change flood risks, and how they will be considered in planning decisions, will avoid inappropriate development proposals and delays in decision-making; there should be targeted redevelopment of at-risk areas where opportunities exist, to both rebuild more hazard-compatible housing and increase housing densities; and structural mitigation measures can also play a role. That is a quick summary of our submission. I hope that was helpful. We are happy to answer questions.

The CHAIR: Where you're suggesting that people need to be fully aware and informed, or planning needs to be aware and informed, of both flood risks that exist today and the level of risk, how do we get that kind of identification of risk to a level that is the best that we can be doing to be informing how we plan, the instruments, what we're allowing to happen and what we're not allowing to happen in certain places?

PAUL GRECH: There are two aspects to that question. The first was how we inform people about it and the second is how we do it. How we inform people about it, in my experience, it's quite poor, it's not clear and it's not consistent. I'll give you a few examples. In New South Wales, you have to produce planning certificates. Primarily, they have to be mandatorily attached to sales contracts for property. People can order one just to understand what their situation is for their property. As part of those planning certificates, there are requirements for what you need to tell people. Those require people to be told about whether they're subject to flood-related planning controls, not whether they're subject to flood risk. That will depend on what information the council has translated into planning controls, as opposed to what information they may actually have in terms of flood risk.

The CHAIR: Why do you think that is? Why do we do that? Are you suggesting that what would be better is, if you're applying for a planning certificate, that it's mandatory that that planning certificate says, "This place is subject to flooding to this extent," or, "Our risk analysis is this"?

PAUL GRECH: That can be quite a complex thing to communicate. Some councils do have what they call flood certificates or flood information documents that they will sell or provide people separate to planning certificates. But they're not mandatory, so not everyone will obtain that information or even know about it. A better way of ensuring there's consistency, in my view, is to ensure that the planning controls themselves express flood risk in a more holistic way. It's my area of advocacy that I'm not particularly happy with the way it operates at the

moment. We advocate for a risk-based approach to planning. That, by its nature, involves understanding all of the risks to property or to people and then dealing with those risks based on the vulnerability of the property or the person. That's the risk-based approach. To do that, there would not be one flood-planning level, for example. Flood-planning levels, which probably other people have spoken about, may be at a level that is chosen for setting a floor level but also might be chosen for setting the urban footprint, or might be chosen for setting a driveway level. Or it might be chosen for setting the floor level of a childcare centre versus a hospital versus a residence versus a commercial area.

In reality, a good flood-risk management set of planning controls will have multiple flood-planning levels. The *Flood Risk Management Manual* and best practice recognises there could be multiple flood-planning levels, but the system pushes you into adopting one flood-planning level because it wants you to adopt one flood-planning area that's not necessarily the whole of the flood plain. That's the system we have. It's not the system I like, but it's the system we have. We have a definition of "flood plain" in New South Wales and have had that definition for, God, 20 years or more, or something.

SUE RIBBONS: Forty.

PAUL GRECH: A long time. Basically, the flood plain—the area subject to flooding—is everywhere up to the probable maximum flood. That's a big area in some cases, but not always. It's a scary concept because the probable maximum flood itself, being the outer edge of the flood plain, has an infinite risk. Mathematically, it's sometimes said to be about a one-in-100,000 chance of a flood happening. But we're not saying you plan for a probable maximum flood for all purposes; it just defines the area we're talking about, within which we can then provide more detailed description of risk or planning controls.

The CHAIR: I think the Government is currently—because of the flood inquiries and the work that happened after the Northern Rivers flood and then the Hawkesbury flood, the 2022 flood, the recommendations were that we move to the risk-based system. One of the things I've noticed is that the Government is now starting to introduce terms like "intolerable risk" or "tolerable risk". What does that mean to you, somebody with expertise in flood and risks?

PAUL GRECH: That's an important concept to employ when deciding, for planning purposes, what might be a planning control or what might be planning criteria. Remember, planning will happen in a hierarchical sense. There'll be the broader strategic context, where you'll be deciding on how to manage flood risk by deciding on the urban footprint, at one end of the spectrum of planning, and then at the other end of the spectrum of planning you're looking at the detail of how high the entrance to the basement garage should be. You have planning levels for all that information. Understanding a risk-management matrix, you'll employ what's tolerable or intolerable based on the context you're looking at for planning purposes.

The CHAIR: When do we start to say, "Well, there's an intolerable risk based on the modelling that will be impacted through the changing climate?"

SUE RIBBONS: There are lots of ways to quantify risk in terms of flooding. You might look at it from a damage perspective, so how much damages a property would endure in a flood for a certain depth. You might look at it from an evacuation point of view: Can everyone get out through road capacity? Even if everyone behaved like they should and evacuated when they should—

The CHAIR: We never do.

SUE RIBBONS: —is there enough road capacity? How do we quantify the risk to life in evacuation? Is it something to do with insurance? Is a tolerable level of risk looking at the amount of insurance a typical community can afford in a flood-risk area? There's a whole heap of different ways to quantify that risk. You've got flood damages, which is a property risk, and you've got evacuation and risk to life. Also, if people stay in their houses and don't evacuate, you've got a risk to life not on the road but actually in the house. That doesn't happen as much as on the road. But they're all the things that you need to think to combine to look at quantifying risk.

The CHAIR: Therefore, does a risk model move to where you actually do have to have that specified objective criteria? Or is it something that we should still be just mulling around in a decision-maker's or a planner's mind?

SUE RIBBONS: It's very hard to put a number on it. People want to put a number. They want to colour in an area. As Paul said, it's much more complex than that because you've got different land uses. You've got different parts of a flood plain. You've got the legacy issue of a town that's very flood-prone that you can't move, so you've got all these different things to consider.

The CHAIR: You say we can't move them, as in towns, but we've heard evidence that that is what we should be doing—or we should at least be identifying places and saying, "Well, that needs to be a consideration or an option." I just wonder what your views are on relocation and planned retreat?

SUE RIBBONS: Yes, it's a really complex social—as well as the dollars of buying people up and finding new land. Just that social upheaval part of it—especially, for example, you've got a town that's half really badly flood-prone and half not flood-prone. Do you split the town in two? You've got all the social issues that you need to consider as well when you're looking at planned retreat, buyback or whatever you want to call it.

The CHAIR: At the moment, say, what do you see as the current system with consultants and the way that, if I own a block of land on a flood plain and it looks to me like I could put 80 houses on it, I go and say, "Right, I'm going to get myself a flood plain consultant, who is going to show me how I can do this with fill and that sort of thing"? Where do we sit with that in terms of the strategic framework and trying to make a climate-strong approach to that kind of development?

PAUL GRECH: That's a regular thing. But a developer, with the assistance of consultants, will only move in that direction if the planning system says there's the opportunity for that. If the planning system says there is no opportunity for that, no-one will be moving in that direction. I think the greater issue is that when they do move in that direction, there is a void of clear direction about how to tackle the climate change aspects of flood risk. That will vary considerably. If you saw our position policy paper, it was born out of some survey work done through our members back in 2019. At that time it was about half the planning instruments that had some element of climate change flood risk built into them, some guidance—not always just metrics but even some qualitative consideration requirement—and half did have nothing.

So you would enter into a process where you would lodge an application, whether it would be just for rezoning or for a development application, you're further down the process and someone would say to you, "What about climate change?" Then, all of a sudden, people will say, "Well, what do you want me to do? How do you want me to measure this? What criteria are we going to apply?" There is no clear set of guidance existing anywhere to tell anyone, "This is what it should be."

SUE RIBBONS: Just going back to your comment about what to do, if you look at the ideal situation, remember, councils in New South Wales are responsible for the management of flood-prone land, not the State Government, and they've done their due diligence, they've done their flood study. They can identify where the flood plain is, where the different levels of risk are within the flood plain, and so they've got some of the story. They've got the climate change risk, but you've also got—you've got an existing risk, which is that, and then you've got the future risk in terms of cumulative impact. Have you got a future development plan? Is there climate change? So the importance of cumulative impacts—and you say, "Do we fill? If we've got a flood plain, do we fill? Okay, does that adversely affect other people?"

If you fill in that area, it is highly likely that it will impact someone else—so if you look at all your development options and say, "We can develop this area here, but if we develop this area here and fill all that, all these people will have an adverse impact." In the ideal world, if you get your crystal ball out in a realistic way and look at the future development and look at the flood risk then, then you've got a bit of an idea, and when a developer says, "I want to develop this area here," you go, "Okay, well, we've looked at that as part of our cumulative impact statement and it doesn't look too bad." So that's the issue about cumulative impacts as well.

The CHAIR: In the wake of the 2022 floods we saw the Prime Minister and the Premier at the time saying there will be no more development on flood plains, but as it turns out we are still developing on flood plains. Is that because of these very definitional issues of where is it okay to develop a flood plain?

SUE RIBBONS: By saying "the flood plain" to the flood nerds in the room, it means the entire flood plain up to the probable maximum flood, as Paul said.

The CHAIR: Yes, I was going to say, it's just about everywhere.

SUE RIBBONS: And you say, "Well, that's a zero-risk approach." I don't think that's the intention of developing on flood plains. You've got some very seriously dangerous areas of flood plains that flood very frequently. Let's focus on those. And, as Paul said, you've got different levels of planning controls and land uses for different parts of the flood plain. If I've got to put a hospital in, do I put it right down next to the river because it's got a nice view or do I put it further up the hill so I can at least evacuate and have less chance of flooding?

The CHAIR: Do you think that we're getting better with the more catastrophic floods and impacts that we're experiencing?

PAUL GRECH: In understanding them?

The CHAIR: Yes.

PAUL GRECH: Yes, definitely. The difference between the way we do things now compared to 35 years ago when I was really starting is just amazing. We are definitely getting better, yes.

SUE RIBBONS: But you're still the bringer of bad news. You're still the doomsday sayer: "This area's flood prone; it's really dangerous", and "Having done many things, it doesn't flood here anymore", those sorts of phrases. "It flooded last year; we're not going to have another flood like that for 20 years or 100 years"—those sorts of misconceptions in the community are still quite prevalent.

The CHAIR: Even in Lismore now, we're literally rebuilding State infrastructure in the middle of the CBD. It's quite unusual that—it seems that you experience a thing, you think a thing, but then you move on and time changes and you go and do something different to the thing you thought. Do you think that we are at a point where we can do very good risk management based on the models and the tools available to us?

PAUL GRECH: In my view, the tools are fantastic now.

SUE RIBBONS: Yes, definitely.

PAUL GRECH: The problem is not the tools; the problem is translating them into things like planning controls or policies or clear guidance direction, that sort of thing.

SUE RIBBONS: Yes, and then the fact that you've got the flood-risk engineers talking to the planners—that didn't happen years ago. But as Paul said, translating that technical information into planning instruments, into planning controls, that's the big gap, I think, yes.

PAUL GRECH: I guess, like a lot of planning, there is not a lot of time or resources available for everyone to do this and to labour over it. It's almost got to a point where some clear direction can be made to say, "Okay, if you're in this sort of situation, your flood-planning levels should incorporate climate change for these uses and not these uses, or all these uses, and how, so it is clear." Just something as simple as that would make a big difference in terms of consistency and ensuring that it's applied.

SUE RIBBONS: Like your greenfield sites versus your infill sites, yes, you might have different controls.

PAUL GRECH: Yes, exactly.

The CHAIR: Great. Okay, thank you. Unfortunately, our time has come to an end. Are there any final things you'd like to put on the record?

PAUL GRECH: Not that I can think of, but if there are any questions coming from you later, we're happy to follow up with further documentation.

The CHAIR: Thank you. Thank you very much for your time and your evidence today and, of course, your submission. That concludes our session for today.

(The witnesses withdrew.)

The Committee adjourned at 16:40.